

The Digital Transformation and its major impacts on British economy

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Abstract

Digitalization, or moving the operations to virtual interfaces, can benefit organizations through improved speed and efficiency. This research examines how the digitalization of businesses and education in the UK impacts economic growth. Two key questions are addressed: 1.) Has digitalizing business operations positively affected the UK's economic growth and 2.) Has digitally transforming workplaces facilitated economic growth. Literature reveals the UK as an early adopter of digital technologies, contributing 2.5% to the GDP through enhanced business performance. Virtual organizations expand the labor market by utilizing the online platforms and the remote workers. Since 2015, the increased workplace automation has reduced the basic roles but also expanded specialized positions, boosting the employment. However, smaller firms sometimes lack the expertise and resources to digitize, causing the shutdowns and unemployment. Studies show the small-medium enterprises (SMEs) benefiting from timely digital transitions through marketing, profitability, and also purchasing power improvements. Recommendations include governmental encouragement of the digital transitions and quantitative research comparing the traditional and digital organizations. In conclusion, significant relationships exist between the digitalizing business operations/workplaces and the Britain's economic prosperity. Timely virtualization allows the organizations to improve the competitiveness.

Keywords: Digital Transformation; Business; Impact; UK

1. Introduction

Digitalization or moving to virtual interfaces for better and quicker operations, is surely the need of the hour. With mounting turbulence and uncertainty in this fast paced world, speed and affectivity is what every field of life requires, be it business, education, jobs, healthcare or any other functional area. From promoting effective communication, to speeding up supply chains,

economies have certainly seen visible advantages of digitalization. To study the effects and consequences of virtual functioning on the economy, this research aims to study digitalization of organizations and education within the UK.

The research focusses on the following two questions:

1. Q1: Has the digitalization of business operations affected the overall economic growth within the UK positively?
2. Q2: Has the digital transformation of workplaces facilitated the overall economic growth within the UK?

2. Literature Review

The UK is considered as one of the earliest adopters of digital technologies, in business and workplace setups. It has been assessed that by doing so, the GDP of the country has progressed to straight 2.5%, owing to speed, convenience, accuracy and efficiency of businesses in the long run. Depending on the digital infrastructure, it can be clearly said that businesses thrive and excel ahead far more in virtual settings than in traditional ones. (Tranos, Kitsos and McCann, 2020)

It is certain that virtual organizations have given rise to expansion in the labor market, as companies now take advantage of connecting technologies and online platforms to hire freelancers and remote workers, pooling in the best talent and capabilities. It is pertinent that businesses can now excel only if they respond candidly to changing market conditions and maintain their competitiveness accordingly.

Moreover, Vrba and Linhart (2020) also suggest that there are further impacts of COVID on economy and digital sphere.

A study suggests that since 2015, labor market in the UK has seen more diversification than ever, with more businesses adapting robotic technologies to replace basic human based operations, but employing a larger labor base to operate on these robots. Hence digitized organizations are producing more jobs and eradicating unemployment in the UK, enhancing GDP growth in the long run. (Frey and Osborne, 2017)

Another study shows that lack of digital skills, low or poor broadband connectivity, resistance to change and low digital literacy among rural masses has disadvantaged smaller business units in the UK, leading to partial or complete shutdown of operations resulting in unemployment of labor. Acquiring the necessary expertise might consume considerable time, resources and funds of these businesses who have a long way to go on the road to digitalization. (Tiwasing, Clark and Gkartzios, 2022)

Other studies suggest that SMEs which have incorporated timely digitalization in their operations have seen fruitful results. These business units have certainly seen a boost with digital operations and swift online marketing. With the largest employing sector within the UK, these small enterprises have enhanced purchasing power of population strata, leading to a better income distribution and eliminating overall economic instability among masses, showing

noticeable changes in regional GDPs. such SMEs have struggled hard to reach appreciable levels of progression and profit making, all thanks to timely adoption of virtual strategies (Stankovska, Josimovski and Edwards, 2016).

3. Methodology

In order to conduct this study, qualitative research has been chosen. An electronic literature review was conducted with keywords for search as “digital businesses”, “business operations”, “virtual workplaces” “economy of UK” and “economy driven factors of UK” were considered. Articles from 2017 to 2023 were reviewed and studied and data was deduced accordingly organizations and businesses have shifted from traditional setups to virtual ones over a span of these years and have shown outcomes accordingly. Only those journals were considered, which were available in full text. Considering inclusion criteria, 5 articles were considered.

4. Results

According to the research questions, following hypotheses can be deduced:

- **For Q1: H_{0q1} :** There is no relationship between digitalization of business operations and overall economic growth in the UK.
- **H_{1q1} :** Digitalization of business operations has positively influenced the overall economic growth in the UK.

Here dependent variables are GDP Growth(x_1), labor market (x_2), business operations shutdowns(x_3) Job creation (x_4), unemployment (x_5), purchasing power (x_6). The independent variable is digitalization of business operations(y).

- **For Q2: H_{0q2} :** There is no relationship between digital transformation of workplaces and overall economic growth in the UK.
- **H_{1q2} :** Digital transformation of workplaces has positively influenced the overall economic growth in the UK.

Here dependent variables are GDP Growth(x_1), labor market diversification(x_2), income redistribution (x_3) Job creation (x_4), unemployment (x_5), purchasing power (x_6). The independent variable is digital transformation of workplaces(y). Hence both Q1 and Q2 have 6 dependent variables.

Considering the literature review, the following results have been deduced: The themes that were analyzed in these articles were: (here n is the number of times the theme was discussed or highlighted per study) (N is the total number of studies which is 5 in this case).

Ser. No.	Themes	Frequency = n	Proportion of research
1	GDP growth	3	$3/5 = 0.6 = 60\%$
2	Labor market diversification	3	$3/5 = 0.6 = 60\%$
3	Income redistribution	1	$1/5 = 0.2 = 20\%$
4	Business operations shutdown	1	$1/5 = 0.2 = 20\%$
5	Job creation	3	$3/5 = 0.6 = 60\%$
6	Unemployment	3	$3/5 = 0.6 = 60\%$
7	Purchasing Power	2	$2/5 = 0.4 = 40\%$

Table: Results. Source: own.

According to literature review, 60% of the data deduced has talked about the direct relationship of digitalization of workplaces and GDP growth. The higher the ratio of organizations shifting towards virtual platforms, the higher is the GDP growth in the UK. As the % is high, this is a strong dependent variable. Also according to study, 60% of data has shown clearly the direct relationship of Labor market diversification and digitalization of workplaces. The higher the shift towards virtual business operations, the higher is the number and type of labor available in the market. As the % is sufficiently high, this is a strong dependent variable.

According to study, 20% of data has shown direct relationship between income redistribution and digital transformation of workplaces. The higher the focus on virtualization of business operations, the better is income redistribution. As the % is not that high, this is not a strong dependent variable. According to study, 20% of data has shown inverse relationship between business operations shutdown and digital transformation of businesses. The higher the focus on digitalization of business operations, the less likely it is that the business operations would halt. As the % is not that high, this is not a strong dependent variable.

According to study, 60% of data has shown direct relationship between job creation and digitalization of business operations. The higher the shift towards virtual business operations, the more are number of jobs created. As the % is sufficiently high, this is a strong dependent variable. According to study, 60% of data has shown inverse relationship between unemployment within the UK and shift of workplaces towards digitalization. As the % is sufficiently high, this is a strong dependent variable.

According to study, 40% of data has shown direct relationship between purchasing power of individuals and shift of businesses towards virtual operations. As the % is not sufficiently high, this is not a strong dependent variable.

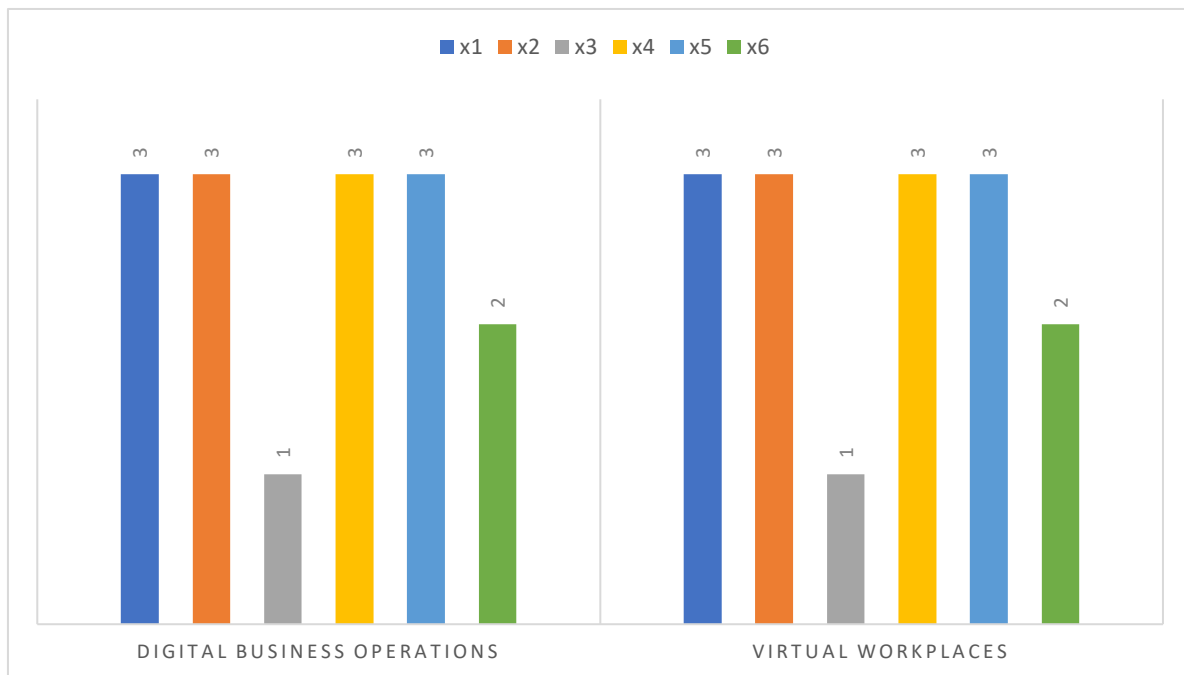


Figure 1: Influence of Digitilization of businesses on economy of the UK. Soure: Own.

Graphically, it can be clearly seen that in both research questions no.1 and no.2, all the dependent variables are showing drastic changes with respect to independent variables; implying that economic factors of the UK, both on micro and macro levels, share a significant relationship with digitalization of businesses within the country, be it the whole organizational setups, or just the business operations.

Hence, the above data clearly shows that 4 out of 6 dependent variables have a strong relationship with the independent variable, hence cancelling the null hypothesis (H0Q1) and accepting the alternative hypothesis (H1Q1) for research question no.1. Similarly, 4 out of 6 dependent variables show strong relationship with the independent variable, hence cancelling the null hypothesis (H0Q2) and accepting the alternative hypothesis (H1Q2) for research question no.2.

5. Recommendations and Conclusions

Hence it is wise to say that current research has successfully shown a significant relationship between shift of business operations and workplaces to digitalization, and economic prosperity of the UK. Businesses can only operate effectively and cope with the competitive market forces if they shift to virtual interfaces within due time and engage resources wisely.

The above research has given rise to the following recommendations:

- Keeping this research in view, it is pertinent that shifting traditional business towards virtual platforms would not only speed up organizational chain of tasks but also the economic growth in the long run. Hence the government should make staunch efforts to encourage out of date business models to incorporate digitalization for the wellbeing of economy.
- It is likely that the weak relationship of dependent variables with the independent variables can be better elaborated if quantitative in depth research is conducted comparing traditional and virtual organizations.

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