

Impediment and Effectiveness of E-commerce on Economy. A Reliability Analysis of Literacy and Employment Variables

MEHAK JAVAID

MBA In Finance, Karachi University Business School
University of Karachi.

Email: mehakjavaid202@gmail.com

Dr. SOHAIB UZ ZAMAN

Assistant Professor, Karachi University Business School
University of Karachi.

Email: sohaibuzzaman@uok.edu.pk

Abstract

The ecommerce market of Pakistan reached the rank of 46th largest market in 2020 with revenue of US\$4 billion, which makes it stand before Peru but still behind Greece. The growth of e-commerce not only helped Pakistan, but also recent 90% increase in ecommerce market of Pakistan contributed to the 29% growth around the globe. Since the increase in ecommerce had been focused hereby it is important to understand its impact on the economy of Pakistan and how we can get benefit from it. This study uses exploratory study and quantitative analysis of the chosen variable that are e-commerce as percentage of total retail sales and as percentage of GDP, along with literacy rate of Pakistan and unemployment rate of Pakistan. The analysis is conducted by using spearman rank correlation and Pearson correlation. The results of Spearman rank correlation show positive strong correlation between e-commerce as percentage of retail sales and literacy rate, which means they are directly proportional to each other. Also, the Pearson correlation results show negative strong correlation between ecommerce as percentage of GDP of Pakistan and unemployment rate of Pakistan, which means increase in any of them, would cause other one decrease. Hereby, it's concluded that there is an explicit impact of the ecommerce market in the economy of Pakistan and increase in ecommerce activities would help in decreasing the unemployment rate of the Pakistan, however, increase in literacy rate would be required.

Keywords: *Ecommerce, Employment, IT Sector, Pakistan, Literacy, Developing Economies.*

Introduction

In today's world where people cannot live without using internet E-commerce has become a crucial part of their lives from purchasing a dairy product to buying a ticket with a click of a button without visiting a physical market it is all possible due to e-commerce. It has completely changed the traditional concepts of shopping, transactions, education, marketing and so on especially in the pandemic situation sales by E-commerce has been flourished. The advancement of E-commerce in the entire world has made it feasible for economic growth.

E-commerce globally has grown enormously in the past twenty years with growth rates of sales standing at 13 percent, which equates to sales that were worth an estimated \$2.9 trillion. These figures are expected to reach \$4.5 trillion by 2021. Online shopping reached growth of 12 percent in 2017 with a worth of \$1.3 billion. There have been several studies which confirm that 18 percent of all online retail sales in Pakistan took place in 2018. Forecasts show that by 2040 it is expected that 95 percent of all retail sales and purchases will be made and facilitated online (Batada, 2020).

E-commerce provides enormous benefits for both the developed and developing worlds. Access to distant markets, speedy interchange of products and services, safe payments, spurring innovation, and providing job possibilities are among them. It has the potential to enable less developed countries, such as Pakistan, to make significant progress on the road to socioeconomic and technical development in a relatively short period of time. According to one report, IT exports will rise by 20-25 percent by 2022 in the IT sector. In Pakistan, e-commerce has the potential to improve livelihoods, boost enterprise competitiveness, and increase the country's part of global trade.

According to a United Nations Human Development report from 2017, almost 64 percent of Pakistan's population is under the age of 29, and the country will continue to benefit from the youth bulge for another 30 years or more. Because the younger generation is more open to adopting technology than the elder generation, e-commerce promotion and regulation will play a larger role in generating jobs for about 130 million Pakistani youth over the next 30 years.

Literature Review

According to the report (2019) of the Karachi Chamber of Commerce and Industry Research & Development Department, e-commerce provides a level playing field for new entrants who would otherwise be unable to compete with established enterprises without making significant investments. E-commerce will help establish brands on a global scale while also encouraging an entrepreneurial mindset in Pakistan, which will ultimately result in job creation. Pakistan needs to promote e-commerce as a strategy to boost exports and enhance tax revenue. Fiscal and current account deficits would be reduced, foreign reserves would be strengthened, and poverty would be reduced as a result.

By 2025, an increase in the use of digital financial services alone may boost Pakistan's GDP by \$ 36 billion and create 4 million jobs. According to some projections, internet stores like Daraz might generate 1 million direct and indirect jobs by 2022. As a result, focusing on E-commerce can help achieve a significant amount of the Prime Minister's recent promise to create 10 million jobs.

It was revealed in the Pakistan Economic Survey that the literacy rate of Pakistan has increased by 2% which means now it's almost 60% in 2019-20, which comparing the percentage in 2015-16 that was 58% is not an explicit increase but shows a potential in our economy to grow. The increasing literacy rate was among the population aged 10 years and above, while there was a better literacy rate in urban areas as compared to the rural areas, that is 74% and 51% respectively (Rehman, Jingdong, & Hussain, 2015).

The quantity of jobless individuals in the nation has been assessed to arrive at 6.65 million during the monetary year 2020-21, contrasted with 5.80m of the cordial monetary year. As indicated by the public authority's yearly arrangement 2020-21, Pakistan has the ninth biggest workforce on the planet which is expanding each year (Umair and Ullah, 2013). The quantity of utilized laborers will arrive at 62.91m in 2020-21 from 62.18m in 2019-20. As per the Labor Force Survey 2017-18, unemployment rate for the following year (2020-21) has been assessed at 9.56 percent (Mahmood, Bokhari, and Aslam, 2013).

Pakistan is encountering the marvel of jobless taught individuals, especially jobless alumni. The joblessness rate among degree-holders is right multiple times higher than the other in general jobless individuals (Kassem, Ali, and Audi, 2019).

Problem Statement

The literacy rate is quite low in Pakistan due to the growing poverty level. Hereby, it also badly influences the employment rate, which is decreasing and unstable. The ecommerce has shown many ways through which this problem could be resolved and economies should boost their literacy rate due to which ecommerce will enhance as a result unemployment will eradicate.

Objective of the Study

Pakistan is one of the growing economies in the world and the usage of the internet is increasing day by day among Pakistani citizens. The main objective of this research is to find out that impact of e-commerce on employment rate in Pakistan.

Conceptual Framework



Figure No1: Conceptual Model (Based On TheLiterature Review)

As indicated by the literature review, it could be seen that the e-commerce has an immense and significant value when it comes to the development of the country, especially for the developing countries likewise Pakistan (Khan, Yousaf, Mian, & Nawaz, 2013).The conceptual framework also includes the main variable of employment rate, showing that the employment rate has been found greatly influenced by the e-commerce emergence in the country. The rate in increase in ecommerce is directly proportional to the employment rate, while indirectly proportional to the unemployment rate (Haque&Ahlan, 2018).

Hypothesis of Thesis:

After the review of the literature, it has been determined that the following hypothesis should be considered in order to understand the focused problem and achieving the set objective of the study that is to understand the impact of e-commerce on the economy of Pakistan (Dawson, 2002).

H_0 : There is no significant impact of e-commerce on the employment rate of Pakistan.

H_1 : There is a significant impact of e-commerce on the employment rate of Pakistan.

Research Justification

Justification of the research remains the most vital piece of any study. It is based on three major justifications, which are namely, exploratory, descriptive and explanatory Justifications. The basic aspects through which these justifications differ from one another is the collection of the information, which varies from study to study (Gast& Ledford, 2014).

This study is based on the analysis of the impact of e-commerce on the economy of Pakistan. Hereby the use of the explanatory justification would the most effective as it helps in determining the undermining issues in the concerned study with respect to the chosen variables.

Research Approaches

It is found that there are two most essential research moves toward that might be used for coordinating any investigation consider and these philosophies are the subjective and quantitative methodology (Saunders, Lewis, &Thornill, 2016).

This study is based on the e-commerce analysis of Pakistan along with other nations to understand the impact of the ecommerce on the economy of Pakistan as we as its employment ratio. Hereby, the quantitative analysis would be the best use for this study and its analysis (Dawson, 2002; Shadish, Cook, & Campbell, 2002).

Research Methodology

Data Collection

Generally, there are two imperative methods through which collection of data for any assessment is procured; these are the primary data and secondary data. In this thesis, there is a need of testing the economic indicators and ecommerce parameter in order to understand the impact of ecommerce on the economy of Pakistan (Saunders, Lewis, & Thornill, 2016).

This makes this study use secondary data for achieving the research objective and testing the research hypothesis.

Sample Size

The size for this investigation consolidates three variables, e-commerce sale, literacy rate, and unemployment rate. While this is not it, as the information has been assembled for the time range of 2015 to 2020, for each and every variable chosen for research (Azam&Sarker, 2011).

Data Analysis

There are two sorts of philosophies that are regularly used to break down data and these systems are qualitative and quantitative. The quantitative methodology contains some test examinations of quantitative properties and their relationship (Gast& Ledford, 2014). This study incorporates no doubt use of literature review as a qualitative research part while the major of the study that is the data collected for the study is numerical, which makes it clear that using the quantitative study method would be best to analysis the data and draw results to understand the objective and test the hypothesis (McMillan & Schumacher, 2014). The chosen variables are ecommerce, literacy rate and unemployment rate of Pakistan, while for analysis of this data the Spearman Rank and Pearson correlation would be used.

Results and Analysis

The first part of the results is obtained by using the ecommerce as percentage of total retail sales, as x and literacy rate of the country, as y and applying the spearman rank correlation. Here D denotes the difference between the 2 ranks in which Rx indicates the rank of ecommerce as percentage of total retail sales and Ry is the rank of the literacy rate of the country.

Table No 1

Countries	Ecommerce as percentage of total retail sales (x)	Literacy rate of the Country (y)	Rx	Ry	D= Rx – Ry	D*D
Pakistan	19	60	4	5	1	1
Brazil	8	93	5	4	1	1
US	32.4	99	1	1	0	0
China	24.9	96.8	3	2	1	1
South Korea	27.2	97.9	2	2	0	0
						D*D = 3

It should be noted that Pakistan is ranked 4th among these countries when it comes to ecommerce as percentage of total retail and 5th for its literacy rate, which are both not good positions. Hereby, there is great deal need of improvement in the strategies used for the ecommerce as well as literacy rate in Pakistan.

$$r = 1 - \left(\frac{6 \sum d^2}{n(n^2 - 1)} \right) = 1 - \left(\frac{6 \times 6}{5(5^2 - 1)} \right)$$

Here n=5 & $\sum d^2 = 3$

$$\begin{aligned} &\Rightarrow 1 - \left(\frac{6 \times 3}{5 \times (5^2 - 1)} \right) \\ &\Rightarrow 1 - 18 / 120 \\ &\Rightarrow 1 - 0.15 \\ &\Rightarrow 0.85 \end{aligned}$$

As n = 5, and now we have r = 0.85. These results indicate strong positive relationship between the two variables that are ecommerce as % age of total retail sale and literacy rate of the country. This interprets that increase in literacy rate would help the ecommerce revenue to increase alongside and vice versa.

Next, to achieve the research objective the GDP the correlation between unemployment rate in Pakistan and e-commerce, taking it as a as percentage of GDP in Pakistan. It is well perceived from the below table , that there is a constant increase in the unemployment rate in Pakistan, by just looking at the 5 years data, 2016-2020. Due to this increase in the unemployment, it is becoming hard for the people in Pakistan to avail the ecommerce benefits and services, and so this could be a threat to the ecommerce, which for no doubt is a great influence of the GDP of Pakistan.

Table No 2

Years	Unemployment, total (% of total labor force) (modeled ILO estimate) (x)	Ecommerce as percentage of GDP of Pakistan (y)
2016	3.78%	0.08%
2017	3.94%	0.10%
2018	4.08%	0.18%
2019	3.98%	0.26%
2020	3.8%	0.34%
	Pearson Correlation	-0.029206026

Using MS Excel, the value of r is found to be -0.029 for the correlation between the two variables. The negative sign of correlation indicates indirectly proportional relationship between ecommerce and unemployment rate of Pakistan. Hence, the strong negative correlation between the unemployment rate in Pakistan and ecommerce as percentage of GDP of Pakistan, indicate that to decrease the unemployment rate in Pakistan there is a need of increase in the ecommerce activities as well as decreasing the poverty in Pakistan. Ecommerce itself has the potential to provide employment to the citizens of Pakistan, which has already been proven in the recent era.

This also helps in accepting the alternative hypothesis that there is a significant impact of e-commerce on the employment rate of Pakistan.

Conclusion and Recommendation

Conclusion

The ecommerce industry is on hype not just in Pakistan but all around the world. This makes it one of the key elements of developing economies, to stand with and survive among the developed civilizations of the world. The literacy rate of Pakistan is however found quite low, which makes it hard for the people to ensure proper understanding and knowledge of ecommerce and so its use becomes hard for them. Moreover, the low literacy rate also keeps them away from getting a better employment chance. The ecommerce, however, helps in getting good job positions with little knowledge. This refers to the idea that the ecommerce has the potential to solve the biggest issue of the economies, especially of the economy of Pakistan that is increasing unemployment rate. Unemployment is the key to various hazardous issues in the nations which includes crime, poverty, etc. The ecommerce hence would help in increasing employment chances, as the industry would boost with the requirements or demand from foreign countries.

Recommendation

Therefore, it is recommended that the focus of government policies should be on making the e-commerce tariffs easy and available for all the citizens. Moreover, the government should work on increasing the increasing literacy rate in order to achieve a better outlook in the world's economic ranking. Improved government policies and increase in ecommerce would directly increase the employment chances for the citizens, and hence it would become the solution for the biggest problem faced by the developing economies around the globe especially Pakistan. This also directs towards future research in this regard, for instance understanding the parameters that could help in growing the commerce revenue in Pakistan and alongside focusing in growth of GDP and employment rate.

References

- Azam, M., & Sarker, T. (2011). Green tourism in the context of climate change towards sustainable economic development in the South Asian Region. *Journal of Environmental Management and Tourism*, 1(3), 6-15.
- Batada, D. I. (2020, November 17). *The future of e-commerce*. Retrieved from thenews.com.pk: <https://www.thenews.com.pk/print/744670-the-future-of-e-commerce>
- Dawson, C. (2002). *Practical Research Methods*. Oxford City: Oxford.
- Department, K.R. (2019). *E-commerce – A Plausible Solution to Pakistan's Economic Woes*. Karachi: Karachi Chamber Of Commerce & Industry Research AND Development Department.
- Gast, D., & Ledford, J. (2014). *Single case research methodology: Applications in special education and behavioral sciences*. Routledge.
- Haque, M. M., & Ahlan, A. R. (2018). Can ICT reduce poverty and unemployment and elevate development integrating micro, small, and medium enterprises in Bangladesh?-Sharing Asian experiences. *International Journal of Engineering and Management Research (IJEMR)*, 8(4), 168-174.
- Kassem, M., Ali, A., & Audi, M. (2019). Unemployment rate, population density and crime rate in Punjab (Pakistan): an empirical analysis.
- Khan, W. A., Yousaf, S., Mian, N. A., & Nawaz, Z. (2013). E-commerce in Pakistan: Growth potentials and e-payment solutions. *11th International Conference on Frontiers of Information Technology*, (pp. 247-252).
- Mahmood, Y., Bokhari, R., & Aslam, M. (2013). Trade-off between Inflation, Interest and unemployment rate of Pakistan: A cointegration analysis. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 7(3), 482-492.
- McMillan, J., & Schumacher, S. (2014). *Research in education: Evidence-based inquiry*. Pearson Higher Ed.

- Rehman, A., Jingdong, L., & Hussain, I. (2015). The province-wise literacy rate in Pakistan and its impact on the economy. *Pacific Science Review B: Humanities and Social Sciences*, 1(3), 140-144.
- Saunders, M., Lewis, P., & Thornill, A. (2016). *Research Methods for Business Students*, (7th ed). Pearson.
- Shadish, W. R., Cook, T., & Campbell, D. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth Cengage learning.
- Umair, M., & Ullah, R. (2013). Impact of GDP and inflation on unemployment rate: A study of Pakistan economy in 2000-2010. *International Review of Management and Business Research*, 2(2), 388.

