



Utilizing Digital Economic Opportunities by Women SMEs in Supporting Economic Recovery

Hasdadin¹ and Melati²

Abstract

Indonesia is one of the five countries with the largest global internet users. This opens up opportunities in the development of the digital economy, including recovery efforts post-covid-19 economy. MSMEs as an economic base where the majority of actors are women. This study aims to analyze the opportunities and positions of women's SMEs; policies and infrastructure; as well as challenges and critical factors in developing the digital economy in the context of national economic recovery. The concepts (recommendations) needed in the development of a digital economy by women MSMEs in economic recovery include overcoming digital inequality between regions; strengthening digital literacy; integration of entrepreneur education curriculum (generation Y and Z); as well as enhancing the capacity of digital services in the economic base sector. At the business actor level, things that need to be done are strengthening productive business capital; provision of sales network facilities (networking); increasing product-added value with innovation; as well as protecting (Benchmark E-Commerce) MSMEs.

Key Words: Digital literacy, SMEs, Inequality

JEL Codes: M00, P12, D63

1 Introduction

Today's economic digitalization has become a global phenomenon, including in Indonesia. Economic digitalization as an implication of the industrial revolution 4.0, will soon even enter the era of society 5.0. Indonesia is trying to take advantage of digital economic opportunities in national development so that it can become the largest digital economy (largest digital economy). This is very likely considering Indonesia's position in the digital economy through startups as the second largest in

¹ Lakidende University, Unaaha, Indonesia. Email: hasddinunilaki@gmail.com

² Lakidende University, Unaaha, Indonesia. Email: ulfaiasa09@gmail.com

Asia, and sixth in the world after the United States (US), China, India, United Kingdom, and Canada.

The Indonesian Ministry of Communication and Informatics (2020) predicts that the benefits of the digital economy from digital commerce transactions (e-commerce) are around US\$130 billion and create 1,000 technopreneurs with a business value of US\$10 billion. This target is quite unfounded when referring to reports by Das et al., (2016 and 2018) and research by The SMERU Research Institute (2020) that in 2022 the potential for electronic commerce (e-commerce) in Indonesia is around US\$ 55-65 billion, in 2025 growth e-commerce recorded a transaction value of US\$ 150 billion with new job opportunities for 3.7 million people.

This achievement is very logical when viewed from the growth of new MSME players based on digital economic services (startups). The number of startups in Indonesia in 2017 was 1,400, and in 2019 it increased to 2,200. StartupRanking.com noted that startups in Indonesia in 2020 were around 2,236, and in 2021 there were around 2,219 (Merdeka.com, 2021) experienced a slight decrease due to the Covid-19 pandemic but not significantly. This fact shows the enormous role of the digital economy and MSMEs for the national economy which continues to grow and is even adaptive to turmoil (Covid-19).

The role of women in economic development (SMEs) is quite vital. McKinsey noted that the role of women in entrepreneurship has become the focus of several countries, including Indonesia, with a contribution value of around US\$ 4.5 trillion/year (Ministry of Finance of the Republic of Indonesia, 2021). Entrepreneurship (MSMEs) Indonesia contributes to a GDP of around 60% with a workforce absorption of around 97%. The number of MSMEs in Indonesia shows an increase where in 2020 there were 52 million, while in 2017 there were 49.9 million. The percentage of the Indonesian population who are entrepreneurs also shows an increase where in 2008 it was around 0.12% (Munawaroh, 2012), in 2018 it rose to around 3%, and in 2020 it became 3.47% (Ulfah, 2021). The majority (60%) of MSMEs are owned by women (Irawati and Sudarsono, 2020),

meaning that MSMEs in Indonesia are generally managed by women. In other words, women contribute greatly to the national economy.

Digital technology adaptation (innovation) for female MSMEs is a new chapter for the Indonesian economy by utilizing e-commerce services, especially in the framework of economic recovery. In this regard, several main points need to be analyzed what are the opportunities and positions of women entrepreneurs in the development of the digital economy?, how are the policies and infrastructure supported to support the digital economy?, and what are the challenges and concepts of digital economy development by women's MSMEs for economic recovery.

2 Literature Review

Most people see the economy in economic activities that use or apply the internet with its supporting facilities (mobile phones and/or computers). The digital economy is also seen as a business activity that uses digital technology on an Internet basis in buying and selling and transactions. Tapscott (2013) argues that the digital economy is a socio-political economy with a system that has characteristics in a part of the intelligence space, which includes information, various access to information instruments, information capacity, and information processing. The digital economy itself must be supported by various supporting infrastructures so that it can run well. This infrastructure by Vital (2014) mentions as a basic element, namely internet access, transactional access, and entrepreneurial activity (entrepreneurship).

The entrepreneurship (digital) is a person or group that creates a new business or increases the added value of a product/service that is creative and innovative by utilizing digital technology from both the production aspect and distribution (seller) that utilizes internet access (Melati et al., 2022). The issue of women entrepreneurs initially focused on comparing women's entrepreneurship with men and contributed to the portrayal of women entrepreneurs (Jennings & Brush, 2013). The interesting thing is why do women decide to try? According to Orhan & Scott (2001), women choose entrepreneurship

because of internal and external factors. The internal factors referred to include fulfilling economic needs, desires, talents (self-interest), heredity (traditional/hereditary), independence, career, and financial availability. External factors such as pullers can come from dissatisfaction at work (office), social status, market potential, facility support, or capital assistance. According to Mota et al., (2019), entrepreneurial motivation can be caused by two factors, namely opportunities and needs. In line with the birth of the digital economy, this can be a business opportunity for women.

It is important to note that business development efforts must pay attention to product quality, marketing or promotional design, price, all of which depend on their creation or brand (Melati et al., 2023; Melati et al., 2019; and Muthalib et al., 2018). This mechanism is of course a key factor, moreover the availability of an internet network is very possible for MSME actors to do.

3 Methodology

This writing uses a qualitative approach and a literature study. The data used comes from secondary data (literary study) by collecting information and data from various literature such as books, activity reports, articles, and journals that are relevant to the topic of analysis. The research methodology was carried out in four stages, namely: 1) observing and analyzing phenomena related to the topic of analysis; 2) examining and determining the focus of analysis based on observation and literature review; 3) tabulation of data and information from empirical sources (literature) so that it can determine the scope of the study and the originality of the study (newness); 4) analyze various data and information descriptively so that a conclusion can be drawn and then give birth to various thoughts that lead to a concept for the development of the digital economy, especially women MSMEs in the framework of national economic recovery.

4 Results

4.1 Opportunities and Position of Women Entrepreneurs in Digital Economists

This section presents digital economic opportunities in the future that are built from empirical facts by looking at development trends in the number of users, infrastructure (platforms), market patterns, and transaction values. Then it continued by examining the position of women entrepreneurs in the development of the digital economy.

In 2014 internet users in Indonesia were 88.1 million people or 32% of the total population. Five years later, in 2020 the number of internet users will increase significantly to 193.6 million people (70%), and in 2021 it is estimated that there will be 220.6 million people or around 80% of Indonesia's total population (274.9 million people). About 80% of internet users, 77% of them search for product information and make purchases.

Judging from the distribution of products that are traded sequentially are clothes (45.1%), shoes (19.2%), bags (17%), watches (6.6%), travel tickets (4.1%), hand phones/cell phones (4.1%), vehicle spare parts and accessories (1.8%), cosmetics (1.3%), and books (0.8%). This fact shows the trend pattern and interest of Indonesian digital consumers is fashion needs (87.9%). This activity is facilitated by the provision of businesses (startups) of around 8.7 million people. This means that 9.3% of Indonesia's population provides digital economy (e-commerce). When compared to the percentage of national entrepreneurs around 3.47%, it means that there has been a growth in digital economy actors (in general, startups) of around 5.8%. This growth is in line with the prediction of Das et al., (2016) that the digital economy in Indonesia will grow and be able to create 3.7 million people.

There are several e-commerce service platforms in Indonesia, including the Kaskus, Lazada, Tokopedia, Zalora, Bhineka, Berniaga, Instagram, Facebook, and WhatsApp applications. Apart from that, there is Gojek with its Gofood and Grab with its Grabfood. Lazada recorded the highest transaction value where every day there were 3,000 with a transaction value

of US\$ 100 million or IDR 958 billion/month. Followed by Zalora with 116,266 users by recording transactions of around IDR 792 billion/month. Kaskus users are around 5 million people with a transaction value of US\$ 60 million or IDR 575 billion/month. Then Bhineka recorded around 284,090 users with a transaction value of IDR 300 billion / month. The lowest transaction value is the Tokopedia application, namely 212,642 with a transaction value of around IDR 8 billion / month.

According to the Asia Social Commerce Report compiled by PayPal, around 92% of Indonesians use Facebook to open online stalls. This percentage is higher than the use of WhatsApp media, which is 76%, and Instagram, 72% (Kompas.com, 2018). Later followed by online transportation services by providing buying and selling services for MSME products. Gofood recorded the highest transaction value of IDR 55 trillion/year, while Grabfood recorded transactions of around 48.9 trillion/year.

The activities of digital economy users have benefited the national economy. In 2015 digital economic activities (e-commerce) were able to record a transaction value of US\$ 3.56 billion (Rp. 49.7 trillion), and in 2016 it increased to US\$ 4.89 billion (Rp. 49.32 trillion). Departing from the growth in the value of e-commerce, in 2021 it is estimated to be US\$ 10.21 billion. This is in line with the predictions of Das et al., (2018) who predict the value of e-commerce in 2022 will increase, even bolder to say around US\$ 55 billion. Referring to this value, there is still a gap (US\$ 44.79 billion) as well as an opportunity for the development of the digital economy. This is quite based on looking at the trend of increasing new businesses and the value of transactions generated each year. The next logical argument is that the main motivation for women's entrepreneurship is included in Indonesia by the opportunity factor. Then there are 60% of the number of MSMEs in Indonesia are women, so one comes to the conclusion that the role and contribution of women in developing the digital economy for the purpose of economic recovery is very large. At this point, it becomes an obligation for the government to

respond to this as soon as possible with various policies and the provision of digital infrastructure.

4.2 Policy and Infrastructure Support in Supporting the Digital Economy

The digital economy is an ecosystem in which every element (internet access, government, and business actors) supports and influences one another. This section focuses on the Government's role in the digital economy ecosystem in relation to policies and the provision of supporting infrastructure for e-commerce activities.

The digital economic policy began with the birth of Presidential Regulation (Perpres) No. 96 of 2014 concerning the 2014–2019 Indonesia Broadband Plan, which was then continued by President Joko Widodo through the Palapa Ring program in Presidential Decree No. 3 of 2016 was later revised with Presidential Decree No. 56 of 2018. This instrument was technically followed up by the government in the 2015-2019 RI Ministry of Communication and Information Strategic Plan through Perkominfo Regulation No. 21 of 2016. National policies related to e-commerce benefit from Government Regulation (PP) No. 80 of 2019 concerning Trading Through Electronic Systems. The state through PP No. 80 of 2019 provides priority and protection, provides tax incentives, and protection for MSMEs.

The main goal of Palapa Ring is to unite all corners of the country through the internet network. Begin to build a fiber optic network of 12,128 km in 57 districts/cities and 11 provinces with a focus on eastern Indonesia. In 2022 the target is the construction of 3 special satellites in the 3T area and 4,000 transmitter stations (BTS) for remote villages.

A year after the Palapa Ring program yielded positive results for the digital economy where 10.25 million (19.71%) MSME actors have used non-lapaks on internet media and are connected to digital platforms (Arianto, 2020). Even though the reach of digital platforms has not been able to cover all regions in Indonesia, currently MSME players (42%) have used social media as a means of promotion and buying and selling. The

latest study conducted by McKinsey shows that e-commerce media during Covid-19 grew by 26% with a total of 3.1 million transactions per day.

These facts show that policy instruments and the availability of digital economy service infrastructure are able to maintain national economic stability (even during a pandemic). How strong is the role of MSMEs in the national economy, it is only natural that the development of the digital economy through MSMEs is the answer in post-Covid-19 economic recovery efforts.

4.3 Challenges and Concepts of Digital Economy Development through MSMEs

Referring to a study by The SMERU Research Institute (2020), there are seven important issues that must be considered in the development of the digital economy, namely disparities between regions, sectors, genders, levels of welfare, education levels, demography, and gaps in internet usage. The seven issues, the authors divide them into aspects of challenges and opportunities.

4.3.1 Challenge

According to the author's point of view, the focus of attention on challenges in the development of the digital economy is regional disparities, between sectors, gender, and internet users. The gap between regions in the development of the digital economy, especially MSMEs, is that internet users are still concentrated in urban areas (53%), around 47% of whom are in Java. Another fact shows that there are 30% of villages that have not reached the internet at all. If the accumulated proportion of disparities between regions is still below 50%. The gap between sectors is seen as having a high role in national GDP but is still constrained by internet services.

The gap between genders (gender) seen from the average internet users, in general, is male (46%), the fact is that the majority of MSME actors are women, and the products that are traded in general are factions that are identical with Women. The last gap as a challenge for the digital economy is the characteristics of internet users because 80% of internet users,

87% of them only use social relations, and only 17.92% are used for digital economic services (buying and selling of goods/services).

4.3.2 Opportunity

Aspects of welfare (income), education, and demography as opportunities to address the challenges of developing the digital economy in Indonesia. Along with the decline in the poverty rate in the last decade, it has implications for an increase in the level of welfare. A study by The SMERU Research Institute (2020) shows that around 69.10% of internet users have high incomes, 46% have middle incomes, and 28.30% have low incomes. In the next study, internet users with master's/doctoral degrees in general (97.29%) use the internet and open online stall opening services; around 93.11% with diploma/graduate education; Senior High School about 77.18%; Junior High School about 55.89%; Elementary School about 21.29%; and not attending school 2.82%. The next opportunity is based on demographic characteristics (generation/age), where more than half (80%) of Y and Z (youth/millennial) use the internet every day. The rest are advanced generations and toddlers.

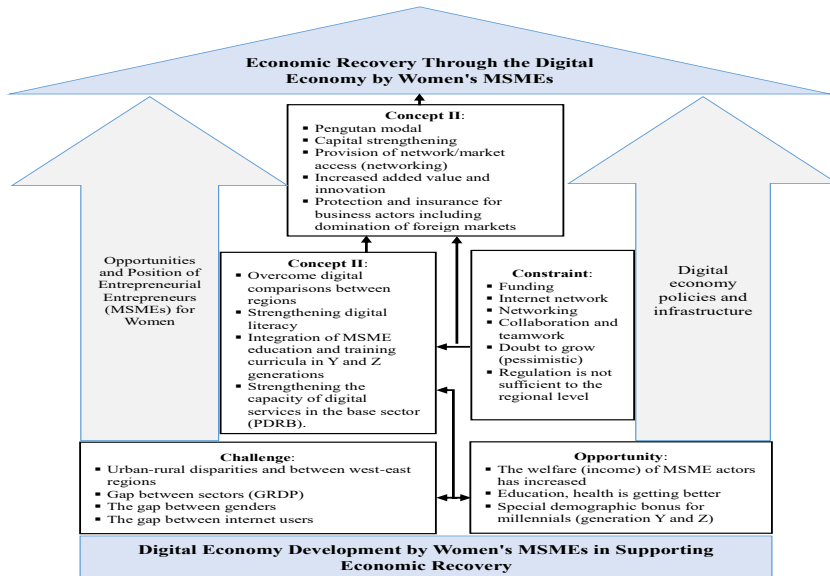
4.3.3 Constraints and Concepts of Digital Economy Development

Responding to the problem of MSME development in general, the Ministry of Communication and Informatics (2020) states that there are six (6) obstacles to the development of the digital economy, namely aspects of funding, network or networking related to market access, team cohesiveness, doubts about developing (taking risks), limited market, and finally is the regulatory aspect. For the benefit of developing the digital economy of female MSME actors in the future, the authors construct a concept that is built based on the linkages between challenges and opportunities, as well as constraints with challenges and opportunities to determine key factors as shown in the figure below (Figure 1).

The first concept-development approach that was built from the linkage of challenges with opportunities gave birth to four agendas as key factors in developing the digital economy

for women MSME business actors, namely: 1) Overcoming digital inequality between regions through accelerating the Palapa Ring (Sky Toll program); 2) Strengthening digital literacy in productive age (high consumption); 3) Integration of the entrepreneurship education curriculum in creating new business actors (Y and Z generations); and 4) Strengthening the capacity of digital services in economic base sectors such as agriculture, fisheries, and maritime affairs as well as the processing industry.

Figure 1
Model of Digital Economy Development by Women MSMEs in Economic Recovery



The second concept building is the result of the construction of the challenges and constraints of business development at the business actor level by giving birth to four important concepts namely; (1) Strengthening business capital for productive MSME actors for women; (2) Provision of network sales facilities (networking) in expanding the market; (3) Increasing the added value of products with innovation based on market share (type of product); and (4) Protection of UMKM

(Benchmark E-Commerce) from foreign investment and domination.

5 Conclusion and Recommendation

The role of women in the digital economy in the framework of economic recovery is very likely considering their participation as the majority actors from MSMEs in Indonesia. The transaction value from businesses using e-commerce is quite good and even shows an increase every year so that Indonesia's position as the world's e-commerce giant. The Palapa Ring program has connected all regions of the archipelago, becoming an opportunity that must be utilized for economic development based on MSMEs.

Policy support participates in supporting the development of MSMEs for economic recovery after the Covid-19 pandemic through Minister of Information and Communication Regulation No. 21 of 2016 concerning the 2015-2019 Kemkominfo Strategic Plan. Then Government Regulation no. 80 of 2019 is also able to excite and protect MSMEs.

The current challenges in developing the digital economy for MSME actors are regional disparities, between sectors, gender gaps, and internet utilization actors. Responding to these challenges, opportunities that need to be maximized for the purpose of developing the digital economy are welfare (income) which continues to increase, education of good internet users, and demographics.

The recommendations in the study refer to the concepts that are built (challenges, opportunities and constraints), namely at the policy level and the community or business actor level in the context of developing the digital economy for economic recovery. Recommendations at the policy level are: 1) Overcoming digital inequality between regions through accelerating the Palapa Ring program; 2) Strengthening business capital for productive MSME actors for women; 3) Strengthening digital literacy in productive age; 4) Integration of the entrepreneur education curriculum in generating new entrepreneurs (generations Y and Z); 5) Strengthening the capacity of digital services in economic-based sectors such as

agriculture, fisheries and maritime affairs as well as the processing industry; and 6) Protection of MSMEs (Benchmark E-Mommerce) from foreign investment and domination. Recommendations at the community and/or business actor level are: 1) E-commerce-based financial management to increase market confidence and facilitate access to capital; 2) Optimizing digital services for promotion and building market networking without borders; 3) Increasing product added value with innovation based on market share (product type) including generation Y and Z demands; and 4) Building corporations including with foreign platforms for the benefit of e-mommerce benchmarks.

References

- Abdelrehim, N., Maltby, J., & Toms, S. (2011). Corporate social responsibility and corporate control: the Anglo-Iranian oil company, 1933–1951. *Enterprise and Society*, 12(4), 824-862.
- Acemoglu, D., & Robinson, J. (2012). *Why nations fail. The origins of power, prosperity and poverty*. New York: Crown Business.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review*, 91, 1369–1401.
- Ahmad, K., Ali, A., & Yang, M. (2022). The Effect of Trade Liberalization on Expenditure Structure of Pakistan. *Bulletin of Business and Economics (BBE)*, 11(1), 73-84.
- Aidt, T. S., & Franck, R. (2015). Democratization under the threat of revolution: Evidence from the great reform act of 1832. *Econometrica*, 83, 505–547.
- Muhammad Ali, Al Harath Atiek, Abdoulrahman Aljounaidi, Fariba Azizzadeh, & Ganbar Tavassoli. (2022). Benefits of Islamic Economic System and its fruits in real life: a comparative analysis. *International Journal of Economic Studies and Management (IJESM)*, 2(6), 1348–1355.
- Ali, A. & Naeem, M.Z. (2017). Trade Liberalization and Fiscal Management of Pakistan: A Brief Overview. *Policy Brief-Department of Economics, PU, Lahore*. 2017(1), 1-6.

- Ali, A. (2011). Disaggregated import demand functions of Pakistan; An empirical Analysis. M-Phil Thesis, NCBA&E, Lahore, Pakistan, 1-70.
- Ali, A. and Bibi, C. (2017). Determinants of Social Progress and its Scenarios under the role of Macroeconomic Instability: Empirics from Pakistan. *Pakistan Economic and Social Review*, 55(2), 505-540.
- Ali, A., & Ahmad, K. (2014). The Impact of Socio-Economic Factors on Life Expectancy in Sultanate of Oman: An Empirical Analysis. *Middle-East Journal of Scientific Research*, 22(2), 218-224.
- Muhammad A., Atiek, A. H., & Azizzadeh, F. (2022). The devastation of COVID-19 & Its economic effects on developing countries: a global analysis, *Journal of economics & Management Sciences*,3(2), 29-41.
- Ali, A., & Audi, M. (2018). Macroeconomic Environment and Taxes Revenues in Pakistan: An Application of ARDL Approach. *Bulletin of Business and Economics*, 7(1), 30-39.
- Ali, A., & Şenturk, I. (2019). Justifying the Impact of Economic Deprivation, Maternal Status and Health infrastructure on Under-Five Child Mortality in Pakistan: An Empirical Analysis. *Bulletin of Business and Economics*, 8(3), 140-154.
- Ali, A., Audi, M., & Roussel, Y. (2021). Natural Resources Depletion, Renewable Energy Consumption and Environmental Degradation: A Comparative Analysis of Developed and Developing World. *International Journal of Energy Economics and Policy*, 11(3), 251-260.
- Ali, A., Audi, M., Nisar, S., & Senturk, I. (2022). Determinants of Public Procurement Efficiency: A Comprehensive Study of Public Procurement Rules of Punjab, Pakistan. *Empirical Economics Letters*, 21(3).
- Ali, A., Mujahid, N., Rashid, Y., & Shahbaz, M. (2015). Human capital outflow and economic misery: Fresh evidence for Pakistan. *Social Indicators Research*, 124(3), 747-764.
- Arshad, S., & Ali, A. (2016). Trade-off between Inflation, Interest and Unemployment Rate of Pakistan: Revisited. *Bulletin of Business and Economics (BBE)*, 5(4), 193-209.

- Arzu, C. A. (2011). Studying the relationship between employees occupational burnout levels and satisfaction of life: A research in private banks. *African Journal of Business Management*, 5(16), 6825-6838.
- Ashraf, I., & Ali, A. (2018). Socio-Economic Well-Being and Women Status in Pakistan: An Empirical Analysis. *Bulletin of Business and Economics*, 7(2), 46-58.
- Audi, M & Ali, A. (2017). Socio-Economic Status and Life Expectancy in Lebanon: An Empirical Analysis. *Archives of Business Research*, 5(11), 159-170.
- Audi, M. Sadiq, A. Ali, A. and Roussel, Y. (2021). Performance Evaluation of Islamic and NonIslamic Equity and Bonds Indices: Evidence from Selected Emerging and Developed Countries. *Journal of Applied Economic Sciences*, 16(73), 251-269.
- Audi, M., Ali, A., & Al-Masri, R. (2022). Determinants of Advancement in Information Communication Technologies and its Prospect under the role of Aggregate and Disaggregate Globalization. *Scientific Annals of Economics and Business*.
- Audi, M., Ali, A., & Roussel, Y. (2021). Aggregate and Disaggregate Natural Resources Agglomeration and Foreign Direct Investment in France. *International Journal of Economics and Financial Issues*, 11(1), 147-156.
- Baker, H. K., Hargrove, M. B., & Haslem, J. A. (1977). An empirical analysis of the risk-return preferences of individual investors. *Journal of Financial and Quantitative Analysis*, 12(3), 377-389.
- Banks, A.S. and K. A. Wilson. 2013. Cross-National Time-Series Data Archive. Databanks International. Jerusalem, Israel.
- Boix, C., Miller, M., & Rosato, S. (2013). A complete data set of political regimes, 1800-2007. *Comparative Political Studies*, 46, 1523–1554.
- Brown, K. C., Harlow, W. V., & Tinic, S. M. (1988). Risk aversion, uncertain information, and market efficiency. *Journal of financial economics*, 22(2), 355-385.

- Brown, S. J., & Warner, J. B. (1980). Measuring security price performance. *Journal of financial economics*, 8(3), 205-258.
- Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of financial economics*, 14(1), 3-31.
- Brustein, R. S. (2006). *Millennial Stages: Essays and Reviews, 2001-2005*. Yale University Press.
- Campbell, K., Gordon, L. A., Loeb, M. P., & Zhou, L. (2003). The economic cost of publicly announced information security breaches: empirical evidence from the stock market. *Journal of Computer security*, 11(3), 431-448.
- Chauhdary, N. S., Ghufuran, B., & Khakwani, M. S. (2021). Impact of Behavioral Biases and Decision Analysis Methods on Investment Performance of Individual Investors at PSX. *Journal of Accounting and Finance in Emerging Economies*, 7(4), 1003-1017.
- Cheibub, J. A., Gandhi, J., & Vreeland, J. R. (2010). Democracy and dictatorship revisited. *Public Choice*, 143, 67–101.
- Chen, A. H., Robinson, K. J., & Siems, T. F. (2004). The wealth effects from a subordinated debt policy: evidence from passage of the Gramm–Leach–Bliley Act. *Review of Financial Economics*, 13(1-2), 103-119.