

Chapter: 07

EVALUATING INDIA'S DIGITAL LEADERSHIP: EMPHASIZING READINESS, INNOVATION AND COMPETITIVENESS IN THE GLOBAL GOVERNANCE LANDSCAPE

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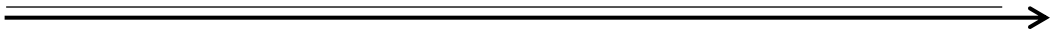
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ABSTRACT

The purpose of this research is to analyze the digital leadership landscape across the G20 countries, with a particular emphasis on their preparedness, innovation initiatives, and competitive positioning in the fast expanding digital era. Because of the huge impact that the digital revolution has had on economies throughout the world, it is necessary to conduct an exhaustive assessment of the degree to which nations are prepared to use digital technology in an efficient manner. A thorough awareness of the possibilities, difficulties, and strengths that exist within the digital landscapes of G20 nations is the goal of the findings of this study, which aims to provide such an insight. For policymakers, corporations, and other stakeholders, this evaluation offers significant insights that may guide plans to improve digital leadership, stimulate innovation, and strengthen competitiveness in a world that is becoming increasingly digitalized.

Keywords: *Digital, Innovation, Leadership, Competitiveness, Readiness.*



1. INTRODUCTION

It is becoming increasingly apparent that the omnipresence of digital technologies and their fast growth are defining characteristics of the global environment. The capacity of nations to navigate and lead within this dynamic environment becomes a critical determinant of their economic development, societal advancement, and global influence in this era of digital transformation. This is because of the fact that digital transformation is a phenomenon that is occurring. The Group of Twenty (G20), which is comprised of the world's most important economies, is at the vanguard of this digital revolution. It is comprised of a wide variety of countries that have various degrees of preparation, innovation, and competitiveness in the digital arena. Through the examination of their preparedness, innovative skills, and competitive strengths in the field of digitalization, the purpose of this extensive research is to evaluate and analyze the digital leadership of the G20 nations. The realization that digitalization is more than just a matter of technological breakthroughs is the driving force behind the urgency of this investigation. Digitalization has the power to influence economies, societies, and geopolitical landscapes.

One of the most important aspects of this research is the evaluation of the level of digital readiness among the G20 countries. Among these are the evaluation of the fundamental components that form the basis of a nation's digital infrastructure, the rates of technology adoption, the level of digital literacy among the population, and the regulatory frameworks that control digital technologies. For the purpose of appreciating

the total preparation of each nation to accept and harness the power of digitalization, it is essential to have a thorough understanding of the differences and strengths that exist within these basic support structures.

In addition, this research provides a substantial amount of attention on the investigation of the innovation ecosystems that are common inside the G20 nations. One of the primary forces behind digital transformation is the introduction of new technological innovations. Therefore, in order to determine a country's capacity for digital innovation and adaptation to emerging technological paradigms, it is necessary to evaluate the vitality of start-up cultures, the amount of money invested in research and development, the degree of collaboration between academic institutions and businesses, and the implementation of cutting-edge technologies. In addition, among the most important aspects that are being investigated is competition in the digital realm. For the purpose of gaining an understanding of how the G20 nations position themselves in the global digital economy, many factors are evaluated. These factors include global market integration, e-commerce penetration, digital trade laws, cybersecurity measures, and data privacy rules for example. In addition to having an impact on their capacity to entice investments, these factors also play a vital part in the process of encouraging economic growth that is both sustainable and durable.

Furthermore, it is impossible to overstate the magnitude of the socio-economic influence that digital leadership has. The purpose of this study is to investigate the concepts of inclusion, equal access to technology, and the development of digital skills, as well as the consequences these concepts have for labor markets and the well-being of society. The formulation of policies that promote fair growth and reduce possible inequities originating from technology transitions is facilitated by an understanding of the societal ramifications that digital innovations have as a result of their implementation. It is the purpose of this study to give policymakers, industry leaders, and stakeholders with insights that may be put into action through the use of a thorough and comparative analysis. The findings that were obtained from this research endeavour are intended to serve as a road map for the purpose of building an environment that is favourable to digital transformation, sustainable growth, and global competitiveness within the nations associated with the G20 and beyond.

2. REVIEW OF LITERATURE

Cahyadi, Afriyadi & Magda, Robert. (2021) More extensive study is needed on the digitalization of leadership practices. The leaders of today's economy need to foster an innovative culture while keeping in mind the global perspective. We discovered that the G20 nations have the capacity for digital leadership in terms of innovation,

competitiveness 4.0, and digital preparedness. The G20 nations led the world in digitization. When it came to innovation and digital preparedness, a few of them were dependable. While some demonstrated consistency in their 4.0 innovation and competitiveness 4.0, others demonstrated consistency in their digital readiness and competitiveness 4.0. Innovation, competitiveness 4.0, and digital preparedness are favorably correlated. Kokot et al., (2023) An environment that is always changing means that organizations require managers who can react swiftly to unstable situations. These circumstances cause conventional leadership to shift and give rise to new leadership that is known as digital leadership (DL), according to recent research. This study paper's primary goal is to investigate, in the context of digital transformation (DT), the degrees of digital maturity (DM) and digital literacy (DL) in small and medium-sized Croatian businesses. 156 firms made up the study sample, and the findings showed comparatively high levels of DL; in fact, almost four organizations attained the greatest level of DM. The level of DL and DM showed a negative association, according to the data. While it was not suggested that gender affects the degree of DM, gender was shown to have an influence on the DL level. Mark Elder and Anna Bartalini. (2019) The degree to which the G20 nations are putting significant effort into implementing the Sustainable Development Goals (SDGs) is evaluated in this research. This evaluation, which is based on a study of the degree to which the G20 nations disclosed actual policy actions and budget allocations in their Voluntary National Reviews (VNRs), focuses on budgetary allocations and policy measures. Prior evaluations of VNRs have placed more emphasis on implementation structures, stakeholder engagement, data and indicator progress, level of readiness for implementation, achievement of goals, targets, and indicators, and special topics like "leave no one behind" than on budgets and policies. It is also very difficult to assemble the necessary data and properly evaluate efforts due to significant methodological obstacles. In particular, this paper concludes that it is sometimes difficult to discern between new and current policies, and that nations' VNRs most likely do not provide a comprehensive or comparable assessment of policies or budgets. As a result, evaluating their overall importance and efficacy is challenging. However, our study reveals that the G20 nations who filed VNRs between 2016 and 2018 acknowledged making rather considerable efforts, particularly with regard to a wide number of policies and, in some instances, sizeable expenditures. Furthermore, a large number of nations seem to be underreporting policies and budgets linked to the SDGs, particularly those that are already in place and have contributed to the first stages of goal and target attainment. The stated priorities of each nation may be inferred from their budgets and policies. The usefulness of these initiatives is a crucial subject for further study, although it is not covered in this paper. Nonetheless, it is crucial to gauge efforts rather than simply outcomes, and nations should keep reporting on their budgets

and policies linked to the SDGs. Pandey et al., (2023) Because of the digital revolution, IT innovation is now essential to corporate success. One of the main factors influencing digital agility is digital leadership. Still, there is a lot to learn from digital agility studies. The influence of digital leadership on IT innovation in business organizations was investigated by the authors using the dynamic capabilities. Process macro was used to assess a survey of 250 IT experts located in the US. The study's conclusions add to the body of knowledge on digital leadership by highlighting the critical roles that interteam cooperation and digital leadership play in fostering IT innovation in businesses. The study's practical consequences emphasize how important it is for firms to cultivate digital leadership in addition to knowledge integration and inter-team cooperation. Karaköse et al., (2022) In the current era, workplaces are inexorably becoming more digital, mostly due to technological advancements. This has led to a paradigm shift and the emergence of new, creative business models and business practices, necessitating the possession of specific digital skills by leaders in order to ensure sustainable corporate performance. As a result, research on digital leadership has become more popular, drawing interest from scholars and industry professionals throughout the globe. But utilizing scientific mapping techniques, a thorough examination of the intellectual architecture, knowledge organization, and thematic growth of the area of research on digital leadership has not yet been carried out. Consequently, the goal of the present research was to examine the development and intellectual framework of the subject of digital leadership using bibliometric and science-mapping analysis. The phrase "digital leadership" was used in this research to refer to a broad range of leadership philosophies, including leadership 4.0, technological leadership, virtual leadership, and e-leadership, all of which have interchangeable definitions. In order to do this, papers relevant to the study topic were extracted from the Scopus database using SciMAT software (version 1.1.04), and bibliometric performance and scientific mapping analysis were carried out on them. The study's findings showed that publication output is continuously rising and that the field of digital leadership research is progressively broadening and diversifying. Furthermore, period-based analysis demonstrated that the themes of technology management in the first, virtual teams and technology in the second, and COVID-19, virtual reality, and digital technologies in the third emerged as the motor themes and served as the primary focus of this field's research. Thematic evolution analysis revealed that the following research themes were noteworthy and well-developed: technology leadership in all three periods, virtual teams in the second period, e-leadership and technology in the second and third periods, digital leadership, COVID-19, and virtual reality in the third period, and virtual leadership during the first and second periods. By exposing the conceptual framework and thematic development of the digital leadership

knowledge base, these results contribute to a deeper comprehension of the area of research on digital leadership and serve as a guide for further investigation.

3. PROPOSED METHODOLOGY

Determining the G20 nations' capacity for digital leadership is the study's main goal. Basic necessities, human capital, ease of doing business, government and corporate investment, environment start-ups, technological infrastructure, and technology adoption are the seven elements of digital readiness.

4. RESULTS AND DISCUSSION

Global Competitiveness, Global Innovation, and Global Digital Readiness Scores Correlation The G20 Countries' 4.0 Scores The relationship between the G20 nations' global competitiveness 4.0, worldwide innovation, and global digital readiness is explained in this part. Table 1 indicated that the US was the G20 nation with the greatest score based on the digital readiness, innovation, and competitiveness 4.0 scores. Australia came in third and South Korea in second place for digital readiness. In terms of innovation, Germany came in third and Britain came in second. Germany ranked third and Japan second in terms of 4.0 competitiveness. The nations with the greatest digital capabilities were (1) the United States, (2) South Korea, (3) Australia, (4) the United Kingdom, (5) Japan, and (6) Germany.

Table 1. Global Innovation, Global Competitiveness, and Global Digital Readiness Scores: The G20 Countries' 4.0 Scores.

Ranks	G20 Countries	Digital Readiness Scores	Innovation Scores	Competitiveness 4.0 Scores
1	The United States	19.01	61.69	83.5
2	South Korea	18.19	56.51	79.7
3	Australia	17.91	50.31	78.9
4	The United Kingdom	17.89	61.31	81.4
5	Germany	17.81	58.19	81.9
6	Japan	17.71	54.68	82.1
7	Canada	17.293	53.88	79.8
8	France	16.21	54.25	78.9
9	Italy	14.79	46.26	71.5
10	Russia	13.59	37.59	66.5
11	Saudi Arabia	13.38	32.90	70.0
12	China	13.19	54.79	73.6

13	Argentina	13.08	31.89	57.1
14	Turkey	12.91	36.92	62.1
15	Mexico	12.34	36.08	64.8
16	Brazil	12.29	33.79	60.9
17	Indonesia	11.72	29.69	64.6
18	South Africa	11.40	34.04	62.6
19	India	9.6	36.61	61.7

Table 2 demonstrated that innovation (0.603) and digital readiness (0.600–0.799) had a substantial and favorable association. Additionally, there was a noteworthy and robust positive correlation of 0.75 between competitiveness and digital preparedness. Meanwhile, innovation and competitiveness 4.0 (0.929) had a noteworthy and very strong positive connection (0.800–1000).

Table 2. Pearson Correlations between Digital Readiness, Innovation, and Competitiveness 4.0 of the G20 Countries

		Digital Readiness	Innovation	Competitiveness
Digital Readiness	Pearson correlation	1	0.688**	0.750 **
	Sig. (two-tailed)		0.001	0.000
	N	19	19	19
Innovation	Pearson correlation	0.688**	1	0.929**
	Sig. (two-tailed)	0.001		0.000
	N	19	19	19
Competitiveness	Pearson correlation	0.750**	0.929**	1
	Sig. (two-tailed)	0.000	0.000	
	N	19	19	19

The study's findings demonstrate the existence of digital leadership at the macroeconomic or national level. We experimentally shown that in 2019, the G20 nations possessed human capital, infrastructure for digitalization, ease of doing business, investment from businesses and governments, start-up environment, infrastructure for digitalization, and adoption of technology. In 2019, they possessed creative outputs, human capital and research, infrastructure, market sophistication, business sophistication, and innovative institutions.

5. CONCLUSION

This paper focuses on digital leadership capabilities. In conclusion, the assessment of digital leadership among G20 countries underscores the intricate interplay between readiness, innovation, and competitiveness. Collaborative efforts in enhancing digital infrastructure, fostering innovation ecosystems, and upskilling populations will be pivotal in ensuring sustainable and inclusive digital transformation globally. The G20's role in facilitating knowledge sharing and policy collaborations becomes crucial to harness the transformative power of digital technologies for collective progress in the digital era.

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