

PANDEMIC AND THE CRITICAL ROLE OF KNOWLEDGE MANAGEMENT

EDITORS

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PREFACE

Pandemic and the Critical Role of Knowledge Management

COVID-19 has been one of the worst pandemics of the century due to its high contagiousness emerging like a Black Swan phenomenon, which created crises worldwide in the health systems, economies, financial systems, retail markets, tourism, and hospitality industries, educational systems, and employment. It created an unprecedented disruption and lockdowns in all the domains of our life. The world was caught unprepared for disruptive power to handle the crises. Before the COVID-19, emergent contagious diseases such as avian influenza, MERS, SARS, and Ebola had produced many deaths and showed the power of an epidemic in many countries worldwide. However, the novel coronavirus pneumonia (COVID-19) was more challenging and devastating.

Due to the extended lockdowns and virtual work situations, the COVID-19 pandemics necessitated the organizations to exploit knowledge and creativity for their survival and growth. To handle the lifetime crises, organizations started using knowledge management as a strategic resource to mitigate health and socio-economic effects. Effective knowledge management (KM) practices helped organizations launch effective countermeasures against such crises. This book on “*Pandemic and the Critical Role of Knowledge Management*” comprises twenty (20) chapters covering the critical role of knowledge management during COVID-19 pandemics. This edited book presents the research work of several researchers working in knowledge management and related areas. A brief abstract of each chapter is provided below.:

Chapter 1 - A Chronological Overview of Important Events of Coronavirus Disease 2019 (COVID-19) within the Framework of Information Management

Burcu Esin İliş - İstanbul University, Turkey

Serdar ÖZTÜRK - İstanbul University, Turkey

Coronavirus Disease 2019 first appeared in Wuhan Province of China on 31.12.2019 and as of its progression it was defined as a pandemic disease by the World Health Organization (WHO) on 11.03.2020. In terms of these features, covid19 has affected the whole world very quickly and comprehensively. Quarantines, full closures, distance education, remote work, vaccine and drug studies in the health sector have emerged as priority areas. With the increase in physical distances, a digital transformation process has been started, so information access has become more accessible and its management has gained more importance. This study covers the chronological compilation of important developments regarding covid19 in the period from 31.12.2019 to 10.05.2020 in the world and with emphasis on events in Turkey. With the chronological evaluation of the information flow, it is aimed to emphasize the importance of evaluating the process in terms of information management. When 59 news within the scope of the research are evaluated, the titles of new covid19, coronavirus disease, covid pandemic 2019, coronavirus gain importance first of all.

Chapter 2 - Managing the Knowledge About the World Within the Framework of Epistemology in The Metascientific, Acquisitional, Documentary, And Applied Sense

Prof. Zdzislaw Wasik - Wroclaw School of Banking, Poland

Epistemology, pondered on the level of the sciences of science, deals with dispositional knowledge shared by all theorists of science. With the assumption that epistemology is a theory of knowledge about the world, the first part of this chapter discusses three approaches to epistemology as a domain of study, where general knowledge is seen as an objective potential of all information, as a subjective state of acquaintance with selected information achieved through individual cognition, as well as a textual body of information recorded in and transmitted across various media of communication. Subsequently, the fourth understanding of the epistemology in the applied sense is pondered in the second part of the chapter dealing with ethical-moral aspects of knowledge management, its acquisition, documentation, and dissemination. As regards the conclusions and investigative postulates, the final part of the chapter summarizes the knowledge about the relationship between the world and reality under the heading of the incompatibility of worldviews in the perception of reality and the hierarchies of worlds coupled with semiotic modeling systems. As a result, estimating the growth of knowledge about the world, researchers might pose the questions pertaining to the sign-and-mind-related extension of the human lifeworld or the planet Earth as a globe inhabited by all species as living organisms through semiosphere or noosphere. Regarding the cosmological idea of the world as a totality of phenomena, it is suitable to discuss in a more extensive work, the conceptual and methodological interrelationships between semiosphere and biosphere, between – biosphere and noosphere, and the commonalities between the ranges of semiosphere and noosphere.

Chapter 3 - Information Sharing Approaches During Pandemic Process in Turkey and The World

Ebru İnan Barutçu - Haliç University, Turkey

Information is the whole of all kinds of facts and understanding obtained through learning, research, and observation. Information sharing is the voluntary exchange of information with each other in line with the realization of certain goals of the individual, organization and society, and the acceptance of existing information between two voluntary departments through interaction and communication. Based on information sharing, it is important that information emerges from a certain source and that the information obtained reaches its purpose. Detailed sharing of information has advantages over society and states during the global pandemic process. With the support of the shared information society, it can create mechanisms for the cooperation of different segments and the continuation of life in different ways. It is known that sharing information effectively and transparently during the pandemic process increases trust

between states and society while increasing compliance with the measures and measures taken in line with the shared information and thus the process is better managed. Also, the accuracy of information sharing during and after the pandemic, during and after vaccination and the methods chosen for this sharing are very important. Therefore, during the pandemic, different approaches and methods were followed in the world and in Turkey for sharing information about the pandemic process. During the pandemic, states also began to share information through government Covid-19 web portals. This study, it is aimed to analyze the information-sharing approaches in governments Covid-19 web portals followed during the pandemic process.

Chapter 4 - Information Pollution in the Covid-19 Epidemic Period: Importance and Examples

Sirine Ben Naceur - İstanbul University, Turkey

Halil Ibrahim Altun - İstanbul University, Turkey

In this period, called the information age, when access to information is the fastest and easiest, humanity is fighting the epidemic it has faced in some periods of history. There are fundamental differences that distinguish this epidemic process from others. Spreading fast on a global scale and receiving and sharing information from all over the world thanks to the internet are some of these features. From the very beginning of the outbreak, the First agenda of social and conventional media has been the Covid-19 virus. Many unfounded claims have been made regarding the covid-19 epidemic, which is the main topic of the agenda, and information pollution has been opened up about the epidemic. Because it is about health, people are trying to get information about the fatal Covid-19 virus. Using social media and messaging platforms, people share every content they encounter about the epidemic with their own network, which leads to the rapid spread of information types called misinformation and disinformation. The concept of “infodemic” has been put forward by the WHO to draw attention to the pollution associated with Covid-19. “Infodemic”, which is as dangerous as an epidemic in this epidemic process, where dirty information is spread faster than a virus, is an obstacle to accessing accurate information. In this study, examples of information pollution in the period from the beginning of the epidemic to the vaccination process were compiled and classified from local internet newspapers and internet newspapers containing claims on social media.

Chapter 5 - Importance of Information Sharing and Social-Psychological Reactions During the Pandemic

Yakup Selçuk Yıldırım - İstanbul University, Turkey

Over the course of COVID-19, social media has become a space where the news and updates on the pandemic are monitored closely, to the degree that, thanks to its characteristic speed and power, it has been one of the primary sources of information. Nevertheless, the

lack of editorial control over the content, rapid dissemination of manipulative discourse, and casual exchange of unsourced information on social media have also brought at times information pollution within these circles. Information pollution and unreliable sources of information, exerting a negative impact on the individual's psychology, may drive the society to despondency, uncertainty, anxiety, and undesirable behavior and may even beget a state of chaos. This chapter examines, within the scope of the COVID-19 pandemic, solely the effects of information sharing through social media and traditional media tools on the psychology of society and attempt to explain with examples the behavior and reactions of the masses. It has been observed that the shares on social media platforms have affected the mass psychology by shaping the behavior, emotions and consciousness of individuals through anonymity, contagion and indoctrination susceptibility, and that, as a result, people have exhibited various common positive and negative reactions. It has been observed that restrictive practices such as lockdown and voluntary isolation, which were implemented to protect public health during the pandemic, have led to an increase in the use of internet and social media, and that the time spent on social media in this period has affected people's moods negatively by leading them to feelings such as fear, anxiety and uncertainty.

Chapter 6- Survey About Online University Teaching During Covid-19 Lockdown

Jan GUNCAGA - Comenius University in Bratislava, Slovakia

Mária BELEŠOVÁ - Comenius University in Bratislava, Slovakia

The proposed chapter highlights some of the challenges that university teachers and students have faced. They had almost no earlier practice in online teaching during Covid-19 pandemic situation. Selected university students from Faculty of Education, Comenius University in Bratislava were interviewed to share their experiences with online teaching and learning during the Covid-19 lockdown. They were asked also to describe, what were their impressions of this situation from their social and personal point of view. All collected written answers received from students were categorized. According to this coding were created several categories, to which are assigned authentic examples of student testimonies. The code in the used research methodology meant the most frequent occurrence in the collected answers. The aim of this introductory small-scale research contribution is to provide a basis for future research for the influences that the Covid-19 situation had upon the educational process, as well as to assist educational providers in foreseeing and eliminating the possible problems of lecturers when establishing the online educational environment. There are formulated some conclusions from interview survey, which is possible for further research, because many difficulties from the students' point of view are related to the social status of students, presented qualitative research from discussed categories in the paper shows, that situation of students from their personal, family, health status has big influence on their attitude to online teaching. Continuation and comparison of this kind of research with other countries can bring new results.

Chapter 7 -The Knowledge Management in Education During COVID-19

Biljana LAZARESKA - OOU Vera Jocikj- Skopje, Macedonia,

Biljana STOJANOVSKA - OOU St. Cyril and Methodius, Centar- Skopje, Macedonia

Knowledge management is especially important in times of crisis. Good management in any area, strategies, and making the right decisions are key in overcoming the Covid 19 crisis. In education, we found five necessary stages for better knowledge management: planning, reviews, implementation, evaluation, and post-planning. Planning should include strategic and operational planning at all levels. It is important to plan support for each component of the education system. In the planning process, the most important thing is to set goals, which can be short-term and long-term. Goals should be carefully prepared and structured, as well as measurable. That is, the system should enable monitoring of the implementation and achievement of the goals. The review process is important to anticipate and perceive all the shortcomings of the planned strategy and to overcome them before it is implemented. If you complete the previous steps but do not proceed with the next implementation - then it is as if you bought all the products for a meal, but did not put them on the plate to eat. The most acceptable way to achieve and monitor the implementation is to prepare a diagram of activities, which contains the activities, time of execution, executors, and the like. No conceptual development is possible if everything that is planned and organized is not monitored and evaluated. Post-planning is needed to respond quickly to changes in society. One such example is the Covid 19 crisis when we had to react quickly and post-planning quickly.

Chapter 8 - Distance Education and Collaboration Tools

Mustafa Çetinkaya - İstanbul University & Haliç University, Turkey

The new type of coronavirus has spread all over the world, unlike many viruses that originated in China and are controlled in certain spaces. Reducing social contact has great importance in the fight against COVID-19. Social contact is high in educational institutions and businesses and there is a risk of virus contamination in vehicles used to reach educational institutions and businesses. So, in the process of combating COVID-19, measures to restrict social life that will affect educational institutions and businesses were needed. Educational institutions have switched to distance education to continue education, and businesses have switched to remote working to ensure business continuity. Learning management systems are used in distance education, and tools that will increase interaction with text messaging and video calling applications are used as support. Within the scope of the study, the selection of tools and methods in the transition to distance education, current practices, problems, and solution suggestions are discussed. The role of massive online open course platforms in distance education has been examined. In the aspect of remote working, how information systems, cloud-based software, online collaboration tools, and remote access and virtualization applications are used as tools and techniques during the

pandemic process were evaluated. Educational institutions and businesses had to provide digital transformation and adaptation to the new situation faster than they should. Although the tools and methods used did not provide many aspects of face-to-face communication, they did ensure the continuity of education and work.

Chapter 9 - A study of Students' Opinions about Media platforms and Distance Education in the COVID- 19 Pandemic

Farnaz Zeidi - Istanbul University, Turkey

Lalah Azar - Istanbul University, Turkey

The coronavirus pandemic has spread around the world. People are witnessing high mortality rates and the number of people suffering from this disease on a daily basis. Meanwhile, the world moved towards the use of digital media in the field of news awareness, education and business, and so on. Researchers also shared their research findings and opinions on social media, and official institutions disseminated a wealth of information electronically. Therefore, the reliability of the information shared over electronic platforms is a matter of curiosity about which platforms people mostly use and how often. On the other hand, in this process, states act to take necessary precautions in many areas from health to economy, from security to production. One of these areas is education. In Turkey, transition from the formal education model to the distance education model has been achieved at all levels from primary schools to universities. Despite the many advantages of distance education, there is no consensus on whether it is as effective as formal education. Therefore, this study investigates students' opinions of distance education and media platforms in the COVID-19 pandemic when Turkey entered quarantine for first time and the distance education is completely switched. This study discusses two stages: In the first stage, students' views on distance education were investigated. In the second stage, it examines which platforms students mostly use and how often these platforms are used. In this direction, the research sample consists of undergraduate and graduate students studying at Istanbul University.

Chapter 10 - COVID-19 impact and Digital Transformation in Global Supply Chains

Ali Alsaç - İstanbul University-Cerrahpaşa, Turkey

The coronavirus epidemic has brought production and distribution networks all over the world to a standstill. Borders have been closed; international travel, face-to-face meetings, tourism activities and trade has come to a standstill. Countries that supply their essential needs such as pharmaceuticals, food, raw materials and industrial intermediates to a large extent from foreign countries have almost shuttered. The purpose of this research, conducted under these conditions, is to examine the relationship between the COVID-19 pandemic and its effects on global supply chains and management. It has been tried to understand

the effects of the COVID-19 outbreak on global supply chains and supply operations. It is aimed to provide an academic perspective on the lessons learned from the process and the proposed solutions. Specifically, five research questions are addressed: What disruptions are COVID-19 causing in global supply chains? How does the literature portray the supply chain lessons learned from the COVID-19 related disruptions? What are the suggested solutions in the literature against the problems caused by the pandemic in the supply chain? How will global supply chains work in the future? What are solutions focused on digital technologies, resilience and flexibility for the future functioning of global supply chains? Six supply chain vulnerabilities, six solution or resilience capabilities, and seven clusters of technologies deemed particularly useful in mitigating future pandemic disruptions were identified. Based on these findings, a number of managerial implications and pathways are proposed for future research.

Chapter 11 - The Importance of Artificial Intelligence-Based Data Analysis in the Coronavirus Pandemic Process

Muhammet Karadeniz - Bilecik Şeyh Edebali University, Turkey

Ceren Çağlar - İstanbul University-Cerrahpaşa, Turkey

While “artificial intelligence and data” are of great importance in our age, this importance has increased with the announcement of COVID-19 as a Pandemic by the World Health Organization on March 11, 2020, and various technological products with artificial intelligence-based data analysis also support humanity in its struggle. From disease prediction to modeling the pandemic process, from detecting the development of the virus to the sociological effects of the pandemic process, accurate and meaningful data have an impact on many areas. In this context, many datasets were created, many academic publications were made and many applications or projects were developed during the pandemic process. Providing data sets, publications, applications and projects with open access enables all these studies to feed each other and thus, the emergence of a wide variety of studies on COVID-19 in the field of artificial intelligence. In this chapter, studies in the field of data analysis based on artificial intelligence are mentioned in order to contribute to the pandemic process.

Chapter 12 - Reflections of Changing Habits with the Digital Transformation Process in the Coronavirus Epidemic Period

Zeynep Uylaş Aksu - İstanbul Bilgi University, Turkey

There have been various transformations in social habits with the rapid development of technology. Today, the development of technology has caused a digital transformation in many areas. While digital transformation was slow in some periods, it occurred rapidly in other

periods. Digital transformation has gained speed in many areas of the world, including Turkey with the coronavirus epidemic. This virus, which seriously affects the health of society, has caused the formation of a global pandemic. While societies apply various isolation methods to protect themselves from the epidemic, the continuity of economic and social life has been achieved through technology. While a limited lifestyle causes people to be deprived of their daily routines, the digital transformation in the fields of information sharing, money management, business, culture, education, and shopping has contributed to the continuation of the social life order. In this research, examples of digital transformation taking place in different areas during the global coronavirus pandemic process and its effects have been examined. These examples have been discussed under five main headings: information exchange, payment methods, shopping, culture and art, business, and school. Although digital transformation does not progress at the same pace in all areas of our lives, it has been seen that it is a strong alternative for societies to survive in sudden and unpredictable crises. It has been recommended that societies become familiar with digital transformation against possible crisis situations that may be encountered in the future and continue by integrating digital transformation into certain parts of life.

Chapter 13 - Intertextuality and Translatability of Knowledge in Nature and Culture

Elżbieta Magdalena WAŚIK - Adam Mickiewicz University, Poland

Human knowledge is traditionally defined in terms of its theoretical, practical, and also creative aspects, related to the respective spheres of human activity, as well as of its explicit and implicit dimensions, distinguished from the viewpoint of the degree of the individual's realization of the fact of having or the means of arriving at it. Against the background of the distinction between theoretical and practical knowledge, this paper will allude to the concept of phenomenological knowledge, defined – from the viewpoint of the lived experiences of human individuals – in terms of the human activities of thinking, speaking, and writing of texts as their products. In particular, it will argue that the concepts of intertextuality and translatability are crucial for the clarification of the processes of social and intergenerational transfer of knowledge. The concepts of intertextuality and translatability are helpful in explaining how it happens that during the process of transferring knowledge, various losses occur, which are related to the nature of both the process of communication and human abilities of reasoning and understanding. It is clear that the more intermediate levels there are between the sender and the recipient, the greater are the losses in the transmission of knowledge. At every stage, there are, in fact, distortions related to the form of knowledge and its understanding. Therefore, remembering that texts are the most important management tool in knowledge management, ways should be sought to minimize knowledge loss and distortion.

Chapter 14 - The Impact of Covid-19 on Teaching and Learning Modes: Case of Higher Education Institutions in Constantine, Algeria

Souad SASSI BOUDEMAGH- Laboratory "Architecture, Ville, Métiers et Formation", University of Constantine 3 -Salah BOUBNIDER-, Algeria

Ouafa SAIGHI- Laboratory "Architecture, Ville, Métiers et Formation", University of Constantine 3 -Salah BOUBNIDER-, Algeria

Like all countries in the world, Algeria has been hit by the COVID pandemic, which has plunged all sectors into emergency, paralyzing the majority of them by lockout measures, including Higher Education. The latter, mainly affected in terms of academic calendar and pedagogical content, has adopted new teaching methods in response to the contingency. This chapter explores the different modes of teaching and learning adopted by Algerian universities, in order to face the constraints of the pandemic. The research reviews the different scenarios implemented by the higher education authorities in response to the difficulties encountered by the different actors involved in the teaching and learning process. The survey was conducted on two axes. The first, an analysis of official websites and e-learning platforms of Algerian universities in order to extract information related to the subject. The second, an exploration of the organizational and regulatory framework developed by the Ministry of Higher Education in order to cope with the pandemic. The results of this research show that the Algerian university was not ready to manage such a crisis. The transition to distance learning was a late experience for the vast majority of universities. However, it appears that the pandemic has created a challenge for some universities; the adopted approaches have stimulated their capitalization efforts and triggered a "certain digital evolution (revolution)". Unfortunately, the pandemic has brought to the surface old (and deep) problems such as the lack of ICT readiness of universities, the lack of Internet access for students and the lack of resources on the student side.

Chapter 15 - The Global Consequences of "Knowing": Information Dissemination and Disparity in the COVID-19 Pandemic

Gary M. Grossman - Arizona State University, School for the Future of Innovation in Society, College of Global Futures, Tempe Arizona, United States of America

COVID-19 gripped the world with its sudden onset and its devastating impacts. The world was caught seemingly unaware, and even in nations with advanced information and dissemination pathways, the emergence was so fast as to neutralize any advantage a presumed level of development contributed. Much more important has been the effective use of information in the response to the onset of the virus. This chapter examines the differences between regions and nations in terms of the rate of vaccination; rates of confirmed cases in those nations; death rates; and development criteria and explores what we might expect

in the future as far as the progress of the virus and our attempts to contain it. Finally, these conclusions are drawn together to explore just how damaging COVID has been to our decision-making and governance infrastructures. Whatever may occur, the only hope for the nations of the world will be to create and implement policy that works, decision-making that is transparent in its creation and execution, and accessible information that flows freely to all citizens of all nations. These goals or something very close to them will be required for the world and its citizens to have a future within the current paradigm. COVID-19 may well be just the beginning. Many more potentially greater challenges are ahead of us. One area of hope may rest on what we are learning about combatting the global pandemic. Those lessons can be very useful in dealing with the challenges ahead.

Chapter 16 - Knowledge Management in the COVID-19 Period: Misinformation and Disinformation

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Nadire Cavus - Near East University, Faculty of Economics and Administrative Sciences, Department of Computer Information Systems, Nicosia Cyprus

While the coronavirus continued to negatively affect daily life almost every country resorted to various measures of closure and partial restriction of social life as required by the local pandemic conditions. The access to information practices of the internet age, in other words, the information age, has caused people, who are social beings, to turn to social networks during the COVID-19 pandemic crisis. This increase in the need for knowledge has directed people, to seek detailed and further information from social network sites. In this period, misinformation and disinformation activities in social networks have negatively affected the users, causing damage to the individuals within the framework of their increasing needs for correct knowledge. For this reason, the need to acquire and manage information correctly has become more important than ever, especially for protecting individuals' security, privacy, and ethics. This review study identified that the governments should attempt to control the COVID-19 infodemic and should correct information with humans by using media such as radio, television, newspapers, and popular social networks that could be used for this purpose. The result of the literature review showed that there is too much misinformation as well as disinformation on social media sites used mostly by people all over the world. Unfortunately, people tend to believe what they read on social media sites irrespective of the source of the information. For this reason, governments official information activities should continue and all people's need for accurate information should be met, just like their other needs.

Chapter 17 - The Transition from the Educational Environment to the Educational Ecosystem: Digital Transformation and Partnership in Ukrainian Education

Denys Kovalenko - Ukrainian Engineering Pedagogics Academy, Educational and Scientific Institute of Pedagogy, Psychology, Management and Adult Education, Ukraine

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It can be associated that the present-day urgency of digitalization in education with the digital economy demand for personnel trained to work in accordance with its ideology and technology. Digitalization consistently enters academic and managerial activities in higher education. These trends characteristic of modern universities give rise to the concept of “digital university” and subsequently to the advanced concept of a digital university ecosystem. The case study considers debatable aspects of shaping modern academic interactions in the context of digitalization in education. The concept of digital university ecosystem is the focus of our attention. The outcome of implementing digital technologies in teaching and management at Ukrainian and foreign universities, prospects and limitations in their path, as well as the risks associated with digitalizing universities are analyzed for example in Ukrainian education. Progressing integration of educational ecosystems due to digitalization and globalization qualifies critical thinking and creativity, teamwork, emotional and social intelligence, decision-making responsibility, intention to “serve” others, and cognitive flexibility as core values. Transforming and modernizing universities do NOT only aim at implementing new technologies, but at obtaining an educational result, which involves an increase in practice-oriented competencies. In this regard, it is advisable to analyze the trends associated with transforming the concept of “digital university”, relevant foreign theoretical input and its practical implementation. It has been come through that it is necessity to consider a wide range of factors that consider the diversity of environments, objectives and results in the course of shaping digital university ecosystems. The key conclusion is the demand for integrating the concept of digitalization into the strategy of universities.

Chapter 18 - Platforms Offered To Human Use in The Process of Information Sharing

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In the last quarter of 2019, pneumonia cases of unknown cause were detected in Wuhan, China. Before long, World Health Organization named this new virus SARS-CoV-2 and

named the disease COVID-19. The disease began to spread between countries in a short time, and as of March 2020, Covid-19 was declared a pandemic by WHO. In this disease, where the rate of transmission is high, sharing of information is critical in the management of the epidemic. In this current epidemic, patient samples in hospitals, imaging and laboratory results of the patient, research findings on vaccine studies, information on currently used treatments, guidelines created by leading institutions and organizations such as the World Health Organization, local governments' recommendations to cope with the epidemic. It is known that a large amount of data including regulations and anti-epidemic policy information has been reached. This study, it is aimed to identify the platforms that can be evaluated within the scope of information management during the COVID-19 pandemic process, to define and categorize the functions of these platforms. Within the scope of the study, information sharing platforms and software tools were examined. Accordingly, in this study, platforms that enable data transfer between laboratories, dashboards with instant data, platforms with data sets for the use of researchers, and social media are summarized in 4 categories.

Chapter 19 - Role of Knowledge Management during COVID-19 Pandemic – A Perspective

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Novel coronavirus (COVID-19) pandemic impacted office operations and education globally. It has had enormous global economic, political, and social ramifications, affecting productivity and competitiveness. Organizations switched fast to virtual operations. The pandemic reduced output, yet companies battled to go on with normal operations. Remote or virtual work became the standard across sectors, making onboarding difficult for certain firms and workers, especially new recruits. Organizations swiftly responded to the pandemic and devised creative technological solutions. The true goal of developing KM-based solutions is to establish systems that capture, store, and exchange the knowledge and expertise of people inside the company. Organizations will increase their efficiency and enhance their decision-making abilities by making workers' expertise and information available to other employees or decision-makers inside the firm. Despite the fact that the coronavirus pandemic was a global calamity, it demonstrated the need of establishing KM-based systems in enterprises. Although the relevance of knowledge management is expanding every year, the requirement for KM-based tools and systems became critical for ongoing operations during the pandemic. In the absence of such systems, many businesses struggled and eventually shut down, resulting in millions of dollars in losses. The chapter describes how knowledge management

(KM) technologies helped firms cope with the pandemic without shutting down operations and production. Organizations need to invest in knowledge-based technologies and systems to better prepare for any future pandemic situation. This knowledge-based system, along with other information managed by the government, could help in better responding to a pandemic.

Chapter 20 - The Impacts of Pandemic on Managerial Competences and Innovations in Education

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The aim of the paper is to reflect lessons learnt from online education under the pandemics, and focus on selected aspects of online education. The teaching and learning in online conditions became a challenge for educators and learners at universities. The adaptation and betterment of online education is a challenge of contemporary theory and practice of education at universities. Online education has set up a number of new issues in sense of educational procedures and practices in online environ, the formulation of educational goals, information design of curriculum and its delivery, the use of relevant principles of psychology and theory of education. The acquisition and command of digital competencies in learning of learners is substantial for the employability of university graduates, as emerging professions are going to be based on digitization. The upskilling in digital competencies and innovations in curriculum delivery have become ultimate challenges in professional development and personal growth of university educators.

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