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New Delhi Institute of Management in its journey of attaining several milestones in the areas of research and education, takes pride in sharing with the community its editorial masterpiece, 'Anusandhan-NDIM's Journal of Business and Management Research'.

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New Delhi Institute of Management

Affiliated to Guru Gobind Singh Indraprastha University

61, Tughlakabad Institutional Area, Near Batra Hospital

New Delhi – 110062.

Ph. 011-29962605/6

Website: www.ndim.edu.in

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From the Chairperson's Desk

I am pleased to see that the research team brought together nationally and internationally renowned scholars to contribute to this promising journal, which is entering its fifth year. Turning to our Feb 2023 journal issue, we again present a diverse selection of stimulating articles from the researchers.

We are here with a new issue of the journal now. First paper is on Originative educational protocols in the post pandemic period in the Romanian primary schools by Ph.D. Associate Professor, Anca Manuela EGERĂU, Aurel Vlaicu University of Arad and Ph.D. University Lecturer, Henrietta TORKOS, Aurel Vlaicu University of Arad.

Second paper is on Nexus Between Economic Growth and Unemployment Rates: A Bibliometric Analysis of Various Methods and Mechanisms by Dr. Sana Fatima from Symbiosis Centre for Management Studies, NOIDA, Dr. Prabhat Mittal, from University of Delhi and Dr. Renu Jain, from University of Delhi.

Third paper is on Game Theory Model Application in Social Networking Sites: A Comparative Analysis of Facebook and Instagram by Mr. Raj Kumar from Guru Kashi University.

Fourth paper is on Digital Competences of Teachers – Strategies of Training and Attitudes during the Pandemic of COVID by Tiberiu Dughi, Ph.D., Assoc. Prof. Aurel Vlaicu University of Arad, Dana Dughi, Ph.D., Lecturer, Aurel Vlaicu University of Arad; and Henrietta Torkos, Ph.D., Lecturer, Aurel Vlaicu University of Arad.

Fifth paper is on Digital Payment System Development in India by Mamta Rani, Assistant Professor, Rattan Professional Education College, Sohana, Mohali (Punjab).

And Sixth paper is on Examining the Media Consumption Behavior of Females in India by Dr. Harikishni Nain from University of Delhi.

Book review on *"Contagious: Why Things Catch On"* by Dr. Ansari Sarwar Alam has been added in his issue and will continue in forthcoming issues as well.

As always, I would like to thank our steadfast Research and Development team for their efforts and I hope that the incoming journal issues will continue to strive to improve the work ethic and appreciation of research work.

Bindu Kumar

Dr. Bindu Kumar
Chairperson, NDIM

From Editorial Desk

NDIM journal is proud to enter into its fifth year. Anusandhan continued its mission of advancement of scholarship and understanding of contemporary issues. Research team worked countless hours on journal publication, sacrificing time and sanity to ensure that this year's journal stood up to the high expectations set in place by the editorial board.

With cooperation of readers, authors, reviewers and researchers our Journal is in progress continually publishing articles of national and international researchers. We use plagiarism policy as per UGC guidelines and subsequent improvement of papers by authors after receiving plagiarism reports from us is praiseworthy. Authors are forthcoming and open to several revisions till plagiarism is reduced as per standards. This process helped us maintain the quality standards of our journal.

Reviewers provided unbiased reviews while authors followed their suggestions and improvised their papers. We appreciate their efforts for helping us in not compromising the quality of the journal.

Some papers could not be accepted. We hope it will not discourage authors from sending us their manuscript in future. They are requested to keep reviewer recommendations in mind and send their research contribution again.

'Book Review' is a new feather in the hat of NDIM journal. Now, Book Review will be a regular feature of journal from this issue.

Proof reading for grammatical mistakes and paraphrasing is done by our team more than twice which is a distinctive attribute All these are promising signs. We could reach this stage through the constant support of Board Members and intellectual generosity of the readers and contributors (authors and reviewers).

Anusandhan strives to see suggestions and implementation for the continuous improvement of the journal in future. Mail at editor@ndimdelhi.in for any views/recommendations and suggestions.

Madhu

Prof.(Dr.) Madhu Arora
Editor-in-Chief

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Anca Manuela EGERĂU[1] and Henrietta TORKOS[2]
1. PhD. Associate Professor, Aurel Vlaicu University of Arad
2. PhD. University Lecturer, Aurel Vlaicu University of Arad

Abstract: *The pandemic period had let deep traces on the educational processes all over the world. Schools had to reevaluate their approach towards education in general, replacing methods and strategies with adaptable ones to this new situation. Now, in the post-pandemic times, there are new challenges that educational systems and families have to face. Due to social distancing, children have specific fears regarding group activities in the classrooms. Some of them refuse to completely get involved and participate in the daily routines, especially when the activities are built in an interactive manner. Considering these facts, we have created this article which contains a few original educational practices that are based on outdoor learning activities that are carried out in the outside areas, in order to promote healthy interactions between pupils. In the first part of the article, we present a few theoretical and conceptual bases of outdoor education, the way it is practiced in the primary schools from Romania and some of its advantages. In the second part, we are presenting some innovative good practices that are based on outdoor education and that are dedicated to primary school pupils. The main results of implementing these protocols in the practice show that children are more open to participate in the solving of common tasks, also they cooperate more* and socialize, also developing transversal competencies.
Key words: innovation, post-pandemics, outdoor, protocol, primary school.

Introduction

Under the special conditions imposed by the pandemic with the new Sars-cov-2 coronavirus, educational institutions reopened all over the world for the 2020-2021 school years. The central and local governments were thus confronted with unprecedented challenges in the last century in managing the education process, which traditionally involves groups of children and young people under the best possible physical distance, the basic premise to limit the spread of the new virus. (Vancu&Egerău, 2022)

The pandemic has had a significant impact on education and has exacerbated the region's existing social inequities. (Schembri et al, 2021).

Schools are not only places for academic education, but also for developing social and emotional skills, interacting with others, and receiving social support. Governments, ministries, and schools are faced with the challenge of planning the educational process during extremely busy times. Following a significant disruption to the educational process caused by school closures and quarantines, states have the restrictions gradually

lifted while essential protection measures, particularly those related to distancing physics, were maintained. However, because the virus is still circulating worldwide and no vaccine has been developed, societies are preparing for a "new normal," in which education will be different from what students, teachers, and families are used to. Some states are preparing a variety of scenarios for the new academic year, including school reopening and distance learning.

Literature review

In order to provide essential and quality education at all times, schools have to go from closure to recovery. In times of educational recovery when every educational specialist tries to adapt to the new, and to create and implement original educational protocols in the post pandemic period, Romanian institutions have tried also to answer the main questions that still stand. (Egerău et al, 2020)

One of the protocols that have been proposed, and the one that we are going to discuss in the following article is that the Ministry of Education has been launching a call for projects dedicated to educational activities outside the classroom.The purpose of launching this call is to increase the participation rate in primary and secondary education and develop integrated prevention measures, as well as improve the skills of teaching staff, so that quality educational services are ensured, in harmony with the needs of students and the promotion of an inclusive school.Children can develop completely and harmoniously if, in addition to classroom subjects, they have the opportunity to express themselves through art, music, sports, or if they receive guidance in various knowledge they need in life in the outdoors. (Dughi & Roman, 2008, Roman & Co arbă, 2020)

Outdoor education and play promote emotional, behavioral, and cognitive development. Students who learn outside develop a sense of self, independence, confidence, creativity, decision-making and problem-solving skills, empathy for others, motor skills, self-discipline, and initiative, according to studies.Outdoor experiences can allow to explore, discover, and appreciate the natural world while also being active, strengthening fine and gross motor movement skills, pushing your physical limits, and getting dirty. Time spent outside should be an important part of every child's daily routine. (Beery, 2020).

When asked to recall their favorite childhood memories or those related to their way of playing, each child recalls with affection and involvement at least one instance when they played outside in the bushes or grass, pretending to be food and using twigs and leaves in their activity. Others describe sitting under a tree and gazing up at the sky, meditating and relishing the moments of peace and silence. A few enthusiastically recall times when they climbed trees or ran around at dawn inventing all kinds of games with no resources or materials other than those found in nature. Despite the positive memories associated with outdoor play, some teachers are hesitant to incorporate outdoor education activities into the instructional-educational process.Most teachers refuse to take the initiative to remove students from the classroom because they claim they do not understand this type of education well enough, which may lead to a decrease in learning effectiveness. Others avoid these

activities because they are uncomfortable in a completely new environment, and they are afraid of disruption and dirt. In addition to providing students with pleasant and lasting memories, outdoor education and experiences in nature provide many more benefits to children than those listed above. Vigorous physical activity can reduce obesity, improve concentration, and foster the development of social skills.

The physical environment can contribute to children's well-being, happiness, creativity, independence, and the free expression of their experiences and opinions, all of which are linked to learning quality. Choices made in a formal educational setting, such as educational resources, materials, spaces, layout, air quality, lighting, and access to a variety of indoor and outdoor experiences, have a direct impact on the quality of learning opportunities for students. (The indoor & outdoor environment policy, 2013).

It is critical for young children to have frequent and consistent opportunities to explore and learn in their surroundings, and this should not be viewed as an optional activity. There has been a cultural shift in our society in recent years that has reduced access to and use of outdoor spaces by many children and young people. Growing adult concerns about children's safety are contributing factors, as are technological advances that have resulted in an overabundance of sedentary activities performed indoors, such as watching television, using video games, and playing computer games. (Waite, 2009)

Some of the most important reasons of using outdoor education in the post pandemic educational activities are presented as it follows:

- encourages the development of a healthy and active lifestyle in children by providing opportunities for physical activity, freedom of movement, and the promotion of a sense of well-being;

- provides children with contact with the natural world and unique experiences such as direct contact with natural phenomena and the seasons;

- encourages children to understand and respect nature and the environment, as well as the interdependence of people, animals, plants, and the life cycle;

- supports problem-solving skills and encourages creativity, imagination, and inventiveness;

- provides space for exploration, experimentation, discovery, and activities that develop physical capabilities.

- develops the brain and neural networks for students who prefer to learn through movement;

- provides a safe and free framework for students to develop their managerial and risk assessment skills;

- increases interest and enthusiasm through efficient resource use;

- increases children's joy, enthusiasm, and desire for discovery.

Recent perspectives

Outdoor recreation's contribution to health can be considered in the context of overall well-being. The World Health Organization (NANA,

2003) defines health as a complete state of physical, mental, and social well-being, rather than simply the absence of disease or infirmity. The concept of wellness, or optimal health, entails a balance of physical, emotional, spiritual, intellectual, and social health, and then lists a wide range of dimensions, beginning with fitness, nutrition, and stress management and progressing to meditation, education, and relationships. Outdoor education affects all aspects of students' health and can improve not only their physical but also their emotional well-being. (Godbey, 2009)

The emergence and rapid development of new technologies can be obvious distractions for children, even from infancy. The variety of television programs and applications designed for children and young people has both advantages and disadvantages. Regardless of how these facts are addressed, it is critical to understand that patterns of active or sedentary behavior begin to form very early in childhood and that habits of unhealthy technology use are passed down into preschool, school age, and then adolescence. Even more if we take into consideration the pandemic situation, which has made children and entire families isolated and unable to not engage in physical activity, that can certainly lead to obesity and other health issues. (Little, 2020)

From a medical standpoint, it has been discovered that sedentary lifestyles caused by spending too much time using modern technology are associated with decreased bone mass in children, a disease that can result in frequent bone fractures. Obesity can also be exacerbated by a sedentary lifestyle. Obesity is a growing concern in most countries around the world, despite widespread awareness of these facts. Physical activity is well known to reduce the risk of weight problems. Overweight people who are physically active have a lower risk of developing 21st-century diseases than people of normal weight who are not active.A preschool age child spends an average of over 85% of their time engaged in activities that force them to adopt a sedentary position. Because of this, modern playgrounds have been built in most neighborhoods. The problem with these constructions is that they are artificial and do not motivate the child to move enough. Instead, hills and forests or uneven terrain are real challenges, requiring children to use all their physical strength. Children who play in the forest or other green areas have much more developed motor skills than those who spend time on artificial playgrounds, being healthier and happier due to direct exposure to air and natural light. It has been found that learning that takes place in nature has faster and more sustainable results over time. (Watts, 2020)

There is mounting evidence that being close to nature is beneficial to one's health. As sedentary behavior tends to occur indoors, unventilated, with small, stuffy spaces, exposure to natural environments reduces pollution-related health problems. People who spend their time outside move more than those who spend their time indoors. Students in the twenty-first century spend the majority of their time indoors, and the only time they spend outside is on their way home from school, if they do not use public transportation. The school is the only institution that can be responsible for allocating outdoor time to students. Children and parents must

be aware of both the advantages and disadvantages of outdoor learning.A modern education of the future is constantly concerned with both the education and health of children, developing educational programs that combine learning with movement and spending time outside the classroom. (Davies & Hamilton, 2018)

Objective of the study

The main objective of the study is to present originative outdoor educational protocols for primary schools, in order to develop transversal and key competences.

Research methodology

Given the fact that the present brief research is based on the observation of the needs of educational institutions, the main research instrument was the observation sheet. It contained criteria based on which we have analyzed the needs regarding the development of competences of primary school pupils, in order to establish the outdoor activities that will be used during the research.

Originative outdoor educational protocols for primary schools

There are many protocols that can be used in order to achieve outdoor education in the pot-pandemic period. The first one presented in this study is storywalk. Storywalk is a unique and enjoyable way for pupils and students to enjoy reading and being outside at the same time. Laminated pages from a children's book are attached to wooden stakes and placed along an outdoor path. They are directed to the next page of the story as you walk the trail.A Storywalk is a fun, educational activity in which a story for children (literally an unfolded book) is placed along a popular walking route in the community or a forest.The ideal book contains little text, illustrations that do not cross the center of the page, and a compelling story. For this project, smaller cards work best. It employs nature-themed cards that can be used throughout the year.Students work in groups to read the given story page, find the next tab, and complete the challenges along the way. (Quai et al, 2020).

Image nb. 1. Storywalk protocols

The second outdoor protocol, that we suggest using in the post pandemic period as an innovation, which helps students enjoy outdoor learning and adapt better to the new school era, is nature weaving. Nature weaving is an art and handwork activity that is done after a walk in nature. Gather leaves, twigs, weeds, flowers, feathers, grass, and other natural materials for the project. Alternate weaving the gathered items over and under the string, in order to pique people's interest. This outdoor activity develops:

- hand-eye coordination and concentration are improved as a result of this activity.
- problem-solving abilities
- comprehending patterns and sequences, which are required for future literacy and numeracy development.
- language abilities such as color naming and language concepts such as "in," "out," "up," "down," and so on.

Image nb. 2. Nature weaving follow up activity

The third protocol that we consider as being innovative, is a *multidisciplinary workshop*, called nature elements, that is based on team work in nature. The following are the steps of the workshop:

1. The group is divided into 4 teams, according to the element of nature to which it belongs:

- Water (Cancer, Scorpio, Pisces)
- Air (Gemini, Libra, Aquarius)
- Earth (Taurus, Virgo, Capricorn)
- Fire (Aries, Leo, Sagittarius)

2. Students receive the assignments, found in 4 envelopes:

- Create a multi-sensory outdoor activity, (where you hang how more of the 5 senses: sight, hearing, smell, touch, taste) for the team opposite to the natural element (water-fire; earth-air), in which to use to your fullest potential the natural element you belong to and its features, its uses. In your endeavor, you will use any natural/artificial resource that can be integrated into the activity proposed. The activity can be intended for students of any age.

BONUS: In the activity, you will have to enter the item surprise discovered in the envelope.

3. Students present the results of the workshop.

4. The inter-evaluation of the activities is carried out.

The activity can be adapted to any age, any content or curricular objective or

Image no. 3. Outdoor sensorial workshop

Conclusions

Outdoor education is a modern learning strategy for new disciplines that can significantly develop students' transversal skills. It is also a way to achieve learning acquisition in an organized but enjoyable way in a free, uninhabited environment.

The benefits of outdoor education are recognized at multiple levels of the education system: physical, emotional, cognitive, and psychosocial. In this century of speed and content overload in schools, a teaching strategy is needed to facilitate the educational process. Outdoor education assists teachers through activities that take advantage of the unlimited resources of the natural environment through different formats and settings. (Bilton, 2010)

Outdoor education is the basis of teaching theory on which modern learning theory is built. These, developing and adapting to the needs of today's society, develop the critical and cross-sectional competencies necessary for the life of postmodern learners. Through personally engaging activities, they also develop life skills and facilitate access to course content.

Outdoor education serves as the interface between formal and non-formal education, improving the teaching process by expanding the teaching and learning environment into a unified functional whole for the full development of each individual.

In the post pandemic period, outdoor education is a great tool for teachers and parents to use in the daily educational activities, in order to motivate children to

participate in the solving of common tasks, also to cooperate more and socialize, also developing transversal competencies. (Spiteri, 2020, Quai et al, 2020, D 'Isanto& D'Elia, 2021)

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Nexus Between Economic Growth and Unemployment Rates: A Bibliometric Analysis of Various Methods and Mechanisms

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Dr. Sana Fatima[1], Dr. Prabhat Mittal[2] and Dr. Renu Jain[3]

1. Assistant Professor, Symbiosis Centre for Management Studies, NOIDA
2. Professor, Satyawati College (Eve.), University of Delhi
3. Corresponding author, Associate Professor, Deptt. of Commerce, Satyawati College, University of Delhi

Abstract: *In economics, the nexus between economic growth and unemployment rates could be called a "puzzle." In developed or developing countries, the major problem in many countries is long-term unemployment. In this research, a bibliometric analysis is made using a quantitative method to find the main patterns of the research line on this topic. We looked at two different time periods: 2003–2012 and 2013–2021. Most articles show that the nexus between growth and unemployment significantly depends on the actions of policymakers. During the period 2003-2012, "formal" methods were used most of the time. From 2013 to 2021, we saw that the "empirical" method was used more, while the "formal" method became less important. Instead, articles about the role of institution*s in the labor market and the bargaining structure got the highest score.

Keywords: "Economic growth," "Unemployment rates," "Bibliometric analysis."

Introduction

Over the past few decades, numerous advancements in research have been related to the nexus between economic growth and unemployment rates. Nonetheless, economists and scholars have not yet come to a common understanding of the relationship between these two factors. High unemployment rates are a long-term problem for many economies, particularly Europe (Srinivasan & Mitra, 2014). Because of the importance of this issue to the European labor market, it is imperative to investigate the connection between these two factors. Since the first oil crisis in 1973, many developed economies have seen a decline in economic growth and a rise in their unemployment rates after the post-war era. Gross domestic product (GDP) growth in the United States (US) and European countries have both been on the decline since the early 1970s, although the rise in the unemployment rate has been more pronounced in Europe (Ljungqvist & Sargent, 1998). In addition, Europe's recession was not as severe as in other regions. Therefore it cannot be the primary reason for the country's persistently high unemployment rate. So, the probable reason behind this is the fundamental differences between European institutions governing the labor market. This states that the nexus between economic growth and the high unemployment rate is not universal (Haruyama & Leith, 2010).

Okun's Law is a well-known tool for studying this nexus, and its coefficients are often calculated in the literature. The correlation between unemployment and the

cyclical component of GDP is known as Okun's Law (Dixon, Lim, and van Ours, 2016). Because of this, Okun's cross-country coefficients imply that the nexus between economic growth and unemployment differs among nations based on the peculiarities of their respective labor market institutions, demographics, and other factors.

The primary purpose of this review study is to evaluate progress made in the field since the release of Aricó's (2003) ground-breaking assessment. Until the paper's publication, the author presented the most pertinent literature on unemployment's persistence in a growing economy and provided a preliminary categorization of the contributions. For their bibliometric study, Neto and Silva (2013) considered 84 publications published between 2000 and 2012. Beyond the impacts, Aricó (2003) identified, they found a substantial increase of “new effects” in the literature about this relationship. The authors urged the development of a novel theoretical framework to account for these emerging consequences and empirical findings. By analyzing almost a thousand articles, this study tries to bridge the existing literature with the most current developments since 2003.

In Section 2, the researcher examined some of the early attempts to investigate the persistence of unemployment in a thriving economy and some more recent contributions to the topic. In Section 3, all the research methods used in this review paper have been discussed. Section 4 discusses the evolution of articles related to the nexus between economic growth and unemployment rates. Section 5 reports the most important results from the Scopus database bibliometric analysis. Finally, Section 6 concludes with some final thoughts and highlights the primary findings of this study.

Literature review

Kuznets (1973) argues that economic growth can be characterized as a sustained improvement in a country's ability to provide a broader range of economic commodities to its population. Research on the relationship between economic growth and unemployment, as outlined by Aricó (2003), can be traced back to the works of Harrod (1939) and Domar (1947) in the middle of the 20th century. Although significant, these were not part of a larger collection of research because they did not spark a new discussion in the literature.

Pissarides's (1990) “job-search model” incorporates a standard screening function with a neoclassical growth theory and formally establishes the first link between economic growth and unemployment taking profits and hiring costs into account. According to the author, a higher economic growth rate results in a lower employment rate in a non-frictionless labor market. In this situation, firms increase their workforce, increasing job opportunities because they anticipate higher recruitment costs. Companies benefit from growing earnings since higher growth rates also boost future profits. Aghion and Howitt (1994) called this process of the increasing growth rate through increased employment a "capitalization effect.” This group of researchers introduced a search

model of equilibrium unemployment that pays special attention to the redistributive facet of economic growth. Unemployment is caused, according to their model, when companies relocate their workforce.

The "creative destruction effect" has been identified by Aghion and Howitt (1994). The equilibrium rate of unemployment rises as the economic growth rate increases because the job-matching period shortens. This can happen either directly, as in the case of a spike in the job-destruction rate (unlike Pissarides's (1990) model), or indirectly, as a result of its negative impacts on employers' incentives to open new vacancies and, by extension, the job-finding rate.

Economic growth was treated as an exogenous factor in the two preceding models. Also, there was a direct link between economic growth and increased unemployment. Both economic growth and unemployment are treated as endogenous variables in the framework proposed by Bean and Pissarides (1993).

In the model of Pissarides (1990) and Aghion and Howitt (1994), rising unemployment lowers economic development because it reduces the "pool of savings" (the total amount of savings in the economy) that can be invested. Since the labor supply issue had not been addressed prior to Acemoglu's (1997) introduction of the "coordination failure effect," he has made a significant addition to the debate on the growth-unemployment nexus.

Acemoglu (1997) proposes two alternative equilibrium states depending on the entrepreneur's expectations. The first is analogous to the scenario when all businesses opt out of innovation, which results in a rise in the unemployment rate. In the latter, businesses embrace the new technology, resulting in a decline in the national unemployment rate. The "coordination failure effect" is counteracted by the "social planner" who directs the incentives of businesses for economic growth.

However, incorporating Okun's law into the model makes it more responsive to policy changes, resulting in less expansionary optimal fiscal and monetary policy. Additional fiscal policy may contribute to fewer benefits in economic growth when the unemployment rate is close to or below its natural rate, in contrast to a model that does not consider unemployment. (Crowley and Hudgins, 2021).

Following this, the researcher discusses some of the theoretical and methodological findings of Scopus-based bibliometric analysis. The goal is to determine where the literature that has developed since the survey conducted by Aricó (2003) uncovered the early primary contributions. Given the explosion of literature on the topic of growth and unemployment over the past two decades, it seems sensible to study the most important trends in this area and focus on the most significant contributions.

Methodology

To better understand the research done on the nexus between economic growth and unemployment rates, a bibliometric study was carried out. Article information for this bibliometric analysis was gathered

Comparing it to other databases like Google Scholar, World of Science, and CSA Illumina, this one stands out as the clear winner when assessing the significance of social science research (Norris and Oppenheim, 2007).

In the "keywords," "article title," and "abstract" fields on November 11th, 2021, the terms "economic growth" and "unemployment" were utilized to conduct this study. Only articles published between 2003 and 2021 were included in the search, and only the categories "Economics, Econometrics, and Finance" and "Business, Management, and Accounting" were selected as subject areas. Accordingly, 913 articles were downloaded.

More than 400 publications failed the first screening because their abstracts did not explicitly or implicitly address the "economic growth-unemployment" relationship. The full-text study of other publications was necessary to determine their applicability to the discussion. While eight publications passed the first relevance criteria, they were excluded from this analysis since requesting access was unsuccessful.

Methods and mechanisms were then used to classify the remaining articles. Six types of studies were taken into account ("formal," "empirical," "appreciative," "formal + empirical," "appreciative + empirical," and "survey") in accordance with Nelson and Winter (1982) and Nagarajan et al. (2017). The publications the researcher labeled "formal" either rely heavily on statistical models or are grounded in a rigorous analytic or logical structure. Further, articles were tagged as "formal + empirical" if they included data testing within the built model. The term "empirical" was coined to describe a category of publications that heavily or exclusively employ econometric or statistical examination of data. An article was categorized as "appreciative" if it offered an argumentative analysis, critique, judgment, appreciation, or assessment without using mathematical modeling. Similarly, the "appreciative + empirical" referred to the articles that included an appreciation or comment with testing results. Lastly, a "survey" is a collection of publications that have been through a documented exhaustive evaluation of both published and unpublished research from secondary sources data.

To classify the effects reported in the literature, the researcher divided them into two groups: "Initial effects," which included publications that documented one of the four main effects found by Aricó (2003), and "New effects," which included all other effects such as "Policymaker effects"; "labor market institutions and bargaining structure"; "entrepreneurial activity effects"; "structural shift, productivity growth, education and training"; "technological skills and agglomeration economies"; "financial market effects"; "migration and brain drain"; "internal and external factors"; "and inequalities." Finally, 17 papers were removed from the analysis since they did not formally show a transmission mechanism between economic growth and unemployment, providing us with 356 articles. The researcher utilized the VOSviewer software to compile a bibliographic review of the literature.

In the next section, the researcher will use VOSviewer to conduct several types of analysis, including a look at the most commonly used keywords, a network of authors, and a study of citations and co-citations. The results of this bibliometric literature analysis related to the nexus between economic growth and unemployment rates are presented below.

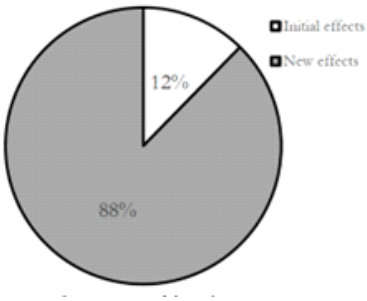
Evolution of articles on the nexus between economic growth and unemployment rates

Figure 1 below evaluates the relative importance of "Initial effects" and "New effects," considering all relevant studies. The first group was designed to incorporate works dealing with Okun's Law and the four primary links indicated in Aricó's (2003) paper ("Creative destruction effect," "capitalization effect," "pool of savings effect," and "coordination effect"). Reviewing the 356 publications, however, revealed that neither the "pool of savings effect" nor the "coordination effect" is mentioned once.

These results, consistent with that of Neto and Silva (2013) for the years 2000-2012, show that these two effects may have been obsolete or misinterpreted over the last two decades. As a result, the "Initial effects" part comprises only works pertaining to the remaining three references.

Articles that describe at least one effect that is unique from those already mentioned can be found under the "New effects." 88% of the total number of articles obtained fall into this category, indicating that economists have been considering a wider range of variables in their attempts to study this relationship.

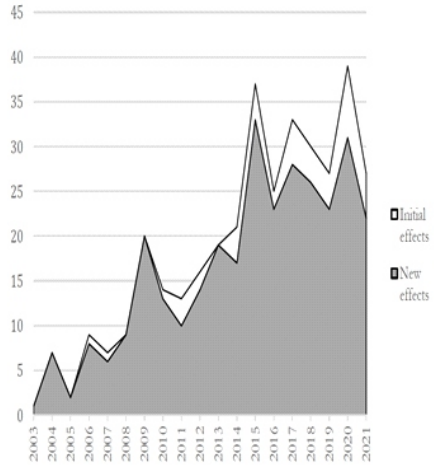
Figure 1: Distribution of articles on the nexus between economic growth and unemployment rates (2003-2021) by mechanism



Source: Researcher's evaluation

Amid "new effects," growth-unemployment studies have surfaced over the past two decades, reaching a zenith in 2020 with 39 papers. Since 2012, there have been roughly 29 articles published annually on the topic. In addition, the study of Okun's Law appears to have refocused some economists' attention on the "Initial effects" category (44 publications) (Figure 2). Compared to the "New effects," this remains a relatively small number (312 articles).

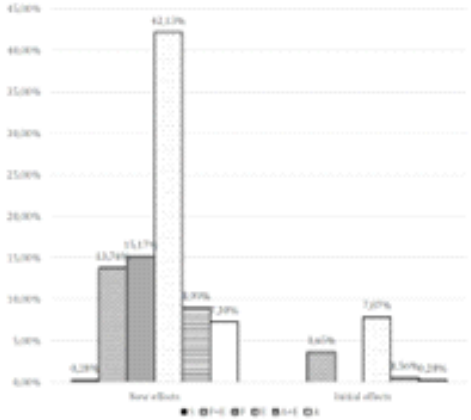
Figure 2: Evolution of articles on the economic growth-unemployment nexus (2003-2021) by mechanism



Source: Researcher's evaluation

Figure 3 displays the number of articles published by contrasting the "New effects" and the "Initial effects."

Figure 3: Distribution of articles on the nexus between economic growth and unemployment rates (2003-2021) by methodology



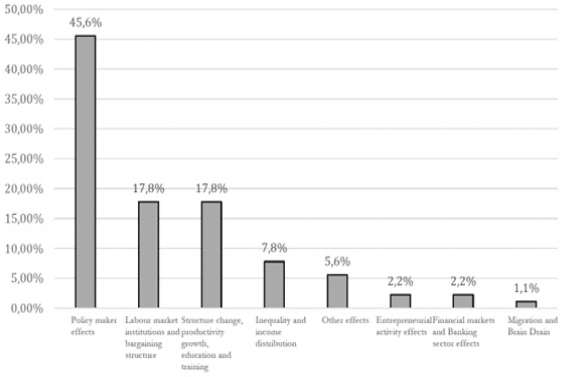
Source: Researcher's evaluation

The "Empirical" subcategory contains about half of all publications in this field that are relevant to the discussion at hand. Similarly, the "Formal + Empirical" category comprises both the "New effects" and "Initial effects," indicating its significance in the growth-unemployment nexus-related research. While 15% of "New effects" publications fall into the "Formal" category, not a single "Initial effects" work relies completely on this approach. Compared to the final three categories, "Formal + Empirical" and "Formal" only carry a weight limit of about 9.5% and 7%. Only one article was categorized as a "Survey" on the "New effects."

Given the rapid increase in the publication after 2012, the timeline is split in half to reflect this trend. The financial crisis of 2008, which wreaked havoc on many economies, is also linked to this schism. For this reason, it is logical to suppose that the growth-unemployment literature increased in the years following the financial crisis (Dixon, Lim, and van Ours, 2016; Novák and Darmo, 2019). The first time frame will include all papers published between 2003 and 2012, while the second time frame will include 2013 through 2021.

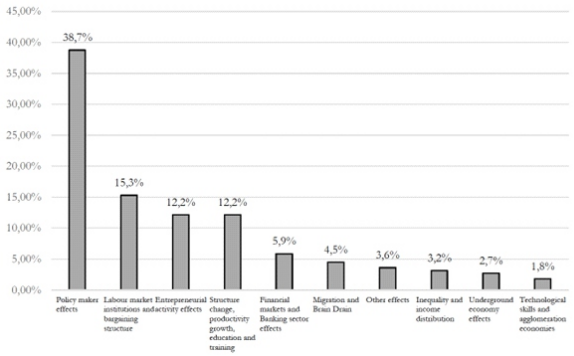
For the first period, which includes 90 papers, the main "New effects" subcategories are displayed in Figure 4. Evidence suggests that effects induced by policymakers predominate. In contrast, those related to "financial markets and banking sector," "entrepreneurial activity," "technological skills and agglomeration economies," and "migration and brain drain" are less prominent. On the other hand, the "innovation process" and the "labor market institutions" are major topics in these journals. An essential point to make is that the "underground economy effects" subcategory has no examples from this time frame.

Figure 4: Distribution of articles on the economic growth-unemployment rates nexus (2003-2012) regarding "New effects" by subcategory



When comparing the first and second periods, the "policy maker effects" subcategory maintains its importance in the second period. However, economists appear to be paying more attention to studies regarding the consequences provoked by “entrepreneurial activity,” with 27 papers published on the topic throughout the time considered. “Migration and brain drain,” “financial markets and banking sector effects,” and “technology skills and agglomeration economies” have all grown in both relative and absolute "weight" in the associated literature. In contrast, papers on “inequality and income distribution” have declined. (Figure 5).

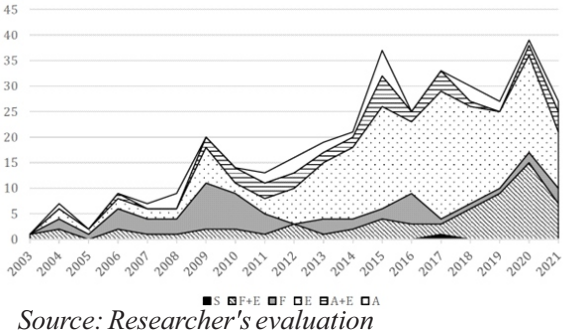
Figure 5: Distribution of articles on the economic growth-unemployment rates nexus (2013-2021) regarding “New effects” by subcategory



Source: Researcher's evaluation

Figure 6 shows that before 2012, the "formal" category of publications about the approach utilized was more common. After 2017, both the "Empirical" and "formal + empirical" categories see significant growth. This might be interpreted as a recognition by researchers of the need for adequate theoretical modeling to supplement the huge body of empirical research that has evolved over the past decade.

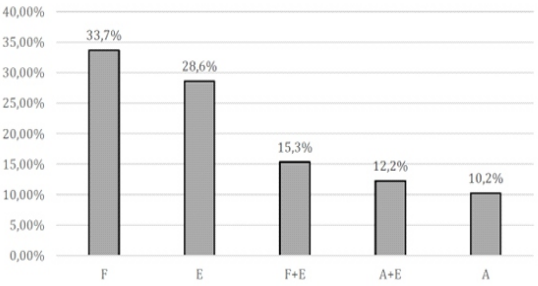
Figure 6: Evolution of articles on the economic growth-unemployment nexus related to “New effects” (2003-2021) by methodology.



Source: Researcher's evaluation

More than a third of all articles on the subject between 2003 and 2012 fell into the "formal" category, while nearly a third fell into the "empirical" category. Although the "formal + empirical" group accounts for more than 15% of the total, the other three categories also play significant roles in the relevant literature (Figure 7).

Figure 7: Distribution of articles on the economic growth-unemployment rates nexus (2003-2012) regarding “New effects” by methodology

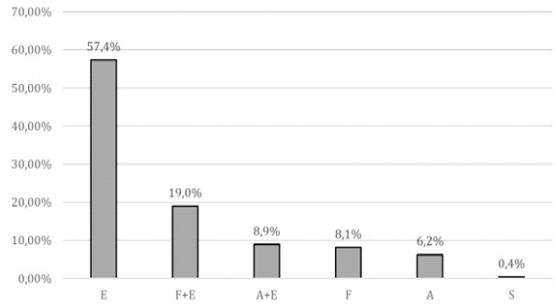


Source: Researcher's evaluation

Figure 8 presents some findings with regard to the "methodology" category when the years 2013-2021 are considered. The "formal" category now carries only 8.1% of the total. Compared to the earlier period, fewer authors opted for argumentative or hybrid approaches that combined

theoretical frameworks with empirical investigation. More than half of the publications eventually published used an empirical methodology, making it the most popular choice. This bridges the research gap caused by the theoretical approach. Finally, the combination of the "formal + empirical" approach ranks second, with 20% of studies.

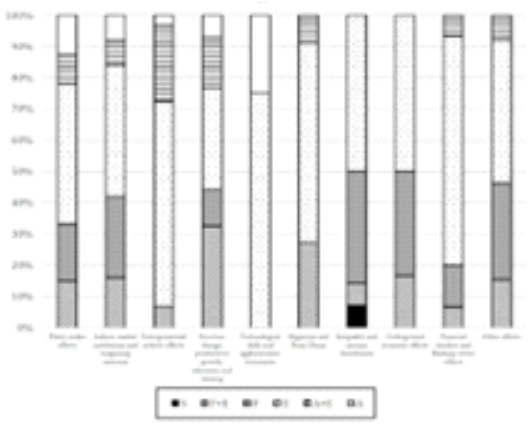
Figure 8: Distribution of articles on the economic growth-unemployment rates nexus (2013-2021) regarding "New effects" by methodology



Source: Researcher's evaluation

Finally, Figure 9 shows the full-time span of 2003-2021 for each subcategory of the "New effects," combining the "mechanism" and "methodology" categories. According to the primary data, the "empirical" group is larger than any of the other "New effects" groups in every single category. The "underground economy effects" indicate a shift toward an empirical strategy. A large number of publications in subcategories, including "inequality and income distribution" and "labor market institutions and bargaining structure," are also being given a "formal" treatment. Subcategories such as "entrepreneurial activity effects," "structure change, productivity growth, education and training," "technological skills and agglomeration economies," and "migration and brain drain" appear to benefit greatly from a "formal + empirical" approach. Finally, the "appreciative" and "appreciative + empirical" categories are underrepresented in nearly all of the "New effects," which is consistent with earlier findings.

Figure 9: Distribution of articles on the economic growth-unemployment rates nexus (2003-2021) regarding "New effects" by mechanism and methodology

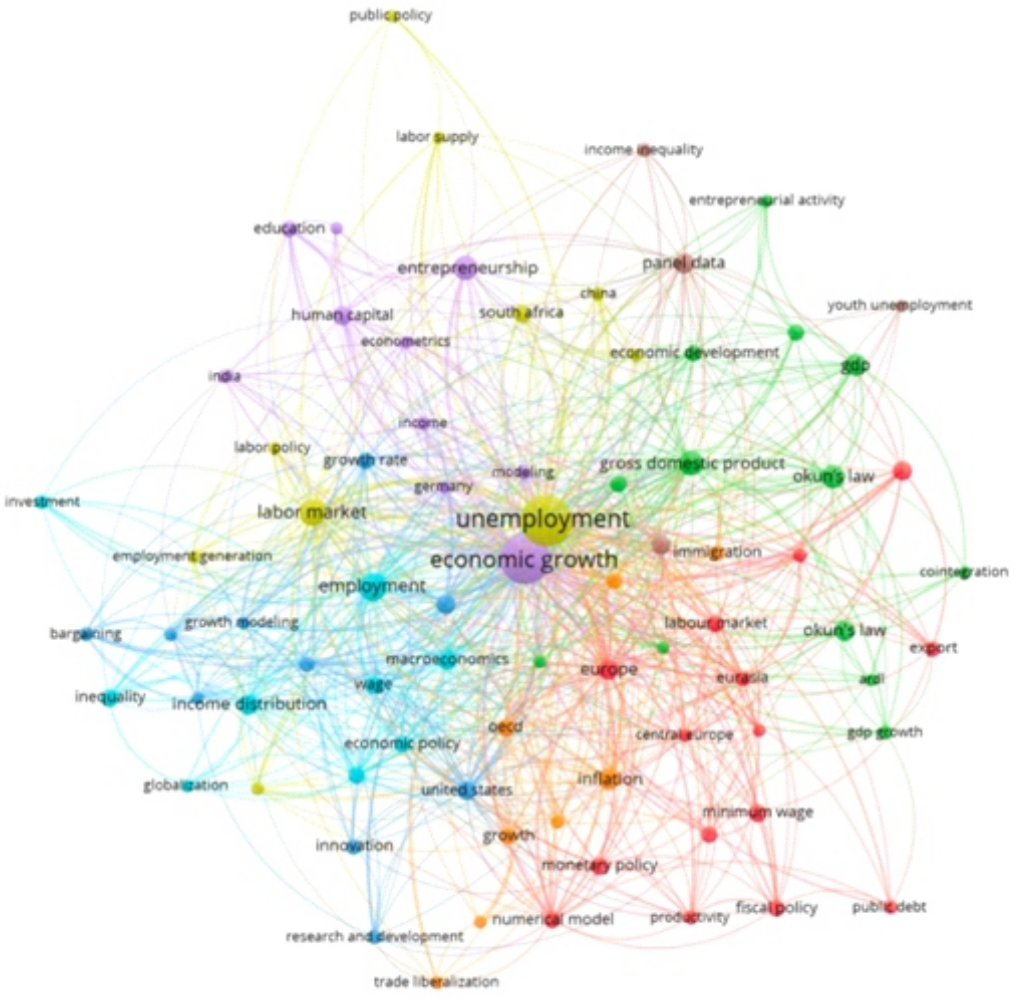


Source: Researcher's evaluation

Bibliometric analysis

Figure 10 is a network diagram depicting the relationships between various keywords. In this bibliometric analysis, 356 publications were chosen using a total of 1035 keywords. If the minimum keyword occurrence count in VOSviewer is set to 4, it will recognize 79 keywords. The network visualization option displays eight distinct color groups, illustrating the connections between keywords. According to this diagram, the growth-unemployment nexus literature is only moderately homogeneous, with authors using a variety of approaches to the same problem.

Figure 10: Co-occurrences of keywords



Consequently, "economic growth" (176 occurrences) and "unemployment" (185 occurrences) are the two most often used keywords, followed by "employment" (33 occurrences), "labor market" (31 occurrences), and "entrepreneurship" (23) (Table 1).

Table 1: Occurrences of keywords

Keywords	Occurences	Total link strength
Unemployment	185	557
Economic growth	176	541
Employment	33	121
Labor market	31	152
Entrepreneurship	23	52
Gross Domestic Product	21	94
Okun's Law	18	56
GDP	15	42
Inflation	15	48
Income distribution	14	54

Source: Researcher's evaluation

The most frequently cited authors and the total number of works in the field are listed in Table 2. Table 2 includes the total number of citations for each author in our domain of 356 articles. One striking feature is the authors' low output in published works. While many have explored writing on the nexus between economic growth and unemployment rates, the vast majority have only one publication to their name. It was found that only 6 authors have written more than 2 articles, and none of them is in the top 15.

Table 2: Top cited authors

Author	Number of Articles	Citations
Dosi, G.	1	289
Fabiolo, G.	1	289
Roventini, A.	1	289
Tregenna, F.	1	102
Cai, F.	1	100
Wang, M.	1	100
Himanshu	1	97
Stockhammer, E.	2	87
Onaran, Ö.	1	86
Kus, B.	1	77
Knight, J.	2	74
Kingdon, G.	1	74
Boubtane, E.	2	58
Coulibaly, D.	2	58
Rault, C.	2	58

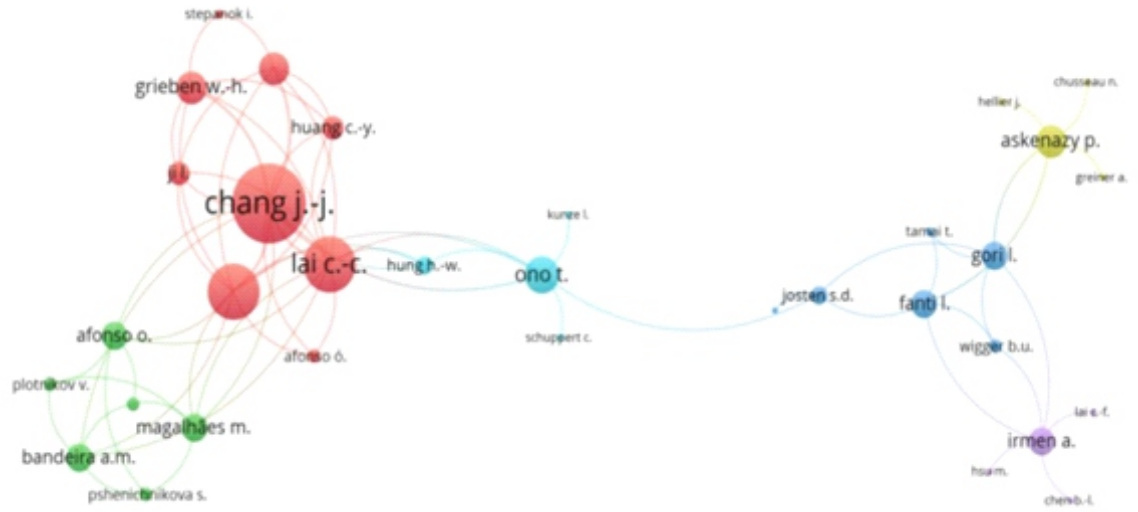
Source: Researcher's evaluation

Next, the researcher examines the scholarly collaboration measured by the co-authorships network (Donthu, Kumar, and Pattnaik, 2020). From a total of 712 authors identified in the relevant literature, 138 were selected using VOSviewer on the basis of meeting the evaluation components: having at least one paper published and a minimum of 10 citations. The number of articles a group of authors has contributed to determines how large each cluster appears on the map.

The map (Figure 11) shows minimal contact between the various groups of authors. It appears that authors in the relevant literature generally research in silos and don't connect with one another. But in exceptional cases, they'll take in an "outsider" to collaborate with the existing team.

the impact of unionization on economic growth and unemployment. Jan C. van Ours came in second with 40 global and 13 local citations. The researcher has two works by this author in the collection, examining the nexus between economic growth and high unemployment. In third place, both Ching-chong Lai and Ming-fu Shaw, who both co-authored with Juin-jen Chang, have received 12 local citations.

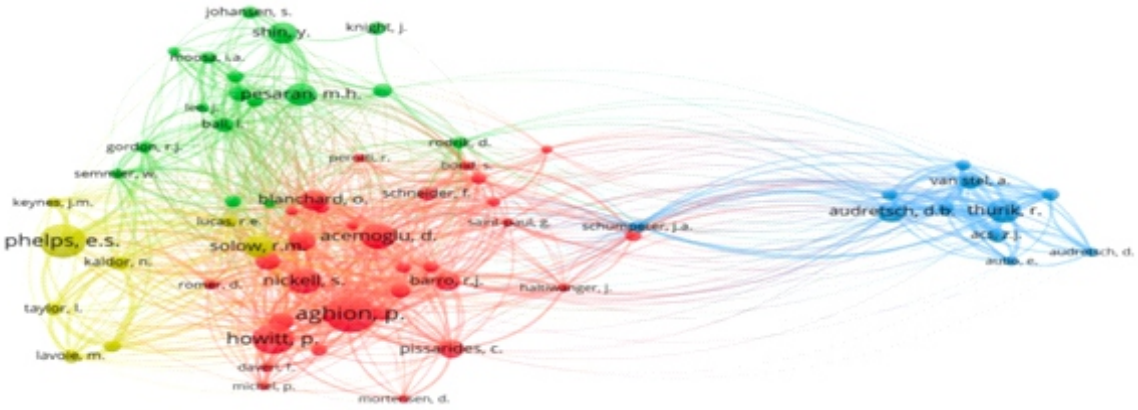
Figure 12: Author citation network



Source: Researcher's evaluation

The co-citation analysis, which enables the identification of networks of authors and articles pertaining to the same style, paradigms, or theory, provides more intriguing insights into the empirical and theoretical underpinning of this research (Acedo et al., 2006). The researcher may utilize these co-citation patterns to draw a picture of the interconnections between these foundational ideas that underpin the most current research.

Figure 13: Author co-citation network



Source: Researcher's evaluation

Figure 11: Co-authorship network

Source: Researcher's evaluation

Ortega (2014) argues that studying scientific collaboration through examining authorship networks is the most effective method. However, opinions on how collaboration affects the quality of research vary widely. Compared to other fields like Physics, Geosciences, and Engineering, the researcher discovered that co-authorship networks in the “Economics & Business” research field are typically quite small and sparse. An abundance of centrality in the field of “Economics & Business” demonstrates the dominance of a single author over the work of all other researchers working in the same field. These results were in agreement with our findings shown in Figure 11. Another study by Ortega (2014) demonstrates that authors in the field of “Economics & Business” receive more citations per document than those in any other academic field. Thus, there is a negative correlation between citations per paper and clustering degree but a positive correlation between citations per paper and betweenness centrality. Therefore, academics in “Economics & Business,” who tend to have scarce and narrow networks, isolated co-authors, and a high level of control over their network, tend to have more research effect (Ortega, 2014).

The citation connectivity between authors is another sign of this low level of interaction. Again using VOSviewer, 33 referenced authors and 6 clusters (out of a total of 712) were identified. (Figure 12). Data on how often each of the 712 authors is referenced by other authors in their field is provided (local citations). The most important authors in this field are shown in Figure 12 below.

Using VOSviewer, the researcher found that Juin-jen Chang has received the most local citations from other authors in the field of related literature. After compiling all of the citations from throughout the world, the author had 38 citations in Scopus. However, within the scope of this bibliometric review (356 publications by 712 authors), the author has been cited 17 times. Chang is a member of the "Labour market institutions and bargaining structure" group and a co-author of three of the articles the researcher analyzed, all of which examine

Regarding the mapping pattern, the software discovered 12703 cited authors, of which 68 exceeded the requirement of having at least 20 citations in the most recent literature. The map confirms that many of the academics cited in Aricó (2003)'s work remain among the most influential thinkers in the field (Figure 13). Nearly a quarter of the relevant literature cites one of Philippe Aghion's works, making him the most referenced author.

Conclusion

In this study, the researcher conducted a quantitative bibliometric analysis to identify the most prevalent trends in the literature related to the nexus between economic growth and unemployment rates. After searching the Scopus database, 356 papers were chosen between 2003–2021. Each paper was organized according to a set of categories that described the mechanisms and methods with which it dealt. The investigation revealed that novel mechanisms contribute to the growth-unemployment nexus field of study. Therefore, an "initial effects" versus "new effects" strategy was adopted, with the former mentioned in the survey by Aricó (2003) and the latter taking into account Okun's law.

Further, over 90% of articles from 2003 to 2021 reported on at least one "new effect." The research was then split into two-time intervals, with 2012 serving as a baseline for both. This may be because of the 2008 financial crisis, which prompted more scholars to investigate the relationship between the two factors. In the second time period between 2013 and 2021, the empirically oriented became strong. The "empirical" category contains 57.4% of the articles related to this relationship.

The "theoretical + argumentative" analysis with an "empirical" analysis also increased their weight in the overall number of related articles compared to the period between 2003 and 2012. In the case of the "formal" category, there was a significant shift from 34% in the first period to 8.1% in the second period. The "policy maker effects" category ranks highest for both periods when the articles are sorted by how they affect policymakers. But between 2013 and 2021, two new groups surfaced: "underground economy effects" and "technological skills and agglomeration economies." There was also a significant increase in the number of papers related to "entrepreneurial activity consequences," from two in the first period to twenty-seven in the second. The researcher used the VOSviewer software to produce a thorough bibliographic survey of the relevant literature. The results in both the citation and co-citation networks demonstrate limited interaction between groups of authors. Defining a new theoretical framework that can account for some of these new effects observed in the current literature may be helpful in future studies.

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Game Theory Model Application In Social Networking Sites: A Comparative Analysis Of Facebook And Instagram

Mr. Raj Kumar
Assistant Professor,
Guru Kashi University

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bstract: *Decision making is a helpful tool which can be used to optimize strategies of the companies for their competitors. The Research work application is based on the social networking sites namely Facebook and Instagram. A game theory practice is used by competitors and their interaction between competitors. The main purpose was to identify the common features among two competitors for the interaction criterion. Interactive strategies were considered. Simple random sampling has been applied. Cronbach's alpha test is used to check the reliability of the questionnaire. The regression analysis tool used to analyze. Data is collected as payoff values. The result found that the effect of decision making for the optimum strategies and their values reflect under the game theory model.*

Key words: *Game theory model, decision making process, Optimum strategies, Value of the game.*

INTRODUCTION

Business situations are always engaged in employee competition. Every decision has a direct impact on the revenue of business organizations. Nowadays social networks play an important role for sharing knowledge and experience, for example: Facebook, Instagram, Twitter, Blogs etc. This is the pattern where people communicate and respond to the social, economical and political behavior of others. The social network sites use methods to explain the structures, analysis of the structure of the social entities.

Edison Research (2020) described that Instagram has more followers than Facebook in total usage nowadays. This report explicates major competitors of social media. The main objective was to apply a game theory on the basis of models and common responses of Facebook and Instagram. The comparative analysis has been done to analyze the most prominent features of the site. The result showed the value of the game and the win-win situation for both the competitors.

COMMON FEATURES OF FACEBOOK AND INSTAGRAM

- Privacy
- Stories
- Public/private account
- Group created
- Chat option
- Live Videos
- Likes, dislikes and comment

These features are based on the feedback and certain assumptions of the game theory and day to day interaction between Facebook and Instagram. On the basis of game theory, Facebook and Instagram are called as two players. These common features work as the strategies. The payoff values are required to build a game theory model.

REVIEW OF LITERATURE

Karami., H. et.al (2021) Stated the application of a socialist cooperative game for propensity to cooperate and improve agriculture's cumulative net benefit and stimulate the balanced use of groundwater in "An optimal

The main objective was to prevent groundwater level draw down and compensate for part of the groundwater-reservoir deficit in Iran. The main factor in groundwater resources management has been found. Cooperative game theory method was used in the form of an eco-socialism model. Results found that net benefit from agricultural activities will also increase by 26%.

Chenc,. Z. et.al (2021) proposed this method has been extensively used in the research works about different kinds of power usage fields, especially the smooth power utilizations that can facilitate the sustainable power improvement is the evolutionary game concept in "A comprehensive evaluation of studies works based totally on evolutionary recreation concept for sustainable strength development". It promoted the sustainable developments of power utilization technology, normal existing problems and several trendy hints about EGT- based studies. The evolutionary game concept approach is primarily based on practical examples and with evolutionary game models including more participants, and research and development (R&D) works primarily based on hybrid algorithms.

Napoleon Cat (2019), explained in "interact and assist customers on social media "about the contemporary users of Facebook and Instagram. Result determined that in India, 18.6% of its complete population are Facebook customers, whereas 4.8% of Indian population is Instagram customers.

Kwatra,.N. (2018) proven gratifications theory and its importance and usages in social media. It provided a higher expertise for customers' of social media. It also displays a higher knowledge of the causes and outcomes of the adoption and usage of social media.

Gutor., T. et.al (2017), " defined in "game theory model for the improvement of best approach towards innovative merchandise production at the company" about the innovative method for product manufacturing on the enterprise considering the charges because of the manufacturing, storage and transportation of basic goods; extra charges for the development of revolutionary merchandise and supplementary costs granted by way of the business enterprise for the innovative merchandise improvement in order to decrease feasible material losses by way of the described motives by using designed recreation concept model. End result discovered that organization's managers determine the useful and non-beneficial marketplace nation for certain styles of innovative merchandise and to improve the choice making method concerning the growth or the reduction of innovative products production.

RESEARCH METHODOLOGY

This technique section consists of the subsequent steps.

An exploratory research design has been used that is based on customer survey, Questionnaire technique has been used for research work, and Google form turned into designed to have the demography details of the respondents. Linear scale turned into used to acquire the records from the respondents.

• A simple random sample technique was used to gather the information. A sample size of 100 was used on a heterogeneous group

of respondents.

The approximation for round off value to be taken for this research work turned into finalized as one hundred samples. The scholars of our college were provided the questionnaire using Google shape to collect the applicable facts. Cronbach's alpha reliability test has been used to check the reliability of the questionnaire. Cronbach's alpha values are primarily based on the responses for selected features for facebook, Instagram and also for both of them.

Table I Reliability check for Pilot survey

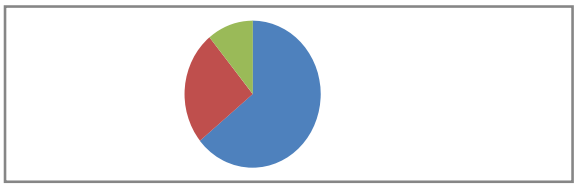
Sr. No	Index	No. of Items	Initial Sample Size	C.alpha value	Indication
1	Facebook	7	20	0.917	Excellent
2	Instagram	7	20	0.924	Excellent
3	Facebook & Instagram	14	20	0.903	Excellent

Considering that all the three Cronbach's alpha values are greater than 0.90, the questionnaire is an excellent one for carrying this research work. The model is reliable to conduct the survey for the remaining samples.

DATA ANALYSIS AND INTERPRETATION

- The average value and fashionable deviation were calculated, as to perceive the comparative figures and the consistency of the capabilities of descriptive facts has been used.
- Simple regression analysis is used in ways: Y on X and X on Y. The output of regression analysis in elements for example: Intercept determined by way of default cost of Y while X=0. This is the focus for accumulating the payoff values. The subsequent element is theslope determining the positive or poor effect of the impartial variable on the dependent variable.
- Game concept model used to intercept records collected from the above procedures of Y on X and X on Y, payoff matrix of 7x7 in form inserted.
- Participant A as important and player B as minor , all the first entries axi amongst (axi, ayj) are answer of game theory to discover the cost of the game and strategies
- Participant B as principal and participant B as minor, all of the 2d entries ayj among (axi, ayj) are taken into consideration to discover the fee of the game and greatest techniques of the sport. The transpose of the authentic matrix values for ayj are taken to clear up for the player B. The final outcomes for both the players of the game concept.

Fig:1 Sample Distribution based on Occupation



Nearly 50% of the sample is shared through college students and teachers. Remaining is blanketed inside the subsequent 50%. The sort of the demographic facts primarily based on occupation, reflects the heterogeneity.

Trends of responses at the seven functions for the 2 players

The Chat Interface of Facebook is higher in comparison to Instagram. On the other hand, stay films on Instagram are more appreciated by the end users in comparison to the

live movies of facebook. Private or public accounts on Facebook share more contributions as compared to Instagram accounts.

Stories in addition to likes and feedback from each facebook and Instagram are appreciated by the end consumer. The features of groups created on each website are not as in line with the satisfaction level.

The security function stands maximum in case of each social networking website. Descriptive facts, the measure of valuable tendency and the dispersion within the facts help to find out the overall fashion. The ratio of trendy deviation and the average cost indicates the consistency of the belief of the respondents in the direction of facebook and Instagram. Following table offers the consistency ranges for each of the functions among each of the gamers.

Table- II: Participant wise Descriptive statistics for numerous features players capabilities average Std. Dev. Coeff. of variation (%) consistent by way of ranking facebook .

Chat Interface	Live Videos	Public or Privat	Stories	Like and Comments	Group Create	Privacy	Instagram Chat	Live Video	Public or Private
6.02	5.5	6.57	6.41	6.57	d4.83	6.9		6.25	7.38
2.61	2.85	2.83	2.56	2.72	2.66	2.75	5.622.57	2.78	2.78
43.34 5	51.78	43.12	39.93	41.35 3	55.14 7	39.92	45.79 5	44.53	37.68
	6	4	2			1		4	1

Game Theory Model application

Table- II: Player wise Descriptive statistics for various features Players Features Average Std. Dev. Coeff. of Variation (%) Consistent by Ranking Facebook

Players Features Average Std. Dev.	Consistent by Ranking Stories	Like & Comments	Group Created	Privacy
Coeff.of Variation (%)	6.38 2.98 46.67 6	6.68 2.84 42.44 3	4.81 3.15 65.46 7	7.15 2.90 40.61 2

Interpretation

Privateness of facebook is maximum steady whereas stories are subsequently consistent amongst all its features. On the other hand, a personal or public account of Instagram is most constant whereas security is next amongst all its features. Group created found to be least consistent a few of the two gamers. Safety in both cases is the constant function which plays an important role in the area of social networking websites. Game concept model after carrying the regression analysis, the intercept payoff matrix for both the players is given below.

Consequently it is a 7x7 game concept model on a non-cooperative basis as these players do not share their internal rules; the not unusual features are the interaction factors between these two players.

Table- III: Formation of 7x7 Game theory model Interpretation

All of the values of the intercepts are effective. Maximum of the values revolve five to 7 indicating correct bonding of cell values. However values among 1 to three, suggest week bonding of cell values. Solution of game concept model Matrix game solver provides the online facility for fixing matrix game as a matrix where:

- Player I choose a row and simultaneously
- Player II chooses a column.

The matrix entry of the jointly selected row and column represents as usual the winnings of the row chooser and the loss of the column chooser.

Case 1: Keeping player A as major (row chooser) and player B as minor (column chooser), the game can be solved as - The matrix is

5.52	4.79	5.29	5.51	6.26	5.74
4.23	3.97	3.86	5.25	5.48	5.12
5.50	4.84	3.67	6.14	5.84	5.73
5.80	5.87	5.57	5.42	5.67	5.95
5.09	4.87	5.66	5.13	4.31	5.54
3.57	2.57	2.89	2.89	2.74	2.63
6.23	6.52	5.50	6.93	7.26	7.19

The solution is: The value is 5.59. An optimal strategy for Player A (Facebook) is:

(0, 0, 0, 0.02935, 0.55025, 0, 0.4204) An optimal strategy for Player B (Instagram) is:

(0.07944, 0, 0.90232, 0, 0.01824, 0, 0)

Case 2: Keeping player B as major (row chooser) and player A as minor(column chooser), the game can be solved as-The matrix is

5.10	4.61	4.59	4.91	4.07	4.61	4.90
4.91	4.97	4.49	5.60	4.38	4.34	5.82
6.70	6.22	4.90	6.53	6.53	5.99	6.05
5.75	6.15	5.90	5.03	4.60	4.54	6.42
6.93	6.66	5.96	5.81	4.26	4.97	7.08
4.31	4.28	3.39	3.87	2.91	1.72	5.36
6.51	7.67	6.79	6.83	6.71	7.19	4.93

The solution is:

The value is 5.93. An optimal strategy for Player B(Instagram) is:

(0, 0, 0.32607, 0, 0.29481, 0, 0.37912)

An optimal strategy for Player A(Facebook) is: (0, 0, 0.23636, 0, 0.31427, 0, 0.44937)

Interpretation of answers of games: The price of the game in both cases lies among 5 to 6, which is right enough for each of the players. In each case the most effective techniques are three for both gamers.

Case 1 Facebook dominant Instagram functions like stories, likes and feedback and safety offer best strategies Likes and feedback, sharing the main contribution. However functions like Chat Interface, public and private accounts and likes, dislikes and comments are the greatest use of strategies for Instagram towards face book. The contribution is shared through non-public and public functions.

Case 2 Instagram dominates facebook, features like public and private accounts, stories and privacy utilization are the most excellent strategies. Eventually these features are the main strategies for facebook. In each case privacy features share maximum contribution.

Interpretation of Solutions of games: The value of the game in both cases lies between 5 to 6, which is good enough for both the players. In both cases optimum strategies are three for both players.

Conclusion

Game theory is used as a decision making tool even in complicated situations. The privacy function for face book whereas public and private account function for Instagram were most prominent features as compared to other features. Data

analytical tools are sufficient to provide a feasible solution. They can offer more privacy to the quit users.

The effective intercepts are used because of the payoff values for creation of a 7x7 non-cooperative game through each of the gamers through regression analysis.

Average value gives the win-win situation and is right enough for each competition. The common functions of those two social networking websites show satisfactory results through the quit customers. it can be observed that features of Instagram share highest among all the strategies even under the dominance of facebook. On the other hand Instagram dominating Facebook reflects the same features as their optimum techniques.

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Digital Competencies of Teachers – Strategies of Training and Attitudes During the Pandemic of COVID

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Tiberiu Dughi[1], Dana Dughi[2], Henrietta Torkos[3]
1. Phd, Assoc. Prof. Aurel Vlaicu University of Arad; Arad, Maria Cuntan 11, Romania
2. Phd, Lecturer. Aurel Vlaicu University of Arad; Arad, Maria Cuntan 11, Romania
3. Phd, Lecturer, Aurel Vlaicu University of Arad;Flacăra 1A, Romania

Abstract: *The Covid pandemic has created a social situation that teachers had to adapt to, by teaching and learning online. For this, it was necessary to regulate both the legal and methodological framework, as well as the training and development of online learning. At system level, strategies have been developed and teacher training courses have been createdin order to develop the digital skills. In this article we present some examples of such measures taken at national and local level. The correlational study presented aimed to investigate the attitudes of 75 teachers towards the use of digital skills in online learning. The tool used was a questionnaire that allowed the collection of factual data about teachers (seniority, age, job, access to digital resources, their use) and data regarding attitudes towards online learning and the use of digital resources. Based on the statistical analysis, a significant correlation was found between age, teaching experience and receptivity, respectively anxiety about the use of digital technology at teachers of more advanced ages. The data obtained can be part of the analysis of the training needs of teachers for the easier integration of digital media in learning.*

Introduction

The COVID 19 pandemic has highlighted in a very pronounced way the need of teachers to use digital skills in the context of online learning activities. Concerns about online education have not only emerged during the pandemic. For example, E-learning, as an ICT-based activity, is seen as an integral part of a knowledge-based society, as Romania considers itself to be. The use of e-learning is considered a natural knowledge of the evolution of society from the perspective of using digital techniques, with its determinations at social and economic level. (Popa, Dănilă, 2010) The authors already highlighted the transition from the simple use of information technologies in learning to a complex model of learning in the university environment based on accessing web resources, on computer-mediated communication, including automatic responses, on access through portals of institutional resources and processes. Another study conducted in 2010 highlighted the need to adjust learning content, assessment methods, school infrastructure and, last but not least, teacher training strategy for the use of ICT. (Istrate, 2010)

An explanatory model of the paradigm shift on the use of ICT in education is that of Puentedura - SAMR - substitution, augmentation, modification, redefinition. (Puentedura, 2006) In his perspective, at the first level - substitution, technology is just a tool that replaces a framework without bringing about functional changes.

At the augmentation level, functional changes are already taking place, but the role of technology substitute is maintained. The two are the level of improvement. Only by moving on, to the level of modification and redefinition, we can talk about transformation. Thus, the change involves the use of technology in the sense of redesign task, and at the level of redefining technology allows the creation of unaffordable learning situations outside of technology. (Hamilton, Rosenberg, Ackaoglu, 2016; Romrell, Kidder, Wood, 2014; Wahyuni et al., 2020; Cardullo, Wilson, Zygouris-Coe, 2018)

The explanations offered by this model have some limitations that are important to keep in mind. Thus, several challenges are mentioned (Hamilton, Rosenberg, Ackaoglu, 2016): the absence of context - the model does not take into account the limitations of technical equipment or access to technology; rigid structure- the model proposes levels of implementation of technology which are progressive, hierarchical, the transition from one level to another, or the learning process is much more flexible, with customized situations; product or process - the model focuses on the product rather than the process - even if the learning is designed with goals in mind, the process is what determines or not the achievement of goals. Given these limitations of the model, the idea of using it to integrate technology into learning rather than to adapt learning to technology is highlighted.

To the SAMR model, is added the TPACK model (Technological Pedagogical Content Knowledge) in the analysis and explanation of the efficient ways of using digital technology by teachers (Schmidt et al., 2009; Yang, 2018; Elliot, 2018; Drummond, Sweeney, 2017; , 2014). This model is extended by adding context composition. Mishra (2019) argues that *"teachers' success depends not so much on their knowledge of T, P, C and its overlaps, but rather on knowledge of the context. This allows us to go beyond seeing teachers as curriculum designers in their classrooms, but rather as entrepreneurs - knowing how their organization works and how the levers of power and influence can bring about lasting change."*

By summarizing these explanatory principles, we can see the need to train teachers in skills that allow the use of digital technology adapted to the educational context. This requires knowledge and specialized systems in the field of digital technologies, pedagogical skills and use of digital technology, also receptive attitudes towards the insertion of digital technology in the educational process.

Programs for the development of digital skills for teachers in Romania

As in the other Member States of the European Union, in Romania, the "COVID 19" crisis has reconfigured educational practices from the "face to face" interaction to the online environment. The Ministry of Education and Research together with the Romanian Government on October 26, 2020 launched the process of elaborating the Strategy on digitalization of education in Romania 2021 - 2027, called SMART.Edu –a concept focused on the following key concepts: Modern, Accessible School, based on Resources and Digital technologies, project subject to public consultation between December 18, 2020 - February 15, 2021.

The challenges faced by educational institutions in our country were related to: lack of predictability; heterogeneous school network, with a strong digital division between schools; insufficiently developed digital skills for the efficient organization of the teaching process in the online environment; reduced access to technology and reduced internet connectivity; reduced opportunities for families to provide support to the beneficiaries of education, the pupils, to participate in online lessons. (p. 8) These data are added to the information obtained through the focus groups within the Analysis "Integration of technologies in the Romanian educational system" (November 2018).Teachers mention that they rarely use technology in teaching, and when they do, they limit themselves to presentations designed with the help of a video projector. Most students do not have access to a computer or mobile device during class, and when this happens it is almost exclusively during IT classes. 9 out of 10 students from the mentioned focus groups do not know another way to reach information than the one in which they use a certain search engine. Also, most teachers do not encourage the use of resources available on the internet by students, nor do they systematically present reliable online resources (virtual libraries, educational platforms, online magazines, etc.). (p.18)

Regarding the directions of action proposed in the SMART.Edu project, they cover the following areas of interest (p. 11):

- Development of digital skills of pupils and students;
- School curriculum for emerging jobs and trades;
- Lifelong digital education;
- Initial and continuous training of teachers in the matter of digital education;
- Digital technological infrastructure and resources;
- Connectivity;
- Creation of Open Educational Resources (OER);
- Cyber security, data protection, online security and IT ethics.

These directions of action can be also found in the in-service teacher training programs. For example, the Ministry of Education, together with Aurel Vlaicu University of Arad, tefan cel Mare University of Suceava and University of Piteti, developed the European-funded project ETIC: Early and Inclusive and Quality Early Education, with a target group of 2600 teachers. Within the project, two training programs are carried out, one of which is oriented towards the training of educational resource developers - Curricular resources for early education. The purpose of this program is to develop the skills of teachers in pre-university education (preschool and before preschool) in terms of developing products / documents / curricular tools (textbooks, other teaching aids, including in digital format for preschool / before preschool education) to update technological and curricular support of training in relation to the evolution of theories on teaching, learning and assessment at an early age.

The program develops students the ability to create products / documents / curricular tools in digital format, adapted to the learning needs of children at early ages.

Of the three modules of the program, one is related to digitization: The use of ICT / multimedia elements in the development of products / documents of curricular tools specific to early education. The topics developed in this module are: The impact of the use of technology on cognitive and socio-emotional development of preschoolers and Digitalization in the development of products / documents / curricular tools at an early age. The themes were developed starting from the framing theory. Education, socialization and care are considered as conceptual filters to address early education and technology integration. In relation to these frameworks, digital working materials specific to early education were identified and created. (Rad, Dughi, Bala , 2020)

At the level of initial training in the curriculum of those specific programs that were designed to train teachers, school subjects are provided, that aim to develop digital skills for use both in curricular and extracurricular activities (Herlo et al., 2020; Torkos, Egerău, 2020). Thus, in the teacher training program there is the subject Computer Assisted Training which has as objectives: developing an integrative vision on informational teaching and its methods, acquiring the knowledge and skills necessary for a future teacher in using and integrating ICT in learning situations, designing the act didactic through the prism of ICT and E-learning tools as well as the manifestation of a responsible and positive attitude towards the use of IT in the teaching profession.

The master's degree programs in the field of Educational Sciences, have included subjects through which digital skills are developed in teachers. For example, the following competencies are developed through E-learning subject:

Cognitive: The ability to understand, analyze, synthesize and evaluate the notions of e-learning and the use of a specific language, appropriate to virtual learning ability to explain and value the notions in education sciences that are related to E-learning.

Functional - actional: Developing the ability to apply and transfer knowledge in order to creatively develop E-learning applications development of the communication component - face to face and at distance (virtual), supported by IT instruments, in order to consolidate the didactic / educational and managerial one stimulating E-learning and IT-based creativity by adapting the requirements of transformative learning to technological possibilities.

Attitudinal - Adaptability to the evolution of communication and information technology and the acquisition of an adequate, positive, full of initiative behavior, related to its use in educational situations or the continuous training of teachers, various courses are organized and offered by the Arad Teaching Staff House (www.ccdar.ro. The analysis of the competencies included in these programs, highlight the fact that both technical aspects of the use of digital technology and the motivational aspects of the use of these technologies in the learning process are addressed. The courses are aimed at teachers, from various schooling cycles and training skills, in designing learning activities with integrated digital technology and

creative and ethical attitudes towards the use of ICT in learning. Thus, a program entitled motivation for learning with technology aims at the following skills: effective integration of ICT tools in the teaching process, regardless of the subject taught, development of teaching design documents (learning units, lesson plans) integrating ICT tools creating and implementing learning and assessment situations using ICT tools. Other programs, also include elements of e-learning or are related to social networks: advanced training in information and communication technology with the skills of creating lessons and tests and uploading them on e-Learning platforms, respectively the use of social networks for teaching purposes. Communication, already defined as a fundamental competence of teachers, is also developed from a digital perspective, through the training program Initiation in WEB2.0 - WEB3.0. Teachers are trained in the use of virtual space, to accumulate, transmit and interpret knowledge, generate ideas through the use of Web 2.0 - Web 3.0 tools, to be used by those interested, intensive communication, internationally, with people interested in a particular topic and the ability to critically verify information, found everywhere and at any time. Specifically, online learning, with the design of learning and assessment, s addressed in the program sing the Moodle platform in teaching Teachers can benefit from training programs, not only for the development of the school learning process, but also from programs that develop administrative skills. For example, the program sing Microsoft excel in the development of school documents aims to train the ability to use the operations and functions of the excel program, that complements the multitude of digital resources for the formation of these administrative skills.

About the study

n order to adapt the training offered for teachers in the field of digital technology, we consider it important to identify attitudes towards digital resources and their use in online learning. The conditions that favor the use of ICT in the learning process were also highlighted in studies that identified them as determinants of ICT integration in school. A study conducted in Germany, on a group of 372 teachers, aimed to build a tool for assessing ICT competence beliefs. Six dimensions of this concept were thus identified: Information and data literacy, communication and collaboration, digital content creation, safety and security, problem solving, and analyzing and reflecting Rubach, Lazarides, 2021). The same study highlighted a significant correlation between the gender of teachers, the student-centered teaching style and the level of use of ICT. Another study highlighted the link between perceived self-efficacy in the use o digital tools, information assessment strategies, digital skills already formed and the use of ICT in the learning process. (Hatlevik, 2017) In deciding to use ICT in learning, in addition to personal factors related to teachers, objective factors such a school infrastructure, access to digital resources and school policies on the use of ICT in learning are taken into account. (Couple Roblin et al., 2018).

The study conducted in Portugal (Dias-Trinidade, Ferreira, 2018) used a tool for assessing digital proficiency level of teachers, called DigCompEdu CheckIn, created by

EU Science Hub and validated on the Portuguese population. The professional competencies of the teachers are evaluated, including the area of digital resources and technologies with the items of professional collaboration, respectively management, protecting and sharing. The skills of learners are mentioned "facilitating learners' digital skills with actively engaging learners, information and media literacy, communication, responsible use and problem solving." The assessment tool used proved to be very effective in identifying the evolution of teachers from literacy to digital fluency.

In the context of the pandemic, all levels of education have shifted from face-to-face learning to online learning. If some studies focused on students 'reaction to online learning (Maier, 2021; Gonzalez-Ramirez et al., 2021; Adnan, Anwar, 2020), in this study we focus on teachers' reactions. They depended on their abilities and availability to use digital technology. Thus, the following categories of teachers could be observed: those who were already familiar with the use of digital technology in learning and switched very easily to online work, those who had less developed digital skills, but were willing to learn quickly and to adapt to the new conditions and those who did not have skills and had a low availability to work online. As expected, the existence of digital skills has ensured a better use of information technology in teaching, especially in the format of online learning.

Objectives of the study

One of the main objectives of the study was to find out how digital learning and teaching is considered in middle schools and high schools among teachers from Romania.

The secondary objective of the study was to find out the openness of teachers, regarding the use of digital tools in their daily activities.

Hypothesis of the research

The hypothesis of the study was formulated as it follows:

There is a statistically significant positive correlation between the age, teaching experience, receptivity and anxiety level of teachers and the use of digital technology in the teaching learning process.

Methodology

Research instruments

The research of the present article was based on the method of survey. The main instrument used was the questionnaire. This instrument was applied, with the purpose of collecting data regarding the opinions, knowledge and experiences of teachers from middle school level and high school level, on the concepts of digital learning.

This tool was developed by the authors, and was applied, with the purpose of collecting data regarding the opinions, knowledge and experiences of teachers from Arad County, Romania, regarding the concepts of digital teaching and learning and the use of multimedia tools.

The questionnaire was based on personal and identifying information of the teachers that have participated in the study, educational experience, gender, age, the environment in which they profess and the specialization they have, and also their knowledge and attitude on the digital learning, and skills that can be developed, in order

to motivate better adaptation to its instruments and preparation of the lessons.

The items were elaborated maintaining the same structure of the objectives, using different scales. The first items refer to the familiarity with the concepts. The questionnaire ends with questions related to limitations. We wanted to offer a realistic image on the availability of the teachers to overcome in organizing digital learning lessons in class or during special educational situations, such as online learning.

Of the 20 items of the questionnaire, 4 represent identification variables, 16 items give teachers the opportunity to select answer options or to fill in short answers, giving the possibility to perform a clear and relevant statistical analysis.

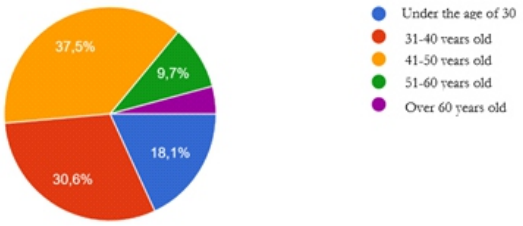
Research sample

There was a convenience sample, where participants were selected based on naturally occurring groups. Also, there were limitations of the study, regarding the fact that the subject is still new in Romanian literature. Also, in terms of statistical relevance of the data that was gathered, the research utilized convenience sampling technique, as the purpose of this investigation is explorative. The total number of 75 participants was consecutively selected according to the order of appearance, when completing the online questionnaire, that was shared on social media platforms, according to the convenient accessibility principle.

Out of the total number of surveyed teachers, 56,7% carry out their instructive-educational activity at high school level, and 43,3% at middle school level.

Compared to the age category of the teachers who participated to the present study, there was a significant variation:

- 18,1% of teachers are under the age of 30
- 30,6% are aged between 31-40 years
- 37,5% are ages between 41-50 years
- 9,7% between 51-60 years and
- A very small percent of the respondents, over the age of 60.



Distribution of participants by the school level they engage in scholarly activities

Within all participants, a percent of 56,7% teachers are working in middle-school, and 43,3% work in high-schools. A number of 2 answers could not be taken into consideration, because of some technical issues regarding the completion of the questionnaire.

As for the question that refers to the seniority in education, it was found that 15 teachers who completed the questionnaire have less than 5 years old in the educational field, an even number have the final degree in education, 11 have second teaching degree, and 31 teachers have first teaching degree.

Research findings

The collected data was introduced as quantitative data in the SPSS

statistical program, in order to analyze and conclude on the results. There were used both parametric and non-parametric statistical tests in order to get to the results. Correlations were analyzed between the extent of digital tool use and between several pre-established variables. Also, correlations were analyzed between the age and experience of teachers and the way in which they use digital tools in order to develop several competencies of students and also to have a clear image on how it affects the instructive educational process.

There have been noticed a moderate negative correlation between the age of the participants and the enthusiasm level regarding digital teaching and learning. The results show that those teachers that are older in age, do not tend to be less enthusiastic about teaching in the digital era, using multimedia instruments during the instructional process, only in a moderate perspective.

		Age	Level of enthusiasm
Age	Pearson Correlation	1	-0.07
	Sig. (2-tailed)		0.557
	N	72	72
Level of enthusiasm	Pearson Correlation	-0.07	1
	Sig. (2-tailed)	0.557	
	N	72	72

Table No. 1. Table containing Pearson's correlation between teachers' age and level of enthusiasm for online learning

The answers show the openness of teachers to adapt curricular contents to digital teaching. This prove that education in completion with the digital instruments, can be slightly adapted to various teaching-learning situations by teachers of all age.

Another important correlation that has to be analyzed, is the level of anxiety in preparing and holding lessons and the school teaching level of teachers. The answers are represented in the following table:

Independent Samples Test

		Levine's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TotalOEComp	Equal variances assumed	7,605	,011	8,920	31	,000	6,089	,683	4,697	7,491
	Equal variances not assumed			9,433	26,991	,000	6,079	,646	4,762	7,416

Table No. 2. Table representing independent sample T test between the school level (middle school/high school) and the level of anxiety they encounter in preparing and holding lessons during online classes

There is a strong positive correlation between the two variables, meaning that as the school level grows, teachers have a bigger level of anxiety in preparing and holding digital learning lessons. This could be because of the level of their own preparation in the ICT field or because of the belief that students that are higher at age level, could be at a higher level at using digital technologies too.

Conclusions

The present article, through its theoretical frame and its practical outcome, brings an insight on the situation of digital learning and the use of all its involved tools, in order to create practical yes qualitative teaching and learning situations. The theoretical frame presents the most valuable and recent studies that were

made regarding the use of ICT in the educational field, during special educational times, such as pandemics. It also highlights some of the most important trials of the Romanian educational system in creating valuable tools that could help teachers at all levels in using ICT during online classes. The present study is different from all those presented before, because of the approach that places the teacher and its needs in the light. The practical part, presents a study that creates a connection between the theoretical frame and the research that has the teacher in the focus. The overall results show the importance of introducing preparing classes for teachers, so they can feel secure in choosing the right tools in the organization and teaching process of digital learning. Deepening within the other phenomena studies, that show the same results or similar ones to those presented in this study, appear the possibility to achieve through holistic exploration, a training of the valences of digital learning. One of the most genuine preoccupations of the human community and of the educational systems throughout the world, is to create adaptable members of the society, through education, and this can be possible through the correct training of those who are responsible for education: teachers.

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Tiberiu Dughi is associate professor at the Faculty of Sciences of Education, Psychology and Social Sciences, Aurel Vlaicu University of Arad, Romania. He holds a specialization in Psychology (PhD) and Socio-Psychology of the Family (MD). He has been an expert in research in over 10 projects funded by the European Union and the Ministry of Education. His research and applied interests include: Educational Psychology, Personality Psychology, Professional and Vocational Counseling. He is co-author of 10 books and 48 articles published at international conferences or in specialized journals. He is psychologist supervisor in

educational psychology and member of the Association of Psychologist in Romania and Association of Psychologists in Belgium.

Dana Dughi is university lecturer at the "Aurel Vlaicu" University of Arad with disciplines in the field of communication and teaching of Romanian language and literature. She also holds a special psycho-pedagogy license, a Master in Educational Management and PhD in Philology. She is trainer and Feuerstein therapist, member of COPSI. Her professional concerns focus on continuing education of teachers. She worked as a trainer in five projects funded by the Ministry of Education in collaboration with CCD Arad and ISJ Arad. She participated in over 10 conferences and published three books and 10 articles in conferences or in specialized publications.

Torkos Henrietta, PhD, University lecturer at University of Aurel Vlaicu from Arad, with a PhD in Educational Sciences, specialized in Outdoor Education. Finished bachelor studies in Economics and Educational Sciences, got Masters Degrees both in Actual Tendencies in Romanian literature and Educational Policies. The main fields of interest in research and writing are education and outdoor education. She finished studies in Norway on education and outdoor learning strategies, also on classroom management. In the present, she works as a university lecturer, holding lectures in pedagogy and psycho-pedagogy specialties.

Digital Payment System Development in India

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Ms. Mamta Rani
Assistant Professor, Rattan Professional Education College, Sohana, Mohali (Punjab),

ABSTRACT: *Digital payment methods have been growing exponentially owing to global progress in technology and high product ranges. The adoption of digital payments has gained momentum in India over recent years. Demonetization has played a prominent role in the growth of online payment technologies in the country. Nationwide lockdown during the Covid-19 pandemic has also boosted the digital payment systems in India. The present paper reviews the development of digital payment services. The paper also discusses the various modes used for digital payments in India. The study highlighted the increased use of the Unified Payment Interface (UPI) network and other payment apps for digital money transactions. Moreover, the paper studies the impact of the development of digital payment services in India. The paper is based on secondary data, taken from the RBI bulletin, Annual Reports, various research papers, journal articles, and websites. The results demonstrated that digital payments have increased convenience and transparency in payments but have provoked security and reliability issues in financial transactions. The research evidence that the digital payment systems certainly benefited the people having a low and middle income, which will eventually help to boost the economy of India.*

Keywords: Digital Payment, online transaction, mobile banking, digital wallets,

Introduction

Digital Technology has expanded worldwide over the last two decades. The need for contactless retailers to follow digital infrastructure through cameras and sensors is increasing as a result of artificial intelligence (Rulić et al., 2017). Digital payment services were introduced to make clear financial transactions and eradicate money laundering from society. Moreover, digital payments were promoted to ensure the appropriate availability of cash in banking institutions for supplying credit to people (Baghla, 2018). Digital payments refer to consumer transactions for goods and services done at a point of sale (POS) via using debit and credit cards and through online banking or mobile banking. Traditionally the preferred mode of payment of people was cash, cheques, and demand drafts. Nowadays consumers have been liberated from the chronological and spatial limits of regular business under new developments in mobile and wireless technologies (Balasubramanian et al., 2002). Technological innovations have enhanced the transformation of the general public from cash payments to electronic payment (E-payment) modes. Sahi et al. (2021) argued that the most important elements determining buyers' intentions of using online payment were their hopes for successful digital transactions and convenience, but alleged threat and trust were examined as hindrances in the adoption of digital payment methods. However, A large portion of the community has already adopted the use of digital techniques for their payments in the last few years. In business transactions, consumers

frequently use smart cards and phones in a secure manner (Dewan & Chen, 2005).

One of the essential objectives of the Government of India (GOI) is to move digitally (Kedar, 2015). The government has adopted several measures for assisting the country to move towards a cashless economy. The 'Digital India' program was initiated by the GOI under the Ministry of Electronics and Information Technology in 2015 to change India into a knowledge-driven and digitally empowered economy (Nagpal et al., 2020). Among the main perspectives of this program, significant attention was given to the digital payment system. Banks have been given access to a promotional and awareness framework for digital payments (Ministry of Electronics & Information Technology). Different kinds of digital payment systems like Credit/Debit Cards, Mobile Banking, Mobile wallet system, etc., are assisting consumers in conducting their financial transactions. Demonetization, announced by PM Modi in November 2016, has also promoted cashless transactions in India (Fouillet et al., 2021). The number of bank accounts has increased after the implementation of demonetization in India. E-commerce business has also pushed the digital payment mode in recent years as consumers purchase from online shopping sites like Amazon, Flipkart, Alibaba, etc.

The study conducted by Patil et al., (2018) reviewed digital and mobile payment adoption. They revealed that in most studies, performance, anticipation, and possible usefulness were found to be the most important factors which clear the intent of customers for using mobile payments, but the alleged risk was recognized as an obstacle to the adoption of digital payment methods. Similarly, Vashistha et al. (2019) in their study found that the customers interested in using mobile payments were apprehensive owing to the incomprehension of technology and the lack of an appropriate remedy for transactional problems. They further revealed that mobile payments were seen as an unneeded hassle by traders. Vaidya et al. (2020) found in their study that people choose digital payment platforms over the regular payment process and the use of digital payment facilities depends upon the age, education, and job profile of the consumers. A survey conducted from 1,537 consumers in 2020 by the Federal Reserve concluded that only 19 percent of consumers choose cash as a mode of payment whereas 27 percent of consumers pay by using credit cards and 28 percent of consumers use the debit card as a mode of payment (Steele et al., 2021)
.
The outbreak of Covid-19 has rapidly increased the use of online transactions and mobile payment systems worldwide. Smartphones and mobile payment appliances are gaining in popularity in the present-day world and are frequently used for online payments through mobile apps. Traders and consumers have adopted digital payment systems rapidly amid the pandemic. Purba et al. (2021) conducted a study in Indonesia and revealed that consumers in Indonesia choose digital technologies for payment to outlive during the Covid-19 pandemic. National Payments Corporation of India (NPCI) encouraged Indians to use digital payment facilities in times of crisis to control the spread of disease. In August 2020, a program was

proclaimed to test technology that would allow digital payments to be made even in rural areas where internet access is either non-existent or spotty (RBI Bulletin, 2021). Attitudes of the public toward the payment mode have taken 360 degrees turn during the pandemic. During the 2020-21 fiscal year, the payment systems grew by 26.2 percent in volume, whereas digital transactions accounted for 98.5 percent of total non-cash retail payments (RBI Annual Report, 2020-21). Das et al. (2020) found in their study that BHIM-UPI usage has increased for digital money transactions after the outbreak of the Covid-19 pandemic. It is found that Pay TM, Google Pay, PhonePe and Amazon Pay apps have become significant sources used by consumers for digital transactions in India (PTI, 2020). The present study attempts to examine the development of digital payment services, study the various modes of digital payments in India, and study the impact of digital payments on the Indian Economy.

Data Sources and Methodology

The paper is based on secondary data. The data on the development of the digital payment system in India is taken from the websites of the Reserve Bank of India (RBI) and the National Payments Corporation of India (NPCI). The data on the volume and value of digital payment systems from 2018-19 to 2010-21 is taken from the RBI Handbook of Statistics on the Indian Economy 2020-21. The data on changes in payment preferences and various preferred modes of digital payments in India is collected from the Reserve Bank of India, Payment and Settlement Systems in India. the RBI bulletin, RBI Annual Reports, various research papers, journal articles, and websites.

Results and Discussions

Developments in Digital Payment Systems

An act relating to the regulation and control payment system in India with the Reserve Bank of India (RBI) as the regulatory and supervisory authority was passed in 2007 This act is known as 'The Payment and Settlement Systems Act, 2007' (The Payment and Settlement Systems Act, 2007). RBI has taken a large number of initiatives to promote digital payment techniques for consumer ease along with strengthening security. National Payments Corporation of India (NPCI) was founded by the Reserve Bank of India and the Indian Banks Association in December 2008 to manage retail payments in India. Subsequently, various developments were made for the proper functioning of digital payments in India as shown in Table – 1.

Table-1
Developments in the Digital Payments System in India

YEAR	Development in Digital Payments Methods
2008	NPCI was established to manage retail payments in India.
2009	The Aadhaar system is being rolled out across the country.
2010	IMPS and PPIs have been launched.
	Online Payment Gateway Service Providers (OPSGP) guidelines were developed.
2011	A scheme of Aadhaar-based Direct Benefit Transfer (DBT) through the Aadhar Enabled Payment System (AePS) and National Automated Clearing House (NACH) was launched which allows money to be deposited straight into the bank account of the recipient.
2012	RuPay was launched by NPCI in March.
	The Merchant Discount Rate (MDR) policy was introduced.
2013	The Padmanabhan committee was formed to investigate GIRO-based payment methods.

2014	Payments bank guidelines were formed in July.
2015	In May, criteria for contactless payments were created.
2016	Unified Payments Interface (UPI) and National Electronic Toll Collection (NETC) systems have been launched.
	The system of Aadhaar-based authentication for card-present (CP) transactions has been introduced.
2017	MDR for debit card transactions is being rationalized.
	The Bharat QR Code has been launched.
	Bharat Bill Pay System (BBPS) is introduced for bill payments.
	FASTag (Federal Automated Toll Collection System) for toll payments is launched.
2018	Interoperability guidelines for PPIs/Wallets are being developed.
2019	The 'Digital India' Campaign was launched.
	National Common Mobility Card (NCMC) was launched in March.
	FASTag has been made compulsory for all automobiles.
	Reimbursement guidelines for MDR are being developed.
	'Tokenisation-Card Transaction Services' guidelines are being formed.
	The Ombudsman Scheme for digital transactions has been introduced.
2020	RBI issued the guidelines for greater card transaction security and improved convenience for the user in January.
	RBI issued the guidelines on the Regulation of Payment Aggregates and Payment Gateways in September.
	RTGS becomes available 24 hours a day on all days of the year from 14 December.
2021	RBI Issued guidelines for Digital Payments, Security Controls in February.

Source: Websites of RBI and NPCI

Various Modes of Digital Payments in India

Banking Cards – Banking cards like Debit/Credit Cards are used to transfer payment from one bank account to another bank account. These cards provide more security to consumers and are commonly used in India. The cardholder can also use these cards to pay bills, payment for shopping in stores, and for online shopping payments. Many other payment cards like RuPay, Visa, and Mastercard are also used by consumers and traders in India.

National Electronic Fund Transfer (NEFT) – NEFT originated in 2005 by the Reserve Bank of India. The amount up to Rs. 10 lakhs can be transferred to any account through NEFT. This service is available 24 hours a day, 7 days a week. It can take up to 2 hours for the transfer to take place.

Real-Time Gross Settlement (RTGS) – This system is operated by the Reserve Bank of India. By using RTGS, amounts up to Rs. 2 lakhs can be transferred to any account. From 14 December 2020, the RTGS system went active 24 hours a day, 7 days a week. The money sent by RTGS was delivered instantly.

Immediate Payment Service (IMPS) – IMPS was introduced as an instant money-sending option at that time when NEFT was not available 24 hours a day. This electronic fund transfer service is used to access bank accounts and manage inter-bank transactions. The amounts up to Rs. 5 lakhs can be transferred instantly by using IMPS. The transaction charges in the case of IMPS are higher than NEFT.

Unified Payment Interface (UPI) – UPI was developed by the National Payment Corporations of India (NPCI) and introduced in India in August 2016 for money transfers directly from banking institutions. The amounts up to Rs. 1 lakh per day can be transferred by using UPI. There are no transaction charges for the payment by UPI. Apps like Google Pay, PhonePe, Bhim, etc., work on top of the UPI system. These UPI-based apps link to the bank account of the account holder and the transfer happens directly from account to account. The money can also be transferred from any UPI app to any other UPI app with the UPI ID of the person to whom the money wants to transfer.

Mobile banking – The services offered to its clients by the bank to carry out financial operations by using mobile devices like smartphones come under mobile banking. The transactions are completed by the use of mobile banking apps provided by the banks for payment purposes. A person can pay bills and transfer funds into another person's account by using mobile banking. This service is available 24 hours a day and 7 days a week.

Digital Wallets – There are many digital wallets like Paytm, MobiKwik, etc., which can be used to send money from one person to another. Digital wallets are designed to hold cash in digital form. Most of these services allow sending money only up to smaller limits and have no associated transaction charges. With the rise of UPI apps, wallet payments are not very frequently used.

Many types of digital wallets, mobile banking, and UPI payment apps are used to proceed with the digital form of payment in India. Some of these apps are as follows;

Bharat QR Code – Bharat QR Code is a cross-platform payment solution that can accept payments from Visa, MasterCard, and RuPay cards. There is no cost associated with the use of the Bharat QR Code. The amount of the trader has been received in the bank account immediately, whose payments are accepted through the Bharat QR Code.

Google Pay – It is a UPI Payment App by which a person can transfer money to any other person, can do online shopping, and pay bills directly from his bank account. Google Pay requires a passcode or physical authentication to activate. It creates a virtual account number that represents the account details of the user. To keep client payment details confidential, it sends a one-time security code to the customer.

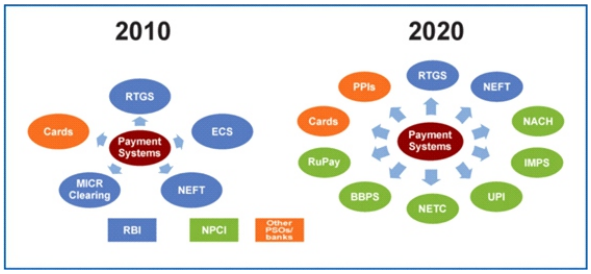
BHIM app – A Mobile App, Bharat Interface for Money (BHIM) is developed by the National Payment Corporation of India (NPCL) for quick payment transactions. It is based on the UPI (Unified Payment Interface). Scanning and paying with a QR code is possible with this app. BHIM app was launched by Prime Minister Modi on 30 December 2016 for simplifying digital payments for consumers (Hindustan Times, 2017). Users of this app can send and receive money using their Aadhar number, bank account number and IFSC code, and mobile number.

Other apps – Phonepe, PayTM, Mobikwik, mRupee, Jio Money, Airtel Money, etc., are some other apps that are used for online payments by consumers and merchants.

Change in Payment Preferences over the Last Decade

Payment system provision by banks was long viewed as both a vital public service and a possible springboard for a variety of other services. Due to the proliferation of payment methods over the past ten years, consumers now have a wide range of payment options. The use of mobile-based payments has been made easier nationwide with the development of lightweight acceptance infrastructure (QR Codes). India has seen an enormous increase in payment methods and a substantial change in payment preferences over the last ten years (Figure 1).

Figure 1: Change in Payment Preferences over the Last Decade



Source: Reserve Bank of India, Payment and Settlement Systems in India.

Table - 2
Volume and Value of Digital Payment Systems During the Last Three Years
(Volume in Lakh and Value in Rs. Crore)

Payment Systems	2018-19		2019-20		2020-21	
	Volume	Value	Volume	Value	Volume	Value
RTGS	1366	135688187	1507	131156475	1592	105599849
NEFT	23189	22793608	27445	22945580	30928	25130910
Credit Cards	17626	603413	21773	730895	17641	630414
Debit Cards	44143	593475	51239	804870	40146	661385
IMPS	17529	1590257	25792	2337541	32783	2941500
UPI	53915	876971	125186	2131730	223307	4103658
BHIM Aadhar Pay	68	815	91	1303	161	2580

Source: RBI Handbook of Statistics on the Indian Economy 2020-21.

Challenges in the Adoption of Digital Payments System

- There is a disparity in the pace of adoption of digital payments in India due to a lack of digital financial awareness and digital financial Literacy. Many consumers lost their money while transacting online due to a lack of knowledge and lengthy procedure. Moreover, several older people do not know digital payment techniques.
- Poor connectivity in rural areas and underground markets is a major issue in the success of digital payments. Several rural communities lack the necessary infrastructure and technology to embrace digitalization and therefore the residents become unable to adopt digital payment facilities.
- Sometimes the hit-or-miss compatibility of banks with the payment apps suffers a lot to the consumers. Some payment apps take a long time to verify a mobile number and several times fail to verify.

● The cost of digital transactions can be an obstacle to digital payment adoption by consumers. Many retailers take additional charges as the transaction cost from consumers for every debit card transaction. The service fee associated with moving money from wallet to a bank account is also carried by the consumers.

● The high cost of setting up acceptance of digital payment infrastructure such as point-of-sale (PoS) deters several petty traders to adopt these payment techniques.

● Cybercrime and the security of data are major threats to online transactions. There is always a concern about the privacy and security of data exchanged through the internet. Hackers can misuse and manipulate the personal data of consumers and traders.

Impact of Digital Payment Systems Development on India

he government of India' substantive agenda, 'Digital India' aims to turn India into a digitally enabled and knowledge-based economy. The government' policy approach emphasizes the digital payment sector' great development potential. The advent of several digital payment techniques during the last ten years has resulted in a tremendous rise in digital transactions in India. RBI has made great efforts to create a payment ecosystem wherein both banks and no-banks can live and grow simultaneously, which is a good prospectus for the expansion and progress of the digital payment system in India. The government has taken various measures to aware consumers of online transactions. The controller and other PSOs have made considerable strides by dint of informational programs such as, 'BI Kehta Hai'and eBaat. Moreover, the introduction of FinTech companies in the payments market has accelerated the growth of the payment ecosystem. It is predicted that card transactions will expand by more than 20 percent in 2025 in the country, as cash payments will shift to cards and other digital payment methods as a result of government push and rising digital insights (PWC, 2020).

The business strategy of traditional banking agencies is changing in the current universe. A wide range of banks are going digital for their miscellaneous services. In addition to digital models, hybrid banking models are existing which also combine public and private clouds with traditionally arranged techniques. The electronic fund transfer system has experienced a significant public impact since it provides a quick transfer of benefits to residents while also improving the productivity, clarity, efficacy and responsibility of the payment system. digital payments provide a consistent experience to clients. Online payments are favored because of their reduced reliance on cash, rapid transfer speeds, and convenience of use. Cash managing and handling is a time-consuming and exhausting process. Aside rom the possibility of losing money, the possibility of being scammed is also there. Now mobile carries more money than a wallet in the pocket, which decreases the risk of a pickpocket. By using digital methods of payments, money can be sent and received instantly from anywhere in the globe Online payment of electricity bills, online gas booking, online hotel booking, etc., have boosted the volume of digital transactions in recent years. The scholarships are directly shifted to the accounts of the students by the government through digital payment modes.

Digital payments have the potential to reduce corruption and eradicate black money from the county as they facilitate the smooth movement of funds. Such types of payments have the transparency of funds. Due to the transparency of funds, money is floating i the economy without any hoarding of money, and taxes are properly paid by the traders in India. Owing to the ease of online payments, an increasing number of people purchased goods and services online which increases the money flow in the economy and hels in the growth of the economy.

Conclusion

Digitalization of an economy has turned immensely inevitable in modern society. The digital and technological revolution has paved the way for innovative methods of payment worldwide. Demonetization has broken down the traditional barriers to digital payment adoption. The usage of cash as a payment mode is continuously declining. The use of digital payment services has led to an increase in online fraud and security offenses. The risk in digital transactions can be minimized by awareness. Customers will preer more online transactions if they realize that digital payment modes are convenient and secure. The advancement of the economy is aided by a rise in money flow due to the adoption of digital payment techniques. The study emphasizes the adoption of adequate measures by E-payment providers for the protection of various kinds of cyber security menaces. The issue of digital literacy and insufficient information should be addressed to increase digital payments which are essential for the growth of the economy

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Examining the Media Consumption Behaviour of females in India

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Dr. Harikishni Nain
Associate Professor, Department of Commerce, Bharati College, University of Delhi

ABSTRACT: *This paper aims to examine the media consumption behaviour of females in India. The understanding of the media consumption behaviour of females in terms of why, what, when, and how they consume different media options will enable various stakeholders to identify their interactive effects on females' overall well-being, access to affordable and quality health care, educational opportunities, empowerment, decision-making skills, development, and social status by effectively including their media consumption behaviour. This is an empirical study carried out through a cross-sectional web survey of 383 Indian females in the age group of 11-50 years. This study contributes to the understanding of the emergence of females as media consumers in patriarchal Indian society and provides cognizance for the marketing practitioners, governments, policymakers and researchers to take note of the copious opportunities in this area.*

Keywords – Uses and Gratification, Digital Divide, Media Consumption, India

INTRODUCTION

Communication is the foundation of any society. Communication facilitates information and knowledge sharing, socialization process, entertainment, and creating a common understanding of issues (Schramm, 1977). A human being starts communicating as soon as he starts producing his first noise in the act of drawing his parents' attention. It is quite hard to imagine a life without communication. When the communication is targeted to disseminate information to a mass audience in a short time some media technologies are used. These technologies are collectively called mass media. In short, mass media refers to a diverse array of media technologies such as television, movies, advertising, radio, the Internet, magazines, and newspapers that reach a large audience via mass communication (Capriotti et al., 2020; Camilleri, 2019). Companies use mass media to reach customers, create awareness about the products/services, build brand image, boost brand engagement, improve sales and develop brand loyalty (Hair et al., 2020; Dolan, 2019; Dhir, and Torsheim, 2016). Mass media has also been an active socialization agent for all (Capriotti et al., 2020; Dhir, and Torsheim, 2016). Television shows, movies, ted-talks, YouTube content, music, newspapers, radio, magazines, social media, websites, and other numerous aspects of mass media influence our views, perceptions, beliefs, and practices about politics, religion, culture, gender biases, lifestyles, clothing, and food-habits (Gamage et al., 2022; Hair et al., 2020; Kaur et al., 2020).

The evolution of media, from traditional or non-digital media (television, movies, advertising, radio, magazines, and newspapers) to new digital media (the Internet), has transformed the way we understand the world around us. As

compared to traditional media, the new digital media is an interactive, customized, and diverse user-oriented way of communicating (Haridakis and Humphries, 2019). Media expose us to various viewpoints that shape our understanding and knowledge of the activities around us. Both, the content and the medium through which information is shared with others play a significant role in creating an understanding of that information (Gamage et al., 2022; Capriotti et al., 2020). With the emergence of new forms of media and media technology, the pattern of media consumption is also undergoing rapid changes. The Internet represents a great prospect for both kids as well as adults (Dolan, 2019; Dhir, and Torsheim, 2016). Substantial research has been undertaken to assess how the different media has been consumed by people across generations, countries, and age groups (Livingstone 2003). After the spread of Internet connectivity and smartphones, although the research on mass media consumer behaviour has grown multi-fold, it remains a relatively small body of literature (Joo et al., 2018; Kim and Weaver, 2002) in economically emerging countries like India.

Media, if used appropriately, has the potential to be the guiding force behind the policies developed, or to be developed, for the betterment of female health issues (Hair et al., 2020; Dolan, 2019) which are not yet been discussed openly in India, i.e., what to inform (the content), who to inform (the beneficiary), and how and where to inform (media), how much to inform (depth). Removing the ambiguity, misinformation, and unawareness around available options will help marketers, policymakers, and females to make more informed choices for their well-being. However, there is hardly any research that may confirm the media consumption habits of females, particularly in India, hence this study aims to fill this gap.

LITERATURE REVIEW

Numerous studies have identified long-term implications of media used for human behaviour in terms of philanthropic behaviour (Haridakis and Humphries, 2019), inclination towards violence (Hair et al., 2020; Dhir, and Torsheim, 2016), eating habits, sexual experiences, absorption of values (Dolan, 2019), development of worldview, perception of gender equality, political attitudes, career aspirations, spiritual values, stereotypes, and cognitive skills (Lemish, 2015). Media expose us to various viewpoints that shape our understanding and knowledge of the activities around us. The evolution of media, from traditional or non-digital media (television, movies, advertising, radio, magazines, and newspapers) to new digital media (the Internet), has transformed the way we understand the world around us (Camilleri and Camilleri, 2019; GWI, 2019). As compared to traditional media, the new digital media is an interactive, customized, and diverse user-oriented way of communicating resulting in exponential growth in the time spent with digital media by everyone on a daily basis. People are not only using the media but also doing media multitasking (Hair et al., 2020; Herrero and Martín, 2017).

Media socialization is an ongoing "mediatisation" process encompassing three basic dimensions: (i) accessibility of media content and devices; (ii) extent of

media usage and exposure; and (iii) liking for a specific variety of media (Livingstone, 2003). In the past decades, as compared to traditional media, there has been an exponential growth in the amount of time spent with digital media by everyone on a daily basis due to the greater availability of cheaper smartphones, cost effective Internet connectivity, and a huge variety of interactive media. People are not only using the media but also doing media multitasking (Haridakis and Humphries, 2019; Dhir, and Torsheim, 2016). Collectively, these elements provide an ample scope for an important, spirited, and well-timed field of further enquiry and examination. In the digital era, media permeate all spheres of life at every life cycle stage with its presence in children's rooms, in schools, in families, in offices, and in senior citizens' homes. However, at each stage, depending upon various factors such as one's peer group, professional life, family life, income, social status, and number of children the different types of media will matter.

Technology also keeps evolving over time and gradually offers increasing access to media and media content similarly, new digital devices shape the media habits of people who may or may not have grown up with digital media (Hair et al., 2020). Studies have documented many differences in behaviour of media users both at a global and local levels, and observed that media usage preferences are shaped by various variables such as age, gender, country of residence, educational qualification, social status, income, personality, technical affinity, and cultural background. Researchers have found children and younger people to be more exposed and influenced by the effects of media. (Dolan, 2019; Dhir, and Torsheim, 2016).

Family households are also becoming technologically equipped and family members autonomous about integrating media in their daily lives. Different media are used to strengthen bonds between family members. Meanwhile, ubiquitous and multi functional devices along with access to global media content have resulted in the individualization of media use. Consequently, some studies have found adults to be more involved with the Internet than children and youth (Herrero and Martín, 2017). People want to be “always on” and regularly update their social media profiles, post pictures, status, and gadgets. In the digital era, societies are becoming hyper connected in which a large number of people have adopted: (i) a digital lifestyles; (ii) learning to use media as a resource for private, educational, and professional purposes; (iii) recognizing the potential risks of over consumption of media; and (iv) becoming aware of distorted media realities, digital distractions, information overload, and privacy risks. Being a networked individual has become essentially an identity in its own right. From a socialization perspective, media literacy assists as a tool in adoption of different processes, cultures, values, beliefs, and lifestyles (Capriotti et al., 2020; Herrero and Martín, 2017).

STUDY OBJECTIVES

1. To examine the media consumption behaviour of females in India.
2. To understand the media consumption behaviour of females

in terms of why, what, when, and how they consume different media options.

3. To identify the interactive effects of different media options on females' overall well-being, access to affordable and quality health care, educational opportunities, empowerment, decision-making skills, development, and social status.

HYPOTHESES

H1: Females' consumption of media varies across traditional and digital media.

H2: Females' most preferred media choice varies across the nature of activity undertaken.

H3: Females' frequency of the Internet consumption varies across the activities undertaken.

MATERIAL AND METHOD

This is an exploratory primary data-based study conducted to provide an overview of the media consumption behaviour of females in India from a digital health marketing perspective. The primary data were obtained through a web survey of 383 Indian females in the Delhi NCR region. A non-disguised questionnaire comprising two sections was used as a tool for data collection. The study sample covered a wide range of respondents from 11 to 50 years of age. The survey's preconditions ensured that all respondents were able to surf the Internet independently. Every possible effort was made to ensure a representative sample of Indian females covering a wide range of age groups across different socio-economic backgrounds.

The respondents were ensured confidentiality and their right to freedom to refuse to respond to any particular statement. The questionnaire link was shared with the prospective respondents via WhatsApp groups and e-mails, resulting in the collection of data from 549 females out of which few were discarded (being incomplete) and consequently, the final sample comprised 383 females (response rate 71 per cent). The response set was one response-one person, with a time limit of two weeks; i.e., the third, and fourth week of August 2022. The surveyed sample of 383 comprised 52 per cent rural (N = 200) and 48 percent urban (N = 183) females. The respondents were spread across four age groups, with the maximum being 21-30 (36 per cent) years old. All were educated, and about one-third (35 per cent) working.

RESULTS AND DISCUSSIONS

The first hypothesis (H1) proposed that females' consumption of media varies across traditional and digital media. In this direction, all the available media options, for different possible activities that may have been undertaken by respondents on an average daily bases, were identified and categorized into two types of media, one that needs the Internet for execution herein termed as digital media that includes studying/working online, messaging on phone, and Internet surfing including social media usage, and another for whom the Internet is not needed herein termed as traditional media that includes studying/working offline, reading, watching television, and listening radio. Table 1 summarizes the corresponding data. The results show that about three-fourths of the respondents spend more than one hour on studies/working both online (43.1 percent + 32.1 percent = 75.2 percent) and online (42.8 percent + 30.8 percent = 73.6 percent). The

next most utilized option is Internet surfing, on which the respondents spend about 1.75 hours daily followed by reading (M= 1.54), chatting/messaging (M = 1.45), watching television (M = 1.33), and listening to radio (M = 1.22). Among all the listed activities, listening to the radio emerged as the least preferred activity of females 80.4 percent of them spent less than one hour. Minute observation of analysis results also revealed the higher indulgence of females in digital media-based activities as compared to traditional media-based activities. The results, thus, supported the first hypothesis.

Type of Activity	*Low Consumption*	*Moderate Consumption*	*High Consumption*	*Mean (SD)*
	0 to 1 hour (%)	*1 to 3 hours (%)*	*3 to 5 hours (%)*	
Digital Media Based				
Studying/working (online)	24.8	43.1	32.1	2.07 (0.75)
Surfing Internet	42.6	39.7	17.8	1.75 (0.74)
Chatting/messaging on phone	62.9	29.2	7.8	1.45 (0.64)
Traditional Media Based				
Studying/working (offline)	26.4	42.8	30.8	2.04 (0.76)
Reading (books/magazines/newspapers)	53.0	39.2	7.3	1.54 (0.63)
Television viewing	70.0	26.6	3.4	1.33 (0.54)
Listening to Radio	80.4	17.5	2.1	1.22 (0.46)

Analysis of data reveals that out of the five media options (Internet, magazines, newspapers, radio, television), the Internet is the most preferred media, whereas radio is the least preferred media used by the respondents across the three types of activities. Within the activities, the use of the Internet is most popular for work-related information (4.5 percent), non-food shopping (94.3 percent), food shopping (88.8 percent), travel and tour-related information (86.7 percent), and information on health issues (80.4 percent) followed by rest of the activities. Television is the next most preferred media option by respondents for entertainment (33.4 percent), news/current events (24.5 percent), and weather forecast (17.8 percent) followed by newspapers for news/current events (18.0 percent), magazines for entertainment (12.0 percent), and radio for health issues (4.4 percent). The results (Table 2) thus confirmed the assertion made in the second hypothesis.

Table 2: Factor analysis of media choice across activities

Type of Activity	***Factor Loading*** [a]	***Internet***	***Magazines***	***Newspapers***	***Radio***	***Television***
		%	*%*	*%*	*%*	*%*
Factor 1- Consumption						
New products' information	.75	88.0	1.8	4.7	1.0	4.4
Food shopping	.75	88.8	6.0	2.3	1.0	1.8
Non-food shopping	.63	94.3	3.4	0.5	0.5	1.3
Factor 2 - Entertainment	.78	52.5	12.0	1.3	0.8	33.4
Factor 3 - Information						
News/current events	.81	44.4	11.2	18.0	1.8	24.5
Weather forecast	.67	66.8	6.5	7.6	1.3	17.8
Travel and tour	.54	86.7	7.0	3.4	1.0	1.8
Work related	.45	94.5	2.9	1.8	0.5	0.3
Health Issues	.43	80.4	5.7	6.0	4.4	3.4

[a] – Extraction Method: Principal Component; Rotation Method: Varimax with Kaiser Normalization; Eigen Value > 1.

The third hypothesis (H3) proposed that females' frequency of the Internet consumption varies across the activities undertaken. To this end, twelve activities were identified under three headings (consumption, entertainment, and information activities) for which the Internet may be used by the respondents, most frequently daily. The respective data were collected using a 5-point scale (Table 3). The mean Internet usage scores as enlisted in Table 3 are different from each other and the majority of them are well above the scale mid value (2.5) indicating that the frequency of Internet usage varies across activities. The mean scores also indicate that usage of the Internet is more popular for informative purposes than for consumption and entertainment in this order. Rankings were assigned to the listed activities based on mean usage scores. As per these rankings, the usage of the Internet is highest for gathering health-related information (M = 3.96; Rank = I) and the least for making friends (M = 2.07; Rank = XII). For statistical verification, one sample t-test was applied by taking 2.5 (scale mid-value) as the test value. All the t-values were found to be significant at p <.001, and P < .05 leading to the acceptance of H3.

Table 3: Internet Usage: t-test

Type of activity	Mean (SD)[1]	Ranking[2]	Mean Difference[3]	*t*-value	Sig.
Consumption					
Products' information	2.66 (1.39)	X	0.16	2.30	.022*
Food shopping	3.35 (1.32)	V	0.85	12.62	.000**
Non-food shopping	2.69 (1.23)	IX	0.19	3.10	.002*
Entertainment					
Watching movies/shows	3.14 (1.29)	VI	0.64	9.67	.000**
Listening Music	3.13 (1.32)	VII	0.83	12.07	.000**
Playing Games	2.20 (1.35)	XI	-0.30	-4.33	.000**
Making friends	2.07 (1.28)	XII	-0.43	-6.59	.000**
Information					
Weather	3.42 (1.13)	IV	0.92	15.98	.000**
Travel and tour	3.01 (1.38)	VIII	0.51	7.28	.000*
Work/studies related	3.68 (1.27)	III	1.18	19.32	.000**
Health Issues	3.96 (1.12)	I	1.46	25.51	.000**
Further education	3.74 (1.19)	II	1.24	18.16	.000**

Notes: 1. Five point scale (1= never, 5 = always)
2. Ranking is based on mean scores
3. Mean difference = Mean Scores – Scale Mid value (2.5)
4. * $p < 0.05$, ** $p < 0.001$

CONCLUSIONS

The study focused on examining the media consumption behaviour of Indian females in terms of why, what, when, and how they consume different media options (traditional and digital). This understanding will guide the stakeholders to work collectively in the direction of taking measures to strengthen females' overall well-being, access to affordable and quality health care, educational opportunities, empowerment, decision-making skills, development, and social status by effectively including their media consumption behaviour. The mean usage scores for traditional and digital media revealed that females use both traditional and digital media mostly for their studies/official work. Among all the listed activities, listening to the radio emerged as the least preferred activity of females. As expected, the analysis results also revealed the

higher indulgence of females in digital media-based activities as compared to traditional media-based activities.

Study results also revealed that females' most preferred media choice varies across the nine activities that have been chosen for this study. Here also out of the five media options, i.e., Internet, magazine, newspapers, radio, and television, the Internet emerged as the most preferred media option. The most favored reason behind the popularity of the Internet is the speed, secrecy, authenticity, multiple available websites, sources, and options, at which information and insights can be derived apart from the sophistication of actions that can be created to provide compelling virtual product experiences. Via Internet, companies can launch products faster, reach consumers synchronously across demographically segmented beneficiaries, test content in real-time, and respond to the needs, doubts, and requirements of users in a fraction of the time.

Government organizations can make good use of the Internet to spread important messages to families by targeting females by making websites more useful, attractive, and interactive. The digital revolution added to the venues in which marketers can attract increasingly female consumers. The girls also face various kinds of discrimination as well in accessing nutrition, education, employment opportunities, and health services. Sometimes they are forced to marry at a very young age, have a pregnancy, have unsafe abortions, and have childbearing thereby posing grave health issues. For this, the girls from a very young age may be provided with proper and timely sexual and reproductive health information that too with due protection to their right to privacy, confidentiality, and respect.

The governments at various levels may develop strategies and policies to promote and support women's education, awareness regarding various government schemes, microcredit facilities, small-scale industries, and full and equal participation in economic development. Women must be encouraged to contribute actively to creating content for females which may help them in becoming more empowered. The governments may also promote the balanced, and empowered portrayals of females by the media which may lead to better female participation in the workforce, production, and decision-making. Females may be given training to make use of the available information, risks of cyberbullying and fraud, authenticity and accuracy of available information, etc.

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Book Review

Book Name: ***Contagious: Why Things Catch On***

Reviewed by:
Dr. Ansari Sarwar Alam,
Assistant Professor,
Department of Marketing,
Universal Business School,
Karjat, Raigad, Maharashtra- 410201
Email: sarwar.ansariamu@gmail.com

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Contagious: Why Things Catch On book talks about the science to know why some ideas, goods, behaviours and videos become popular and spread quickly. It is a must-read book for those who are interested in marketing and psychology. The concept of this book is well connected to the basic psychological principle like social influence, and persuasion. The book was praised by Authors like Charles Duhigg, and Chip Heath. The book started with a question that why things become viral or contagious, and the concept of viral or contagious were well explained by the author.

The author argues with the reasons that the following are the factors which make a product or video viral (STEPPS).

1. Social currency- the share things which look goods
2. Triggers- Top of mind, Tip of Tongue
3. Emotion- When we care, we share.
4. Public- built to show, built to grow.
5. practical value- News you can use.
6. Stories- information that travels under the guise of idle chatter.

The book also goes into the impact that word-of-mouth, networks, and social media play in the dissemination of ideas, and offers practical advice on how to make information more infectious.

Jonah Berger includes real-world examples to help readers comprehend and apply these ideas to their own marketing and communication initiatives. Overall, the book is well-written and simple to read, and it offers significant ideas for anybody trying to generate viral material.

Berger investigates why individuals accept and promote ideas, goods, and behaviours that make them seem good, are easy to recall, or elicit powerful emotions. In addition, the book examines case studies of successful viral marketing and assesses what made them successful.

Altogether, Contagious needs to be read in general for anyone who is curious in knowing that why things got viral and how to develop material that will spread rapidly. The author's thoughts are founded on detailed investigation, and the same can be applied to a variety of sectors, including marketing, advertising, and communications. While the book's significant impact, it does have some limitations, such as the fact that few examples were extremely ancient, and as a person from a South Asian nation, it was difficult to link with some examples, and there are some errors, such as unneeded spaces after paragraphs.

Author: Jonah Berger
Publisher: Simon & Schuster

Submission Guidelines

Submission and Overall Format

The manuscript should have a Title Page, Abstract with Key Words, Introduction, Material and Method, Results and Discussions, Conclusions and Acknowledgment followed by references.

- Manuscript length should be between 4000-5000 words including figures and tables, typed in double – space and printed in 12 point Times New Roman font on 8.5" x 11" (A-4) size paper with 1.5 inch margin on all four sides. All pages should be numbered consecutively.

- The cover page should contain title of the paper, name of the author(s), official address, contact address, phone number and e-mail address.

- Papers are processed through a blind referral system by experts in the subject areas. To ensure anonymity, the writer's name, designation and other details should appear only on the first page along with the title of the paper and should not be repeated anywhere else.

- Abstract of not more than 200 words outlining the purpose and scope of the paper in a single paragraph should be submitted. The abstract should explain why the reader should consider these results important. Key words are to be mentioned at the end of the abstract.

- Number (in Roman Letters) and caption all exhibits, charts and tables. The number of tables and figures should be kept to essentials, recommended number is 2- 3.Sources of the data should be given below each table.

Content Guidelines

- Use British spellings (rather than American): universal "z" in 'ize' and 'ization' words.
- Use 'twentieth century', '1980'. Spell out numbers from one to nine, 10 and above to remain in figures. However, for exact measurements use only figures (3km, nine per cent not %). Use thousands and millions (e.g., not lakhs and crores)
- Use single quotes throughout. Double quotes only to be used within single quotes. Spellings of words in quotations should not be changed.
- Quotations of 45 words or more should be separated from the text and indented with one space with a line space above and below.
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New Delhi Institute of Management
61, Tughlakabad Institutional Area, Near Batra Hospital
New Delhi – 110062
Ph. 011-29962605
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