

**Research Article**
**Open Access**

## Unlocking Educational Excellence: A Digital Transformation Approach through Business Process Optimization and the Role of Agile Project Management to Overcome Barriers to Successful Transformation

Sunil Chahal

Concepts Information Technology Inc, India

### ABSTRACT

Through optimization, these processes get high-efficiency outcomes, cost reduction as well and overall quality. The optimization process is often integrated into analysing and collecting information that can be related to the different aspects of education. Data-driven can enable institutions to make informed decisions, improve areas as well and adjust strategies for making better alignment with the needs and achievement trends of students. This optimization approach can ensure institutions meet requirements efficiently and reduce the non-compliance risks as well as associated consequences. Implementation of digitalization involves task automation and streamlining tasks. In India, this can be accelerated by the adaptation of digital platforms and tools that can enhance access to education, especially across unreserved or remote areas. Streamlining tasks of administration by optimization allows teachers to focus on teaching including research.

### \*Corresponding authors

Sunil Chahal, Concepts Information Technology Inc, India. Tel No: 571-789-9678.

**Received:** September 27, 2022; **Accepted:** October 03, 2023; **Published:** October 10, 2023

**Keywords:** Agile Project Management, Business, Performance, Administration, Education, Digital Transformation, Optimization Process

### Introduction

The adaptation rate of digital technologies has increased by educational institutions to enhance education quality. This process involves integrating technologies within multiple aspects of education like learning, teaching, communication, or administration. On the other side “business process optimization” is the process of systematic review and improvement or modification of the existing process. In the case of the area of education, this involves streamlining and assessing administrative processes, student enrolment, and assessment including other activities. The aim of this research is to the impact of digital transformation by using business process optimization as well as agile project management to overcome barriers in unlocking educational excellence [1-3].

A survey was done in 2021, on the opinion of teachers using video-sharing apps like Edtech in selected rural areas. An equal share of government teachers had their own opinion that classroom teaching is important for at least children in primary schools. There are only 21% of teachers agreed with recording classes and giving students access to use mobile phones [4].

### Objectives

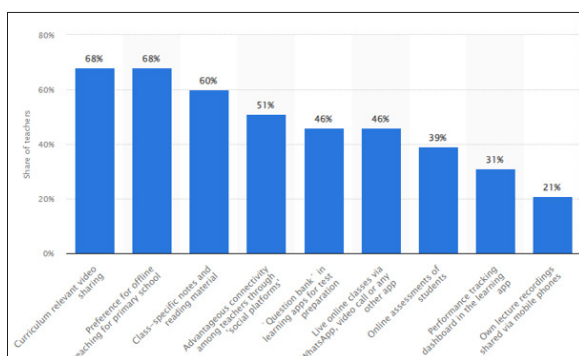
- To evaluate the concept of using digital technologies to unlock educational excellence across India
- To identify the impact of business process optimization in the educational area in India
- To determine the role of agile project management in the unlocking educational excellence of India

### Literature/Background Survey

#### Digitalization and the Current Context of Educational Excellence in India

Indian education framework has received multiple creative aptitudes for arriving at the destination as well as making reformist methodology to the problem related to the phenomenon. The cycle of digitalization across the educational field has been developing across India. Innovation and science are already developed by learners of GenNesxt. Computerized tools have been widely being utilised for upgrading arrangements within the Indian education aspects in rural areas [5,6].

In addition, it was noticed that with the growth of the technology the diversity in the education system have increased. According to Statista the three is a prominent global position of Indian education system. India have the largest network of institution

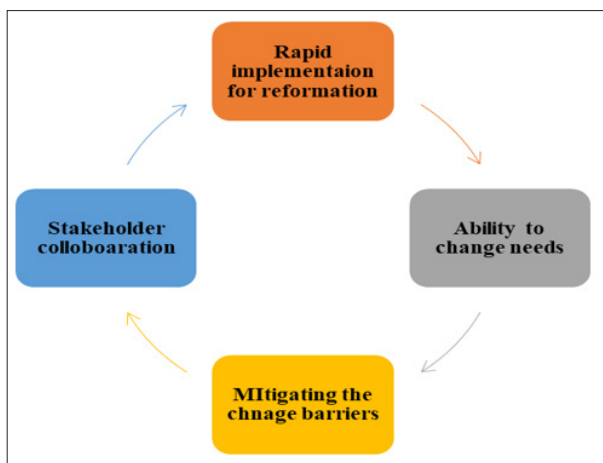


**Figure 1:** Opinion of the Government School Teachers on Learning by using Digital Technology in India

that are associated with higher learnings. Estimated value of Indian education system is around 117 billion UDS and it is projected to become of 225 billion USD till 2025. In addition, by 2031 an approximate of 30 billion USD market is estimated. Thus, the possibility of can be contemplated from the statics. Secondary schools have a significant role in the education systems of India. There are 1,50,452 secondary schools in India according to the data of 2022. There is a decrease in the total number of schools in India, however, surprisingly, the number of secondary and higher secondary schools are rising. According to the government data the total number of higher secondary schools in 2014 was 86261 which in 2022 is at 1,42,398. The digital technology is mostly implemented in the secondary and higher secondary schools therefore such growth can be possible outcome of digital technology [7].

In the year 2020, there were 1.5 million developed new positions in the digitized aspect over the globe. Today, there is 90% of the associations at present have an IT aptitude deficiency whereas 75% of students and teachers feel there can be a gap within their capacity to meet the abilities requirements of the IT workforce. There is an assessment done by the World Economic Forum that 65% of kids who have been admitted to elementary school can wind up in occupations that do not exist today in India. In the case of the education sector to set up multiple abilities, to the required digital economy by the adjustment to the expanding aspects of IT aptitudes [8,9].

### Impact of the Agile Business Management



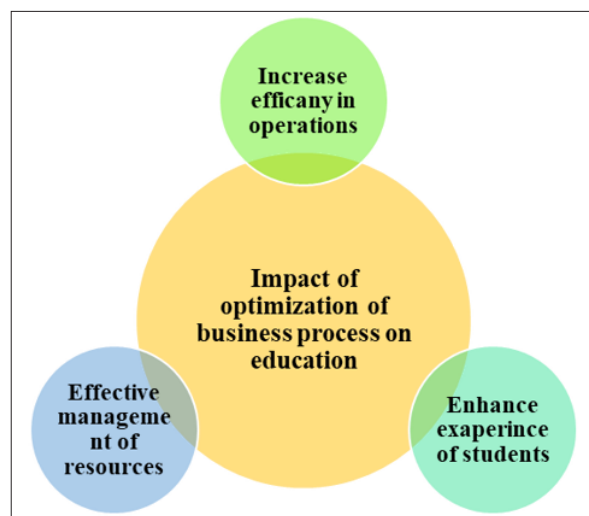
**Figure 2:** Impact of the Future Agile Project Development on the Educational Sector

The above figure depicts that the impact of agile project management is very substantial in assessing various advantages and disadvantages in the Indian educational sector. Agile project management has been affecting the education system across India. The education system of India needs to be reformed often to keep pace with the changing technological and social trends [10]. Agile management allows the rapid implementation of the reforms without bringing any disruption within the entire system.

This approach has its main focuses on adaptability as well as iterative development that can help the educational institution that tailors' approaches. This suits the specific needs of every student to ensure curriculum as well as teaching methods that can be effective and relevant. This method emphasizes collaboration

among different stakeholders including administrators, teachers, parents, and students. The agile approach can ensure integration of technology can be well-assigned with the educational goals. Any initiative related to the tech-related is carefully executed. This prevents misalignment or misuse of technology as well as maximizing the positive impact on learning [11].

### Optimization of Business Process and its Impact on Education



**Figure 3:** Impact of the Business Process Optimization

The above figure represents the impact of digital process optimization on the education sector of India. The optimizing process which is related to the services for students like enrolment, academic support, and counselling can increase the experience of students. Quicker responses within time and simplified procedures can contribute to a high level of satisfaction among students and guardians. The educational institution within India has been dealing for so long with complex tasks like course scheduling admission, fee collection as well and record keeping. This optimization approach can streamline these types of processes as well as reduce efforts manually, reducing errors and freeing up required resources. There are a few real-life examples of education institutions that have undertaken the process of digital transformation by using agile project management as well as optimization of business processes discussed [12,13].

### Methodology

This study has been done based on the secondary qualitative research structure. Previous articles have been selected to gather data. Therefore, a descriptive research design has been chosen for this study to describe the research objectives. This study focuses on the non-numerical data, images, and words in an analysis of collected data. Descriptive research design is one of the exploratory research designs. As this study has been done by using secondary qualitative research methods inductive research approach has been chosen. This research approach is more flexible than the research techniques as it allows researchers to modify research topics based on the gathered data. New concepts can be researched by the researcher that may not be done by any other researchers. Agile research methodology is more efficient for observing the performance of the management as this involves the project management approach that can be broken into various parts for continuous improvement and collaboration [14,15].

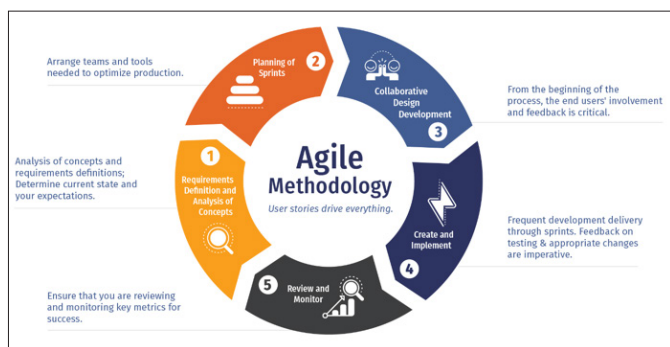


Figure 4: Agile Methodology

This analysis in the analysis the concept, planning, collaboration of the development of design, creation and implementation and others. Agile methodology in the education sector can have more focus on individual interactions, responding as well and stakeholder collaboration. There is a current trend related to the development of education laying qualities. Modern technologies have been developing at a high growth speed. However, the digital transformation of the educational process has turned into a strong developmental stage therefore it needs to be refined, and include additional and new elements as well as functions. This is also worth giving attention to the revision of the educational framework of modern legalisation across India [15,16].

### Results/Findings

In the digital age, the education landscape of the education is undergoing significant transformation as well as higher education in India. Integration of technologies with innovative strategies like pedagogical, colleges including universities within the entire nation has been reshaping experiences of learning as well as paving various ways for a more engaging and accessible educational journey. The digital journey of the education sector in India is getting benefits not only for students but also empowers teachers, and different faculties to serve quality education. Advanced methods of learning systems and management collaboration and system tools streamline administrative tasks, and this can enable educators more focused on increasing student engagement [16].

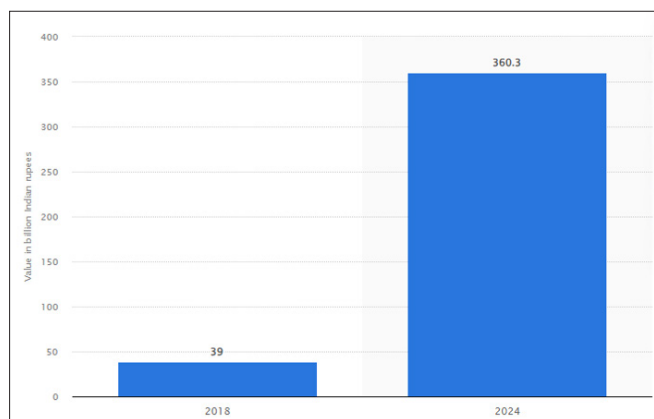


Figure 5: Value of the Online Market of Education Across India

After the COVID-19 pandemic situation, transitioning to the digital era in every sector has been rising. In the case of the higher education department, the difference is significant to the learning

process in online mode across India. Based on the above figure the online education market and its value is rising in the country which was estimated to rise to approximately 360 billion in 2024 from 39 billion Indian rupees in the year of 2018 [17].

Learning analysts and data analytic tools serve the valuable insights into the performance of every student and allow educators to provide personalized instruction. Apart from this, digital tools can enhance the effectiveness, and efficiency of teaching which can ultimately lead to better outcomes for students.

In addition. The technological advancement is motley adopted in the city that are technologically sound. Therefore, it can be contemplated that technology have a significant impact on the development of education. In following heat maps most of the tire 1 and tire 2 city are developed as the educational hub.

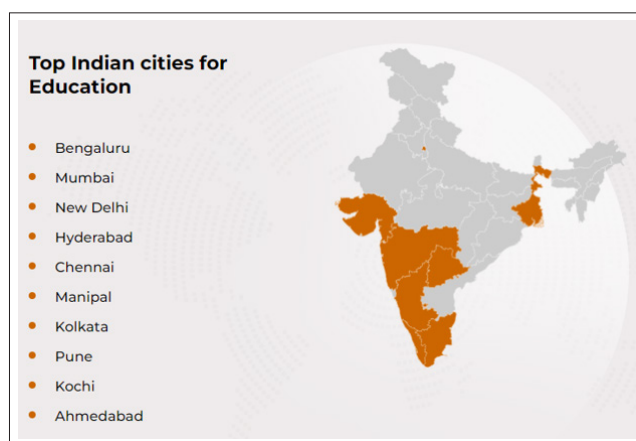


Figure 6: Heat Map of Education Top City in India

Mostly the statically data indicates that urbanisation and adaptation of technology have a co relation among them. Thus, with the development of technology education system are deeply impact.

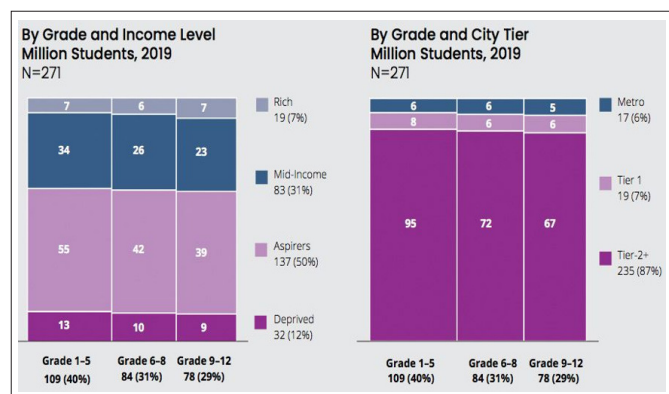
Schools	Total Schools
Rural Indian school	12.34 lakhs
Urban India schools	2.54 lakhs

In both the rural and urban areas of India, there are numerous schools. It can be seen in the above table that. According to the most recent UDISE+ data for 2021–22, there are 2,54,327 schools in urban India, compared to 12,34,788 in rural India [10]. Up to 2025, the Indian education system is expected to cost around 117 billion UDS and 225 billion USD. Additionally, a 30 billion USD industry is anticipated by 2031. Therefore, the possibility education sector in India can be estimated. Based on that it can be contemplated that there is a significant possibility of the Indian education business to grow in leaps and bounds [7].

### Discussion

The education sector of India holds a prominent position across the globe. India has the largest network of higher learning institutes with promising growth opportunities. The entire education sector has been estimated at a value of over 117 billion U.S. dollars. This is expected to grow up to 225 billion U.S. dollars by 2025 with the market of the ed- tech market estimated to hit approximately 30 billion U.S. dollars by 2023 [7].





**Figure 7:** Overall Student Population of India in Online Courses

The above figure depicts the total number of students in the online education sector can vary based on the socio-economic status of students. The above figure shows that there are 19% of students belong to the rich socio-economic status whereas 137 which is nearer 50% of participants are aspirers. The total population was 27 of which 83% of students belong to the mid-income level category. The effective implementation of the business processes the optimization within the education system of India. The institution needs to try to engage more of its stakeholders, including students, educators as well and parents. Apart from this, the educational institution needs to reconsider the impact of the challenges as well as diversity in the education sector of India and tailor the optimization efforts the suit various educational levels, cultural contexts, and regions [7].

On the other hand, from a business perspective, increased work satisfaction within the faculties because of digital transformation through agile management can result in better teaching. The emphasis on development prioritization in agile management, on the other hand, can assist educational institutions develop and allocate resources effectively. This can be important for a nation's ability to acquire resources and infrastructure for education. Moreover, technological resource can be used in an realistic manner that serves maximum benefit to the business and Indian education system. Agile methodology can introduce a cutting-edge strategy like a student-centered strategy to encourage students' active engagement, cooperation, and critical thinking. Higher engagement and improved information retention might result from this method.

### Future Research

This research can be helpful for further researchers as agile project management and business process optimization to determine the impact of digital transformation to measure educational excellence. Therefore, this research will be beneficial for further researchers to get structured data. Apart from this in case of future research researchers can use quantitative methods to get objective data from primary direct sources.

### Conclusion

The whole world is becoming digital which is more crucial to higher education to equip students with skills and knowledge that is an important requirement for the workforce of the future. The digital transformation by using the optimization process and the agile approach can nurture critical thinking, digital literacy, collaboration various skills, and problem-solving within students. With the integration of technology within the administrative or the school curriculum, students can get practical knowledge

experiences, and adaptability to prepare them for the different dynamic demands of the digital era. It was found that, Integration of agile management introduces the advanced management principles within the education system of India that require extra careful training, planning as well and cultural alignment. While this management or methodology offers numerous advantages, this can be suitable for dealing with unique challenges as well as opportunities within the educational sector [18-20].

### References

1. Adedoyin OB (2020) Qualitative research methods. *Principles of Social Psychiatry* 77-87.
2. Abad-Segura E, González-Zamar MD, Infante-Moro JC, Ruipérez García G (2020) Sustainable management of digital transformation in higher education: Global research trends. *Sustainability* 12: 2107.
3. Benavides LMC, Tamayo Arias JA, Arango Serna MD, Branch Bedoya JW, Burgos D (2020) Digital transformation in higher education institutions: A systematic literature review. *Sensors* 20: 3291.
4. <https://www.ibef.org/industry/education-sector-india>.
5. Jena PK (2020) Online learning during lockdown period for covid-19 in India. *International Journal of Multidisciplinary Educational Research* 9: 82-92.
6. Correani A, De Massis A, Frattini F, Petruzzelli AM, Natalicchio A (2020) Implementing a digital strategy: Learning from the experience of three digital transformation projects. *California Management Review* 62: 37-56.
7. <https://www.statista.com/topics/6146/education-in-india/#topicOverview>.
8. Dutta G, Kumar R, Sindhvani R, Singh RK (2020) Digital transformation priorities of India's discrete manufacturing SMEs—a conceptual study in perspective of Industry 4.0. *Competitiveness Review. An International Business Journal* 30: 289-314.
9. Sardana A, Sharma VK (2023) Agile framework adaptation issues in various sectors. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/9781119896838.ch2>.
10. <https://www.indiatoday.in/education-today/featurephilia/story/embracing-the-digital-revolution-transforming-higher-education-in-india-2408069-2023-07-18>.
11. Hughes K, Tarrant A (2019) Qualitative secondary analysis. <https://in.sagepub.com/en-in/sas/qualitative-secondary-analysis/book260797#author-s----editor-s->.
12. Kurniawan R, Budiastuti D, Hamsal M, Kosasih W (2020) The impact of balanced agile project management on firm performance: the mediating role of market orientation and strategic agility. *Review of International Business and Strategy* 30: 457-490.
13. López-Alcarria A, Olivares-Vicente A, Poza-Vilches F (2019) A systematic review of the use of agile methodologies in education to foster sustainability competencies. *Sustainability* 11: 2915.
14. Maity S, Sahu TN, Sen N (2021) Panoramic view of digital education in COVID-19: A new explored avenue. *Review of Education* 9: 405-423.
15. Majeed I (2019) Understanding positivism in social research: A research paradigm of inductive logic of inquiry. *International Journal of Research in Social Sciences* 9: 118-125.
16. Proudfoot K (2023) Inductive/Deductive hybrid thematic analysis in mixed methods research. *Journal of Mixed Methods Research* 17: 308-326.
17. Sahi PK, Mishra D, Singh T (2020) Medical education amid the COVID-19 pandemic. *Indian paediatrics* 57: 652-657.

- 
18. World Health Organization (2022) Towards a global guidance framework for the responsible use of life sciences: summary report of consultations on the principles, gaps and challenges of biorisk management. <https://apps.who.int/iris/bitstream/handle/10665/354600/WHO-SCI-RFH-2022.01-eng.pdf>.
  19. Zasa FP, Patrucco A, Pellizzoni E (2020) Managing the hybrid organization: How can agile and traditional project management coexist? *Research-Technology Management* 64: 54-63.
  20. Gaborov M, Karuović D, Kavalić M, Radosav D, Milosavljev D, et al. (2021) Comparative analysis of agile and traditional methodologies in IT project management. *Journal of Applied Technical and Educational Sciences* 11: 1-24.

**Copyright:** ©2023 Sunil Chahal. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.