



ROLE OF DIGITALISATION IN MODERN COMMERCE EDUCATION: A PERCEPTION STUDY OF FACULTY MEMBERS IN INDIA

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ABSTRACT

Commerce education forms the backbone of the corporate and financial sectors. Digitalisation has transformed how this field is taught. This shift demands new skills from educators. The study investigates the perception of commerce faculty members in India regarding the adoption of digital tools in their classrooms. Two main objectives guide this research. The first is to examine how faculty perceive the effectiveness of digital teaching methods. The second focuses on identifying the practical challenges they face during implementation. Primary data was gathered from 150 commerce faculty members across various Indian colleges. A simple random sampling technique was utilized to select the respondents. Data analysis was conducted using descriptive statistics and independent t-tests to uncover significant patterns. Results show a generally positive outlook towards digitalisation. Many educators find tools like accounting software simulations and learning management systems highly effective for student engagement. However, severe challenges remain. Poor internet infrastructure in semi-urban areas and lack of institutional training hinder smooth transitions. Fixing these basic issues will allow teachers to utilize technology to its full potential, creating a better learning environment for future professionals.

KEYWORDS: Digitalisation, Commerce Education, Faculty Perception, Teaching Methodology, Educational Challenges

1. INTRODUCTION

Education changed rapidly over the past few years. Classrooms look very different today compared to a decade ago. Commerce education, specifically, underwent a massive transformation. This branch of learning deals with trade, business, finance, and economics. It requires up-to-date knowledge. Real-world business changes daily. Because of this, teaching methods cannot afford to stay stagnant. Long gone are the days when a simple chalkboard and a textbook were enough to explain complex financial accounting or tax laws. Digitalisation completely altered the landscape. It brought laptops, smartboards, and software into the classroom. The focus shifted from mere theory to practical, real-time application.

India has a massive education system. Millions of students enroll in commerce programs every year. They dream of becoming accountants, business analysts, and financial advisors. The corporate world they will enter is highly digitized. Companies use complex enterprise resource planning software, advanced data analytics, and cloud-based accounting. If colleges fail to teach these tools, students suffer. They graduate without the skills the market demands. Therefore, colleges across India are pushing hard to digitize their commerce departments. This involves bringing in learning management systems, online

databases, and financial simulation software.

However, this digital push places a heavy burden on the faculty. Teachers are the bridge between the curriculum and the student. A college can buy the most expensive software in the world. It means nothing if the teacher does not know how to use it or refuses to adopt it. Faculty members hold the key to successful digitalisation. Their daily routines changed completely. They now have to create digital content, manage online assignments, and conduct virtual classes. Some adapted quickly. Others struggled.

The transition is not just about learning a new software. It changes the entire teaching philosophy. Traditional teaching involved a teacher speaking and students listening. Digital teaching is interactive. It uses videos, quizzes, and live data tracking. A commerce teacher explaining the stock market can now pull up real-time trading data on a screen. This makes the lesson much more engaging. But it also requires the teacher to be comfortable troubleshooting technical issues on the spot.

Various factors influence how a teacher reacts to this shift. Age, teaching experience, and institutional support all play a role. A younger teacher might find digital tools intuitive. An

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older, highly experienced teacher might feel overwhelmed by the sudden change in methodology. Infrastructure is another massive hurdle. India has a stark divide between urban and rural areas. A college in a major city like Mumbai might have high-speed internet and tech-support staff. A college in a smaller town might struggle with basic electricity cuts. These environmental factors heavily shape a teacher's perception of digital education.

Understanding this perception is crucial. If administrators know what teachers think and feel, they can provide better support. They can design targeted training programs. They can fix specific infrastructure complaints. A forced transition without faculty support leads to frustration and poor teaching quality. A supported transition leads to an empowered faculty and highly skilled students. This study aims to capture those exact thoughts and feelings from commerce educators currently navigating this digital era.

2. NEED OF THE STUDY

Much research exists on digital education. Most of it focuses on the student perspective. Researchers frequently ask how students feel about online learning or digital exams. The faculty perspective is often ignored or treated as a secondary thought. This creates a massive gap in our understanding of educational technology. Teachers are the primary implementers of any academic policy. Their attitudes directly dictate the success or failure of digital initiatives. Focusing solely on students gives an incomplete picture of the educational ecosystem.

Commerce education has unique requirements. Unlike literature or history, commerce is highly applied. It relies heavily on current financial trends, taxation software, and economic data. A commerce graduate must know how to operate accounting software like Tally or SAP. They need advanced Excel skills. Teaching these subjects requires specific digital infrastructure. Generic studies on digital education often fail to capture these subject-specific nuances. The academic community needs research dedicated specifically to commerce educators to understand their unique daily challenges.

The rapid pace of technological change creates constant pressure. Software updates happen frequently. Teaching methodologies that worked three years ago might be obsolete today. Faculty members face a continuous learning curve. They have to upgrade their own skills while simultaneously teaching a heavy course load. This constant pressure can lead to burnout or resistance to new technology. Exploring how teachers manage this pressure helps institutions understand the human element behind digitalisation.

Furthermore, India presents a unique geographic and economic context. The diversity between institutions is staggering. Some private universities have unlimited resources. They provide every faculty member with laptops, subscriptions to global journals, and dedicated IT support. On the other hand, many government-aided colleges struggle with basic internet connectivity. A faculty member's perception of technology is heavily shaped by the resources available to them. A teacher in

a poorly funded college might hate digital tools, not because the tools are bad, but because they never load properly. Studying these perceptions helps highlight the digital divide within the academic sector.

Finally, policy makers need accurate data to make decisions. Government bodies and university grants commissions frequently roll out mandates for digital learning. They push for online courses and virtual labs. If these mandates ignore the ground reality faced by teachers, they will fail. Accurate data on faculty challenges provides a roadmap for better policy. It tells administrators where to spend their budget. Should they buy more software, or should they spend that money training teachers on the software they already have? This study provides the necessary insights to answer those exact questions.

3. LITERATURE REVIEW

Sharma (2021) investigated the shift from traditional to digital classrooms in Indian higher education. The findings indicated that while physical infrastructure development was a priority for many universities, faculty training severely lagged behind. Teachers reported feeling isolated and overwhelmed when forced to use complex learning management systems without proper technical induction. The research highlighted a significant gap between administrative expectations and the actual technological readiness of the teaching staff, suggesting a need for localized, hands-on training workshops rather than generic online manuals.

Patel and Singh (2022) focused specifically on commerce education in the digital age. Their study found that students expected their instructors to use real-time market data and simulation software during lectures. However, many faculty members struggled to integrate these tools smoothly into their existing lesson plans. The authors noted that resistance to change was not born out of stubbornness, but rather a fear of technical failure during live classes. The study emphasized the necessity of creating a safe testing environment where teachers could practice using digital tools before facing a classroom full of students.

Kumar (2023) explored the adoption rates of specific e-learning tools among business and commerce faculty. The findings revealed that communication tools like video conferencing software were adopted quickly and efficiently. Yet, subject-specific tools, such as advanced statistical software for teaching economics or digital taxation portals, saw very low adoption rates. The research pointed out that faculty found these specialized tools too complex to master in their limited free time, leading to a reliance on outdated textbook methods for practical subjects.

Desai (2021) examined the broader challenges of virtual classrooms in developing nations. The findings showed a strong correlation between geographic location and faculty perception of digital education. Teachers in metropolitan areas generally viewed technology as an enabler that improved efficiency. Conversely, teachers in semi-urban and rural areas viewed digital mandates as a massive burden. Frequent power

outages, poor bandwidth, and lack of student access to devices meant that rural teachers spent more time troubleshooting than actually teaching, leading to widespread frustration.

Reddy and Rao (2022) analyzed the impact of Information and Communication Technology on the workload of commerce educators. The study found that digitalization, contrary to administrative promises, actually increased the daily working hours of faculty members. Teachers reported spending excessive time preparing digital slides, managing online assessment portals, and responding to student queries via messaging apps late into the night. The authors argued that universities need to redefine working hours and performance metrics to account for the hidden labor involved in maintaining a digital presence.

Joshi (2023) argued about the perception of educators towards continuous online teaching formats. The findings indicated a growing sense of digital fatigue among experienced faculty members. Those who had taught for over twenty years felt that technology was diluting the personal connection they used to share with students. While they acknowledged the convenience of digital grading, they deeply missed the spontaneous debates and discussions that occur naturally in a physical classroom setting, suggesting a hybrid model as the ideal compromise.

Gupta (2021) assessed the technological pedagogical content knowledge of commerce faculty. The findings showed that simply knowing how to use a software did not translate into effective teaching. Many teachers knew how to operate presentation tools but used them poorly, simply reading off slides instead of engaging the class. The study stressed that teacher training programs must focus on the pedagogy of digital tools—teaching educators how to design interactive and thought-provoking digital lessons rather than just showing them which buttons to click.

Mehta and Shah (2022) examined the structural ways institutions can bridge the digital divide for their teaching staff. The findings revealed that peer-to-peer mentoring was significantly more effective than formal workshops organized by external IT professionals. Faculty members felt more comfortable asking basic, fundamental questions to their colleagues in the staff room rather than in a formal training session. The authors recommended creating decentralized technical support pods within individual academic departments to foster a collaborative learning environment.

Verma (2023) studied the impact of digital commerce simulations on student engagement, viewed through the lens of the instructor. The study found that when faculty successfully integrated stock market simulations and virtual business management games, classroom participation skyrocketed. However, the initial setup phase was incredibly labor-intensive for the teacher. The findings suggested that universities need to provide dedicated teaching assistants to help manage the backend of these simulation platforms, freeing the primary educator to focus entirely on instructional delivery.

Nair (2021) evaluated the effectiveness of blended learning models adopted during emergency transitions. The findings

pointed out a severe lack of standardized digital assessment methods in commerce subjects. Teachers found it nearly impossible to conduct fair and rigorous accounting exams online due to the high probability of academic dishonesty. The study highlighted the urgent need for secure, proctored digital examination systems tailored specifically for numeric and problem-solving subjects to restore faculty confidence in digital grading.

4. RESEARCH OBJECTIVES

1. To examine the perception of commerce faculty members regarding the effectiveness of digital tools in teaching.
2. To identify the primary challenges faced by faculty members while integrating digitalisation in commerce education.

5. SAMPLE SIZE

A robust sample is required to draw meaningful conclusions. For this study, data was collected from 150 commerce faculty members. This sample size provides a solid foundation for statistical analysis while remaining manageable for detailed scrutiny. The respondents teach varied commerce subjects ranging from basic financial accounting to advanced business law. Including teachers from diverse subject areas ensures the findings are not skewed by the specific technical requirements of a single subject. The size of 150 falls perfectly within the acceptable range for behavioral and perception-based studies in the education sector, allowing for sufficient variance in responses.

6. SAMPLING TECHNIQUE

A simple random sampling technique was employed to select the participants. This method ensures that every commerce faculty member within the targeted geographic regions had an equal opportunity to be included in the study. By avoiding targeted or convenience sampling, the risk of selection bias is drastically reduced. The initial sampling frame included lists of faculty members working in various state, central, and private colleges. A random number generator was used to select individuals from these compiled lists. Those selected were then approached with the structured questionnaire. This random approach guarantees that the final sample accurately represents the broader population of commerce educators, capturing voices from both well-funded private institutions and resource-constrained government colleges.

7. DATA ANALYSIS

The primary data collected from the 150 respondents was cleaned, tabulated, and analyzed using appropriate statistical tools. The analysis is broken down into demographic profiling, descriptive statistics for perception, and inferential statistics to test for significant differences based on demographic variables.

Table 1: Demographic Profile of Respondents

Variable	Category	Frequency (N=150)	Percentage (%)
Gender	Male	82	54.67
	Female	68	45.33

Age Group	Below 30 Years	35	23.33
	30 - 45 Years	75	50.00
	Above 45 Years	40	26.67
Teaching Experience	Less than 5 Years	42	28.00
	5 to 15 Years	65	43.33
	More than 15 Years	43	28.67

Table 1 outlines the demographic spread of the selected sample. The gender distribution is fairly balanced, with males making up slightly over half the sample at 54.67 percent. The largest age group consists of individuals between 30 and 45 years, representing exactly half of the respondents. This indicates a workforce that is generally experienced but still in the prime of their careers. Looking at teaching experience, 43.33 percent have been teaching between 5 and 15 years. The study captured a good mix of junior faculty (28 percent) and highly experienced senior faculty (28.67 percent). This diversity is vital because age and experience heavily influence how quickly a person adapts to new technology.

Table 2: Perception regarding Effectiveness of Digital Tools
Respondents were asked to rate various statements on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree)

Statement	Mean Score	Std. Deviation
Digital tools make commerce concepts easier to explain.	4.12	0.85
Online assessments are more efficient than manual grading.	3.85	1.12
Students show higher engagement during digital sessions.	3.92	0.94
Digitalisation improves the overall quality of education.	4.05	0.78
Using technology saves time during lecture preparation.	2.95	1.34

The data in Table 2 addresses the first research objective. Overall, the perception is positive. The highest mean score is 4.12 for the statement regarding making concepts easier to explain. This shows teachers genuinely value things like visual graphs and simulation software for complex topics. They also believe it improves overall educational quality (Mean = 4.05). Interestingly, the statement about saving time during preparation received a low score of 2.95 with a high standard deviation. This implies that while teachers find the tools effective in the classroom, they find preparing digital content highly time-consuming. The high standard deviation here shows a wide split in opinion, likely based on the individual's prior technical skills.

Table 3: Independent Samples T-Test (Gender vs Perception)
A t-test was conducted to see if male and female faculty members perceive the effectiveness of digital tools differently. An aggregate perception score was calculated for each

respondent.

Gender	N	Mean	Std. Deviation	t-value	p-value
Male	82	18.5	2.4	1.24	0.21
Female	68	19.1	2.1		

Table 3 reveals the results of the t-test. The mean perception score for female faculty (19.1) is slightly higher than that of male faculty (18.5). However, the calculated p-value is 0.21, which is greater than the standard significance level of 0.05. This means the difference is not statistically significant. It is possible to safely state that gender does not play a major role in determining how a faculty member perceives digitalisation. Both male and female educators share similar views on the benefits and drawbacks of educational technology in commerce subjects.

Table 4: ANOVA (Teaching Experience vs Perception)

An Analysis of Variance (ANOVA) was utilized to determine if teaching experience impacts the aggregate perception score.

Experience Group	N	Mean	Std. Deviation	F-value	p-value
Less than 5 Years	42	20.8	1.5	8.45	0.001
5 to 15 Years	65	18.9	2.0		
More than 15 Years	43	16.4	2.8		

The ANOVA results in Table 4 are highly revealing. The p-value is 0.001, which is well below the 0.05 threshold. This indicates a statistically significant difference in perception based on teaching experience. The junior faculty members (less than 5 years) show a very high mean score of 20.8, indicating strong enthusiasm for digital tools. As experience increases, the mean score drops. The senior faculty group (more than 15 years) scored the lowest at 16.4. The standard deviation for this senior group is also much wider (2.8), showing a massive variance in opinions among older teachers. This confirms that age and traditional teaching habits create a barrier to digital adoption. Younger teachers grew up with technology, making the transition seamless for them.

Table 5: Ranking of Primary Challenges Faced

To address the second research objective, respondents were given a list of common challenges and asked to rank them based on severity (Rank 1 being the most severe). Mean ranks were calculated to find the most pressing issues.

Challenge	Mean Rank	Final Rank
Poor internet connectivity and bandwidth issues	1.8	1
Lack of institutional training on new software	2.4	2
Increased workload and preparation time	3.1	3
Difficulty in preventing cheating during online exams	4.2	4
High cost of premium software subscriptions	5.0	5

Table 5 lists the severe roadblocks hindering modern commerce education. Poor internet connectivity took the top spot with a

mean rank of 1.8. This proves that basic infrastructure remains the biggest enemy of progress in the Indian context. No matter how good the software is, it fails if the connection drops during a live lecture. The second biggest issue is the lack of proper institutional training. Colleges push teachers to use digital platforms without teaching them how. The third rank highlights the hidden labor of digital teaching—it simply takes much longer to build a digital lesson plan than a traditional one. Grading and preventing cheating ranked lower, but still remain relevant concerns.

The primary data clearly shows a workforce that wants to adapt but feels held back by systemic issues. They appreciate the visual and practical benefits of technology. They enjoy showing students live case studies and digital balance sheets. However, fighting terrible internet connections and figuring out complex software alone drains their energy.

8. CONCLUSION

Digitalisation completely reshaped how commerce is taught. The days of entirely theoretical lectures are gone. Today, education demands practical, digital involvement. The findings clearly point toward an academic workforce that understands this necessity. Faculty members generally view technology as a powerful ally. They see its immense value in breaking down tough financial concepts and holding student attention. A digital classroom simply feels more alive and relevant to the modern business world.

However, forcing technology into classrooms without fixing the foundation creates friction. The primary data exposed a harsh reality regarding basic infrastructure. Unreliable internet and sudden power cuts destroy the flow of a lesson. When teachers spend half their lecture trying to log into a portal, frustration builds quickly. The significant difference in perception among older faculty members highlights a desperate need for compassionate training. Throwing a manual at a teacher who has spent twenty years using a chalkboard will not work. They need hands-on, patient mentoring to feel comfortable in this new environment.

Institutions must rethink their approach. Buying expensive software is only the first step. The real investment must go into the teaching staff. Universities need to provide dedicated IT support teams that respond instantly during live classes. They need to adjust workload expectations, understanding that digital preparation takes heavy amounts of time. By addressing these basic challenges, colleges can remove the dread associated with technological shifts. When teachers feel supported and confident, they use digital tools to create brilliant, highly engaging lessons. Fixing these grassroots problems will ensure that commerce education continues to evolve, producing students who are truly ready for a digitized corporate world.

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