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Unveiling Learner Motivations: Factors Driving Willingness To Join Online Degree Programs

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1.*Abstract:* *The research investigates essential elements that motivate students to select online degree programs among the rapidly growing higher education sectors. Higher education institutions and their supporters should grasp student enrolment motivators because the expanding demand for flexible learning options requires this knowledge. The research analyses six essential elements that affect learner enrolment decisions, including system usability and accessibility along with cost factors, technology competencies, work-life balance, past online learning experience and academic institution reputation. This study utilizes a PLS-SEM approach to evaluate the association between the studied factors using data from learners in the Delhi-NCR region who have enrolled in UGC-approved universities offering online degree programs. The sample size in the study was 545 respondents. The study highlighted that the learners' enrolment decisions are heavily affected by their previous experience with online learning, their experience with technology, their cost analysis, and perception of institutional reputability. No significant relationship was found between work-life balance and its impact on enrolment decisions. The findings from this study offer important guidance to university administrators and policymakers to optimize their approach to designing online programs and promotion strategies so they can attract students more effectively. Higher education institutions should aim to enrich their students' digital skills with affordable tuition fees and promote the quality reputation of distance learning to support enrolment growth.*
Keywords: *Online education, enrolment, online degree programs, learner enrolment decisions, PLS-SEM*

2. INTRODUCTION

This study explores the factors influencing learners' willingness to enrol in online degree programs, a rapidly growing segment of higher education. As online education continues to expand, understanding the motivations behind enrolment decisions is crucial for institutions, policymakers, and educators to improve program design and accessibility. By examining key determinants such as cost, accessibility, technology skills, and institutional reputation, this research aims to shed light on the factors that drive student participation in online learning.

2.1 Problem Statement:

Virtual learning has transformed education by offering flexible and cost-effective degree programs, yet the willingness of learners to enrol in online degree programs may vary. Factors such as ease of use, cost, prior online experience, technical skills, work-life balance, and institutional reputation influence their decisions for choosing the right program, but their combined impact remains unclear. This study addresses the gap by analyzing these determinants to understand their role in shaping the learners' motivations.

2.2 Research Objectives:

The objectives of the study were as follows:

1 To identify the factors affecting the willingness of learners to join an online degree program
2 To examine the relationships between various influencing factors—ease of use and accessibility, cost considerations, technology skills, work-life balance, prior online learning experience, and institutional reputation—and the willingness of learners to join an online degree program.

2.3 Hypotheses:

H1: "A significant positive relationship exists between the ease of use and accessibility of an online degree program and the willingness of learners to join the program."
H2: "A significant positive relationship exists between the cost and financial considerations of an online degree program and the willingness of learners to join the program."
H3: "A significant positive relationship exists between the learners' technology and internet access skills and their willingness to join an online degree program."

H4: "A significant positive relationship exists between the work-life balance of learners and their willingness to join an online degree program."
H5: "A significant positive relationship exists between learners' previous experience with online learning and their willingness to join an online degree program."
H6: "A significant positive relationship exists between the perceived value and institutional reputation of an online degree program and the willingness of learners to join the program."

2.4 Significance of the Study:

This study will help understand the major factors influencing the learners' willingness to join online degree programs. It will help the key stakeholders in the higher education industry, including educational institutions, ed-tech companies, and policymakers, improve their strategies to serve this segment. The findings of the study will help improve the design and quality of the program, can help in designing the right marketing campaigns, and will help in improving student/ learner engagement. All these will help in improving the accessibility and participation in higher education.

3. LITERATURE REVIEW

Online learning has significantly evolved over the past few decades, driven by technological advancements and changing educational needs. Distance learning traces its origins to the 19th century, with correspondence courses that offered minimal interaction between students and instructors (Moore & Kearsley, 2011). The rise of e-learning has introduced dynamic content, enabling students to learn without being confined to real-time interactions (Allen & Seaman, 2017). Furthermore, the blended learning approach, which combines traditional classroom engagement with online teaching, has increased the acceptance and success of online education (Garrison & Kanuka, 2004).

In developed countries, online learning has become an integral part of higher education policies. Universities offer online courses to meet the diverse needs of students, including working professionals and international learners (Means et al., 2013). The accessibility and flexibility of online degree programs are key factors behind their growing popularity, as students increasingly opt for them to accommodate their schedules and responsibilities (Means et al., 2014).

The Technology Acceptance Model (Davis, 1989) suggests that ease of use is a critical factor influencing technology adoption. In the context of online education, platforms with user-friendly interfaces and smooth navigation are more likely to attract learners (Selim, 2007). Additionally, financial considerations play a significant role in students' decision-making. The affordability of online degrees, coupled with savings on commuting and relocation, makes them an appealing option (Allen & Seaman, 2017; Bowen, 2013).

Technology skills and reliable internet access are crucial for successful participation in online learning. Van Dijk (2005) emphasized that digital competencies and strong internet infrastructure boost learners' confidence. Kaufman et al. (2019) also found that technical problems can hinder participation, highlighting the importance of a solid technological foundation.

Online programs offer flexibility, allowing students to balance personal, professional, and academic responsibilities. This flexibility has been particularly beneficial for working individuals and those with caregiving duties, leading to increased enrollment (Gosper et al., 2010; Stone & O'Shea, 2019). Previous positive experiences with online platforms also reduce anxiety and promote enrollment (Hung et al., 2010).

Finally, the perceived value of a program and the reputation of the institution are significant factors influencing students' choices. Students are more likely to enroll in programs from reputable institutions, as these are associated with quality education and improved career opportunities (Bolliger & Wasilik, 2009; Sussman & Yarasavage, 2011).

4. METHODOLOGY

The study adopted a descriptive research design. The population in the study consisted of learners from the NCR region who had joined an online degree program from the universities that had received permission from the UGC to run online degree programs. A purposive sampling technique was employed to ensure representation across different demographic segments. Given the large population of the learners for this study, Cochran's formula was employed to determine the appropriate sample size for the study, i.e. 385. For determining the sample size requirement for PLS-SEM, the online calculator (Soper, 2023) was also used to compute the minimum sample size required for this study. The suggested

minimum sample size suggested was 100. The data was collected from 545 respondents using a structured questionnaire. PLS- Structural equation modelling (SEM) was used for the data analysis using smart PLS 4 (Version 4.1.0.9) (Ringle et al., 2024)

5. DATA ANALYSIS

The study surveyed 545 learners enrolled in online degree programs. The demographics of the respondents are shown in Table 1. The majority (96%) were aged 18-34 years, with 49.2% in the 25-34 age group and 46.8% in the 18-24 age group, while only 4% were aged 35 and above. Gender distribution was nearly equal, with 51.7% male and 48.3% female participants. Most respondents (88.6%) were enrolled in undergraduate programs, while 11.4% pursued postgraduate degrees. Business and Management was the most popular field of study (63.7%), followed by Arts and Humanities (22.8%), Science and Technology (11%), and Social Sciences (2.6%).

Table 1: Demographic Profile of the Respondents

Demographics	Sub Category	Frequency	Percent
Age	18-24 yrs	255	46.8
	25-34 yrs	268	49.2
	35-44 yrs	15	2.8
	45-54 yrs	7	1.3
	Total	545	100
Gender	Male	282	51.7
	Female	263	48.3
	Total	545	100
Programme enrolled in	Undergraduate (Bachelor's Degree)	483	88.6
	Postgraduate (Master's Degree)	62	11.4
	Total	545	100
Field of Study	Science and Technology	60	11
	Arts and Humanities	124	22.8
	Social Sciences	14	2.6
	Business and Management	347	63.7
	Total	545	100

All the hypotheses were tested and the analysed using the PLS-SEM. Figure 1 shows the graphical output of the measurement model.

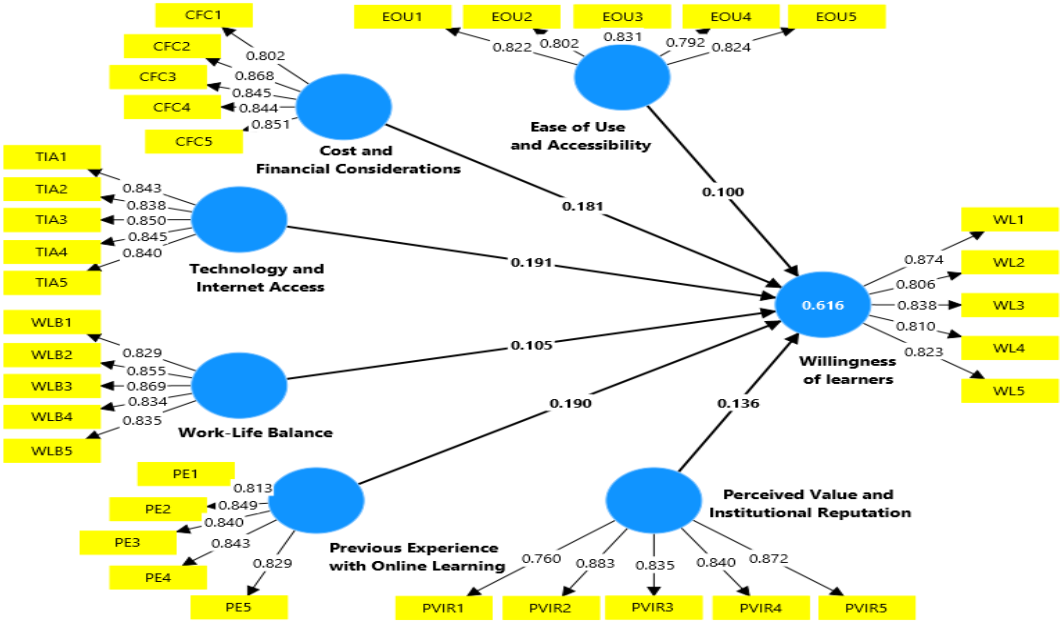

Figure 2: The graphical output of the Measurement Model

The measurement model was first examined to evaluate PLS-SEM results. The structural model was evaluated after assessing the reflective measurement model at lower and higher orders. The initial step

was to determine the indicator loadings. All the loadings were above 0.708, thus establishing the acceptable item reliability.

The second step was to assess the internal consistency reliability or the Indicator reliability. Three metrics, Cronbach's alpha, composite reliability (rho_a), and composite reliability (rho_c), were used to assess the indicator reliability. The value of these metrics exceeded its threshold limit of 0.70 as shown in table 2, establishing the Internal consistency reliability.

Table 2: Construct reliability and validity in Reflective Measurement Model

	Cronbach's alpha (α)	**(rho_a)**	**(rho_c)**	**(AVE)**
Cost and Financial Considerations	0.898	0.900	0.924	0.710
Ease of Use and Accessibility	0.873	0.875	0.908	0.663
Perceived Value and Institutional Reputation	0.894	0.897	0.922	0.704
Previous Experience with Online Learning	0.891	0.892	0.920	0.697
Technology and Internet Access	0.898	0.899	0.925	0.711
Willingness of learners	0.889	0.915	0.917	0.690
Work-Life Balance	0.899	0.900	0.926	0.713

The average variance extracted (AVE) was used to evaluate the construct's convergent validity as the thirst step. The AVE values for all the constructs, as shown in Table 2, were above the threshold limit, i.e., 0.50, thus establishing convergent validity.

HTMT ratio was used to establish the discriminant validity proposed by (Henseler et al., 2015). Table 3 shows the list of Heterotrait-monotrait ratio (HTMT) values that were within the threshold limit, i.e. below 0.85, thus establishing discriminant validity.

Table 3: Heterotrait-monotrait ratio (HTMT) in Reflective Measurement Model

	Heterotrait-monotrait ratio (HTMT)
Ease of Use and Accessibility <-> Cost and Financial Considerations	0.771
Perceived Value and Institutional Reputation <-> Cost and Financial Considerations	0.750
Perceived Value and Institutional Reputation <-> Ease of Use and Accessibility	0.715
Previous Experience with Online Learning <-> Cost and Financial Considerations	0.741
Previous Experience with Online Learning <-> Ease of Use and Accessibility	0.795
Previous Experience with Online Learning <-> Perceived Value and Institutional Reputation	0.736
Technology and Internet Access <-> Cost and Financial Considerations	0.839
Technology and Internet Access <-> Ease of Use and Accessibility	0.778
Technology and Internet Access <-> Perceived Value and Institutional Reputation	0.755
Technology and Internet Access <-> Previous Experience with Online Learning	0.818
Willingness of learners <-> Cost and Financial Considerations	0.746
Willingness of learners <-> Ease of Use and Accessibility	0.714
Willingness of learners <-> Perceived Value and Institutional Reputation	0.714
Willingness of learners <-> Previous Experience with	0.747

Online Learning	
Willingness of learners <-> Technology and Internet Access	0.766
Work-Life Balance <-> Cost and Financial Considerations	0.809
Work-Life Balance <-> Ease of Use and Accessibility	0.794
Work-Life Balance <-> Perceived Value and Institutional Reputation	0.847
Work-Life Balance <-> Previous Experience with Online Learning	0.811
Work-Life Balance <-> Technology and Internet Access	0.820
Work-Life Balance <-> Willingness of learners	0.744

As there were no reliability and validity issues in the measurement model, the structural model was then assessed with the help of collinearity statistics (VIF), statistical significance, Coefficient of determination (R^2), Model Fit and CVPAT (Hair, Risher, Sarstedt, & Ringle, 2019). Collinearity was first examined in the structural model assessment to ensure it did not bias the regression results. The collinearity statistics (VIF) values were used to check the collinearity issues. The VIF values were below 3, i.e. its threshold limit, as shown in Table 4. Thus, there were no collinearity issues.

Table 4: Collinearity statistics (VIF) values in the Structural Model

	VIF
CFC1	1.991
CFC2	2.62
CFC3	2.369
CFC4	2.252
CFC5	2.348
EOU1	2.043
EOU2	1.966
EOU3	2.051
EOU4	1.871
EOU5	2.038
PE1	2.059
PE2	2.369
PE3	2.218
PE4	2.318
PE5	2.22
PVIR1	1.66
PVIR2	2.89
PVIR3	2.384

	VIF
PVIR4	2.348
PVIR5	2.707
TIA1	2.316
TIA2	2.314
TIA3	2.368
TIA4	2.308
TIA5	2.205
WL1	2.287
WL2	2.025
WL3	2.239
WL4	2.042
WL5	2.159
WLB1	2.118
WLB2	2.419
WLB3	2.621
WLB4	2.292
WLB5	2.253

The Model's explanatory power for the endogenous construct of the willingness of learners to join online degree programs was checked using R^2. The R^2 value of 0.616, as shown in Table 5, shows that 61.6% of the variance in the endogenous construct was explained by the exogenous variables in the PLS-SEM model.

Table 5: R-square and R-square adjusted in the Structural Model

	R-square	**R-square adjusted**
Willingness of learners	0.616	0.611

Model fit indices were used to evaluate how well the model represents the data and ensures the reliability and validity of the conclusions drawn from the analysis. Table 6 shows the values for these indices. An SRMR value below 0.08 is typically considered to indicate a good model fit, indicating that the model closely matches the observed data. The value of 0.056 suggests an acceptable model fit. The NFI of 0.877 suggests that the model fits the data reasonably well.

Table 6: Model Fit- SRMR & NFI

	Saturated model	Estimated model
SRMR	0.056	0.056
d_ULS	1.944	1.944
d_G	0.617	0.617
Chi-square	1792.922	1792.922
NFI	0.877	0.877

The bootstrapping procedure was used to test the hypotheses and assess the statistical significance. In bootstrapping, a sample of 5000 was taken with parallel processing. The percentile bootstrap confidence interval method was used as the bootstrap distribution of the indicator weights. Table 7 shows the Beta Coefficient, Standard Error, T statistics and P values to test the relevance and significance of the path coefficients.

Table 7: Beta coefficients, Standard Error, T values, P values

	Original sample (O) / Beta Coefficient	Standard Error	T statistics (|O/STERROR|)	P values	Results
Cost and Financial Considerations -> Willingness of learners	0.181	0.046	3.952	0.000**	Supported
Ease of Use and Accessibility -> Willingness of learners	0.100	0.049	2.032	0.042**	Supported
Perceived Value and Institutional Reputation -> Willingness of learners	0.136	0.038	3.565	0.000**	Supported
Previous Experience with Online Learning -> Willingness of learners	0.190	0.041	4.630	0.000**	Supported
Technology and Internet Access -> Willingness of learners	0.191	0.048	3.947	0.000**	Supported
Work-Life Balance -> Willingness of learners	0.105	0.056	1.883	0.060	Rejected

The results of the bootstrapping procedure in PLS-SEM indicate that five out of six hypothesized relationships significantly influence learners' willingness to enrol in online degree programs. Cost and financial considerations ($\beta = 0.181$, $p = 0.000$), ease of use and accessibility ($\beta = 0.100$, $p = 0.042$), perceived value and institutional reputation ($\beta = 0.136$, $p = 0.000$), previous experience with online learning ($\beta = 0.190$, $p = 0.000$), and technology and internet access ($\beta = 0.191$, $p = 0.000$) all have significant positive effects on willingness to enrol. However, work-life balance ($\beta = 0.105$, $p = 0.060$) was not found to be a significant predictor ($p > 0.05$), suggesting that it does not strongly influence learners' enrolment decisions. These findings highlight that financial, technological, and institutional factors are crucial in shaping learners' willingness to pursue online education.

The cross-validated predictive ability test (CVPAT) was employed to evaluate the model's predictive power

for out-of-sample data. The results of CVPAT are shown in table 8. The average loss difference of −0.248 confirms that the PLS path model reduces prediction error by 0.248 compared to the benchmark. This difference is statistically significant, as reflected by a high t-value of 8.794 and a p-value of 0.000 ($p < 0.001$). These findings highlight the strong predictive capabilities of the PLS path model.

Table 8: CVPAT- PLS-SEM vs. Indicator Average (IA)

	PLS loss	IA loss	Average loss difference	t value	p value
Willingness of learners	0.377	0.625	-0.248	8.794	0.000**

6. FINDINGS AND DISCUSSIONS

The study found six essential factors that affect learner decisions about online degree enrolment: accessibility and usability, study expenses, technological abilities, work-life equilibrium, past virtual learning experience, and organizational standing and reputation. Only work-life balance fails to show statistical significance among the factors influencing their enrolment choices. Learners with background experience in online learning techniques and digital aptitude demonstrated the most confident approach to degree enrolment. Student/learner enrolment decisions depended heavily on the affordability of educational costs and their assessment of institutional value since accreditation status and professional career positives emerged as important factors. The user-friendly design and open access prevalence motivated Learners to manage enrolment by lowering technology hurdles. The research suggests that work-life balance did not lead directly to enrolment changes, yet its connecting role between perceptions of ease of use and value needs to be studied further.

7. Implications

The findings of this study have significant implications for various stakeholders in the online education ecosystem. Understanding the factors that influence students' willingness to enroll in online degree programs can guide institutions, educators, and policymakers in developing strategies that enhance student participation and success.

7.1 Students: The study highlights the importance of prior online learning experience and digital proficiency in enhancing confidence and willingness to enrol. Students should seek preparatory resources and skill-building opportunities to maximize their success in online education.

7.2 Higher Education Institutions: Institutions should simplify platform navigation, offer financial flexibility, and emphasise accreditation and career benefits to attract more learners. Providing pre-enrolment training can help bridge technology gaps.

7.3 Teachers: Instructors should design user-friendly, interactive, and engaging online courses to enhance student experience and retention. They should also integrate support mechanisms to assist less tech-savvy learners.

7.4 Policymakers: Policies should prioritize digital infrastructure improvements, financial aid options, and quality assurance in online education. Promoting digital literacy initiatives can further increase accessibility and student participation.

8. Recommendations

Based on the study's results, several practical recommendations are made to improve online education enrollment and student engagement. These suggestions aim to address key barriers and leverage factors that motivate learners to pursue online degrees, benefiting students, higher education institutions, and policymakers.

8.1 Enhancing Digital Literacy and Technical Support: Institutions should provide training and tech support to help students develop necessary digital skills, ensuring they can fully engage with online learning platforms.

8.2 Improving Affordability and Financial Aid: Universities should introduce flexible payment plans, scholarships, and financial assistance to make online education more accessible to a wider range of students.

8.3 Optimizing Platform Accessibility and Ease of Use: Institutions should invest in user-friendly, intuitive learning platforms that offer clear navigation and mobile compatibility to reduce technical barriers for students.

8.4 Policy Interventions for Digital Infrastructure Development: Policymakers should invest in expanding internet access and digital infrastructure, especially in underserved regions, to ensure equal access to quality online education.

9. CONCLUSION

This research study emphasizes that three significant elements drive student willingness to participate in online degree programs: their digital skills level, program costs, and institutional recognition. Students, higher education institutions, and policymakers must take immediate action because they need better digital literacy with affordable education via friendly interfaces within strong digital systems. The accessibility and engagement in online education require institutions to invest in preparatory resources, flexible payment plans, and usable platforms, and policymakers need to take action by increasing internet access. When these factors are considered, online education becomes more inclusive and sustainable as an accessible learning method for various student groups.

10. Limitations And Future Research

The study focused on the Delhi-NCR region and UGC-approved universities offering online programs, which may limit the generalizability of the findings to other areas or institutions. Its cross-sectional design captures perceptions at a single point in time, potentially missing long-term trends. Additionally, time constraints in coordinating data collection across multiple universities limited the opportunity for a more in-depth, longitudinal analysis.

Future research could expand the geographical scope to include diverse regions and institutions, enhancing the generalizability of findings. Additionally, longitudinal studies examining the evolving trends in online education and exploring the impact of emerging technologies on learner motivations could provide deeper insights into the dynamics of online learning.

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