Contribution of Predictor Variables on Student Satisfaction in Distance Learning Programme of the Postgraduate Students

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Abstract: The purpose of this study is to analyze the effect of important predictor variables on student satisfaction in distance learning. In the present work, descriptive method of research was utilized by the researcher. The Researcher was selected 09 Study centres out of 73 Study Centers from Kuvempu University Directorate Distance Education across Karnataka. A Convenience sample of Four Hundred and Eighty Postgraduate students was drawn from nine Study centres in Kuvempu University. They responded to Seven instruments and all instruments was developed and validated by Investigator. The hypotheses were tested by analysing data by using appropriate descriptive and inferential statistics. The total contribution of all the independent variables on student's satisfaction in Distance learning programme among postgraduate students was found to be 49.61%. The Technology (X_4) is the First Contributor/predictor followed by Study material (X_5), Course Evaluation (X_2), Orientation Program (X_6), Instructor Performance (X_1), and Physical Environment (X_3) on student satisfaction in Distance learning programme of Postgraduates.

Introduction:

Most of the students perceive distance learning as of poor quality. Therefore, the researcher is conducting this study to find out whether it's only student satisfaction or is there anything in reality, concerning the poor performance of the distance learning students and how student satisfaction could be measured in distance learning. The distance learning in this study refers to the use of the Internet, audio and video lectures along with correspondence of the instructors as a medium of instruction as well as a source of information etc., Consistent with this rationale, the main purpose of this study is to examine the relationship between student satisfaction and the following variables of the distance learning environment: Instructors' performance, course evaluation, student-instructor interaction, Physical Environment, Technology, Flexibility, Task Orientation and Personal Involvement.

Institutions of higher education have necessarily been concerned with student success and satisfaction. While students must be sufficiently independent and self-disciplined in pursuing distance learning, institutions are not free of responsibility. Faculty and administrators must consider many factors in helping students overcome barriers to effective and efficient implementation of distance education courses, curricula and programs.

Need and Rationale of the Study:

There is lack of sufficient research in the case of Distance Education in Karnataka as to what associated factors correlates/affect Satisfaction in Distance learning Programme and the researcher would therefore like to establish the contribution of predictor variables viz., Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material, Orientation Programme in predicting the criterion variable (Satisfaction in Distance learning Programme) among students enrolled in Kuvempu University Directorate of Distance Education. The purpose of this study is to analyze the effect of important predictor variables on student satisfaction in distance learning. In this perspective, the primary objective of this research study was to examine the relationship between student satisfaction and the following factors of the distance learning environment: Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material and Orientation Programme.

Objectives:

- To study the contribution of Predictor variables (Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material, Orientation Programme) on predicating the criterion variable (Student Satisfaction in Distance Learning Programme) of the Postgraduate Students'.

Hypothesis:

- There is no difference in the contribution of Predictor variables (Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material, Orientation Programme) on predicating the criterion variable (Student Satisfaction in Distance Learning Programme) of the Postgraduate Students'.

Research Method

The descriptive survey method was applied in the present investigation. It identifies the current status of the research study. It involves interpretation, comparison, measurement, classification, analysis, evaluation and induction. In the present research, descriptive method of research was utilized by the researcher.

Variables:

Independent variables are the reason and the dependent variable is the result. factors of the Distance Learning Environment Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material and Orientation Programme are Independent variables. The dependent variable is Students' Satisfaction in Distance Learning.

Sampling:

The researcher was used Random sampling method in the Present study. The Researcher was selected 09 Study centres out of 73 Study Centers from Kuvempu University Directorate Distance Education across Karnataka. Out of 9 study centres Researcher selected 8 study centres from Four Divisions of Karnataka via, Bangalore, Mysore, Gulbarga and Belgaum by lottery method (researcher selected two study centres from each division) and one of the main campus of Kuvempu University Directorate of Distance Education. A Convenience sample of 480 students selected from postgraduate students was drawn from nine Study centres, enrolled in distance education in Kuvempu University in the academic year 2015-16.

Tools used for the Study:

The investigator constructs his own tools for Students Satisfaction in Distance Learning Programme and Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material and Orientation Programme tool. Caution was needed to ensure that the tool was accepted levels of robustness and reliability.

Statistical Techniques used:

The hypotheses were tested by analysing data by using appropriate descriptive and inferential statistics. Descriptive statistics, t-test and Regression were used for the study.

Analysis and Interpretation of the Data:

There is no significant difference in the contribution of predictor variables (Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material, Orientation Programme) on predicating the criterion variable (student satisfaction in Distance Learning Programme) of Postgraduate students.

To achieve this hypothesis, the multiple linear regression procedure applied and the solutions are shown in the below tables.

Table-1: Summary of ANOVA for Regression

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	9593.260	6	1598.877	77.427	Significant at 0.05 level
Residual	9767.487	473	20.650		
Total	**19360.748**	**479**			

The effect of Instructor Performance (X_1), Course Evaluation (X_2), Physical Environment, (X_3), Technology (X_4), Study Material (X_5) and Orientation Programme (X_6) was found to be significant

(F=77.427, p<0.05) along the student's satisfaction in Distance Learning Programme of Postgraduate Students' at 0.05 level of significance. Hence, the null hypothesis is rejected and the alternative hypothesis is accepted. It implies that, Instructor Performance (X_1), Course Evaluation (X_2), Physical Environment, (X_3), Technology (X_4), Study Material (X_5) and Orientation Programme (X_5) are the significant Predictors of Student Satisfaction with Distance Learning Programme of Postgraduate Students'.

Table-2: Regression co-efficient of Undergraduate Students (Model Summary)

R	R Square	Adjusted R Square	Std. Error of the Estimate
.704	.496	.489	4.54424

Table-2 shows that, the coefficient of multiple determination of R^2 is .496. It can be, therefore, be said that nearly 49.6 percent of the variation in student's satisfaction in Distance Learning Programme of postgraduate students' accounted for whatever is measured by Instructor Performance (X_1), Course Evaluation (X_2), Physical environment, (X_3), Technology (X_4), Study Material (X_5) and Orientation programme (X_6) taken in concert. The test for the regression equation is 4.54424. This intends that each time the regression equation for the sample is used to call a Student Satisfaction; the prospects are predicted Student's Satisfaction will not overlook the actual Student's Satisfaction with Distance Learning Programme of Postgraduate Students' by more than ±4.54424.

Table-3: Effect of predictor variables on Student Satisfaction in Distance Learning Programme of Postgraduate Students.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	14.795	2.110		7.012	.000
Instructor Performance	.185	.049	.148	3.756	.000
Course Evaluation	.253	.056	.181	4.535	.000
Physical Environment	.150	.069	.091	2.170	.031
Technology	.263	.064	.187	4.084	.000
Study Material	.241	.059	.178	4.048	.000
Orientation programme	.195	.056	.160	3.508	.000

The effect of Instructor Performance (X_1) was found to be positive and significant on student's satisfaction with Distance Learning Programme of undergraduate students' (Regression co-efficient=.148, t=3.756, p<0.05) at 0.05 level of significance. It implies that, Instructor Performance (X_1) is a substantial predictor of student's satisfaction with Distance Learning Programme of Postgraduate Students'.

The effect of Course Evaluation (X_2) was found to be positive and significant on Student's satisfaction with Distance Learning Programme of postgraduate students' (Regression co-efficient=.181, t=4.535, p<0.05) at the 0.05 level of significance. It signifies that, Course Evaluation (X2) is a substantial predictor of Student Satisfaction in Distance Learning Programme of Postgraduate Students'.

The effect of Physical environment (X_3) was found to be positive and significant on student satisfaction with Distance Learning Programme of Postgraduate Students' (Regression co-efficient=.091, t=2.170, p<0.05) at 0.05 level of significance. It implies that, Physical environment (X_3) is a substantial predictor of student satisfaction with Distance Learning Programme of Postgraduate Students'.

The effect of Technology (X_4) was found to be positive and significant on student satisfaction in Distance Learning Programme of Postgraduate Students' (Regression co-efficient=.187, t=4.084, p<0.05) at 0.05 level of significance. It signifies that, Technology (X_4) is a substantial predictor of Student's Satisfaction with Distance Learning Programme of Postgraduate Students'.

The effect of Study Material (X_5) was found to be positive and significant on Student Satisfaction in Distance Learning Programme of Postgraduate Students' (Regression co-efficient=.178, t=4.048, p<0.05) at the 0.05 level of significance. It signifies that, Study Material (X5) is a substantial predictor of Student Satisfaction in Distance Learning Programme of Postgraduate Students'.

The effect of the Orientation Programme (X_6) was found to be positive and significant on Student Satisfaction in Distance Learning Programme of postgraduate students' (Regression co-efficient=.160, t=3.508, p<0.05) at 0.05 level of significance. It implies that, Orientation Programme (X6) is a substantial predictor of Student Satisfaction in Distance Learning Programme of Postgraduate Students'.

The relative contribution Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material, Orientation Programme on Student Satisfaction in Distance Learning Programme of Postgraduate Students' is presented in the following table.

Table-4: Relative contributions of predictor variables on criterion variable (Student Satisfaction) in Distance Learning Programme of Postgraduate Students'

Variables	Beta	R	Beta X r	%of contribution
Instructor Performance (X_1)	.148	0.457	0.067636	6.7636
Course Evaluation (X_2)	.181	0.496	0.089776	8.9776
Physical environment (X3)	.091	0.484	0.044044	4.4044
Technology (X_4)	.187	0.570	0.10659	10.659
Study material (X_5)	.178	0.559	0.099502	9.9502
Orientation program (X_6)	.160	0.554	0.08864	8.864
Total				**49.61**

the total contribution of all the independent variables on student satisfaction in Distance Learning Programme of postgraduate students was found to be 49.61%, in which the contribution of Instructor Performance (X_1) = 6.76%, Course Evaluation (X_2) = 8.97%, Physical Environment (X_3) = 4.40%, Technology (X_4) = 10.65, Study Material (X_5) = 9.95 and Orientation Program (X_6) is 8.86. Thus, we conclude that, The Technology (X_4) is the First Contributor/predictor followed by Study Material (X_5), Course Evaluation (X_2), Orientation Program (X_6), Instructor Performance (X_1), and Physical Environment (X_3) on the student satisfaction in Distance Learning Programme of Postgraduate Students'.

The regression equation developed for the contribution of predictor variables (Instructor Performance, Course Evaluation, Physical Environment, Technology, Study Material, Orientation Programme) in predicating the criterion variable (Student Satisfaction) in Distance Learning Programme of Postgraduate Students'.

Major Findings of the Study:

- Instructor Performance (X_1), Course Evaluation (X_2), Physical Environment, (X_3), Technology (X_4), Study Material (X_5) and Orientation Program (X_5) are the significant predicating of student satisfaction in Distance learning programme among postgraduate students. ($F=77.427$, $p<0.05$). 49.6 percent of the variation in student's satisfaction in Distance learning programme among postgraduate students accounted for whatever is measured by Instructor Performance (X_1), Course Evaluation (X_2), Physical environment, (X_3), Technology (X_4), Study Material (X_5) and Orientation program (X_6) taken together.
- The total contribution of all the independent variables on student's satisfaction in Distance learning programme among postgraduate students was found to be 49.61%, in which the contribution of Instructor Performance (X_l)= 6.76%, Course Evaluation (X_2) = 8.97%, Physical Environment (X_3) = 4.40% and Technology (X_4) = 10.65, Study material (X_5) = 9.95 and Orientation program (X6) is about 8.86%. The Technology (X_4) is the First Contributor/predictor followed by Study material (X_5), Course Evaluation (X_2), Orientation Program (X_6), Instructor Performance (X_1), and Physical Environment (X_3) on student satisfaction in Distance learning programme among Postgraduate Students.
- The regression equation developed for the contribution of predictor variables (Instructor Performance, Course Evaluation, Physical environment, Technology, Study material, Orientation program) in predicating the criterion variable (student's satisfaction) satisfaction in Distance learning programme among postgraduate students. (N=480) i.e., $Y=14.795+.148\ (X_1) + .181\ (X_2) + .091\ (X_3) + .187\ (X_4) + .178\ (X_5) + .160\ (X_6)$.

Implications and Recommendations:

- Study centres are facilitating to learners, can access e-libraries, e-learning and virtual classrooms. Implementing technology training, orientation before courses start may help increase students' confidence in performing Internet-related tasks required by the course and in turn enhance student satisfaction.
- Study centres are conducting course wise Tutorials must be organised for learners. Study centres must make space available and study group use at times suitable and convenient for learners. Study centres increase the frequency of the contact/orientation programmes.
- Quality Distance Learning requires careful care to learning design, effective staff training, organizational commitment to adequate program support, choice of appropriate delivery technology, and a focus on pupil reading results.

- Quality Study materials must be provided for learners. Distance learning education at Kuvempu University, enough interaction takes place between students and their instructors, courses are up to date and well designed; instructors are devoted, motivated and equipped with the required skill and knowledge.
- This research indicates that teachers are still relevant even in a distance education context. Perhaps future research should explore the instructional part of effective distance teaching. Additionally, distance learning programs may want to place extra emphasis on recruiting staff that already have an interest in computer aided education. The results point to the possible improvement in the quality of courses due to the experience and the student feedback from the evaluations.

Conclusion:

For the future point of view, one can consider the students of the all other centres of Kuvempu University Directorate of Distance Education, especially those established in small and underdeveloped cities in order to find out their satisfaction levels toward distance learning. Secondly, to explore the reasons why students select distance learning in higher education in Kuvempu University Directorate of Distance Education is likewise an important topic for future research subjects. It is clear that other genes may also contribute to distance learners' satisfaction.

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