Original Research Article

Motivational Factors of Learners for Enrolling in Organic Farming Certificate Course through Open and Distance Learning Mode

ABSTRACT

This study aims at revolving around the motivational factors that propelled the learners to join the Open and Distance Learning certificate course. The motivational factors that are influencing the enrolment of learners in the course were: Teaching – Learning process in ODL study centre, Academic factors of ODL certificate course, Attractive factors of ODL study centre and other influencing factors on motivation of learners to enrol in ODL certificate course. Using quantitative research approach, a structured survey questionnaire was employed to intercept the motivational factors of the learners' using data collected from certified learners of Organic farming course provided in TNAU ODL directorate. Results from the application of Structural Equation Modeling (SEM) of 131 valid learners implied Teaching – Learning process, Academic factors, Attractive factors and other influencing factors have significantly motivated the learners to enrol ODL certificate course.

Key words: Certificate programme, Distance learning, Enrolment factor and Organic farming

1. INTRODUCTION

In the study of psychology, Motivation is the driving factor behind behaviour of an individual. According to Barak et.al., (2016), Motivation in open and distance learning influences what, how, and when students learn. In the process of learning, motivation is crucial. According to Kiymet (2010), Motivation is the best variable that affects students learning. A number of research found a significant causal link between motivation and learners' participation and achievement in learning environment (Baturay et.al., 2015). In other words, interaction patterns in the learning environment are influenced by varied levels of motivation. Thus, motivation has been perceived as a determinant factor for students' satisfaction and learning outcomes in Distance Learning environment. Though, motivational factor is considered crucial for participation and attention of students and enrolment of students, it is not easily promoted. There should be more attractive, Teaching – learning factors, academic and other influencing factors for the learners to join the certificate course. Lack of motivation can also be a cause for attrition in Distance Learning.

In today's rapidly evolving world, where knowledge and skills are key to success, Open and Distance Learning (ODL) certificate courses have emerged as a popular and accessible avenue for students seeking to enhance their education. ODL programs offer a flexible and convenient approach to learning, enabling students to pursue certification courses from the comfort of their own homes. However, beyond the convenience factor, there are several motivational factors that drive students to

join ODL certificate courses. This article explores some of the compelling reasons why students are increasingly opting for ODL programs, including the opportunity for self-improvement, career advancement, and the ability to balance personal commitments with educational pursuits. By understanding these motivational factors, we can gain insights into why ODL certificate courses are becoming an attractive option for students worldwide.

Agriculture, being an applied science, the advancement in cognitive, psychomotor and affective domains is considered vital to enhance the effectiveness of people, profits and products through agriculture. The effectiveness of distance learning with limited access to the field depending on study centres for such facilities needs serious consideration. The factors revolving around the Open and Distance Learning study centers that motivate the learners to join the certificate course are considered necessary to be analyzed.

2. MATERIAL AND METHODS

This study is undertaken to assess motivational factors that influence learners in enrolling organic farming certificate course in Directorate of Open and Distance Learning (DODL) of Tamil Nadu Agricultural University (TNAU). DODL of TNAU was purposively selected for the study. It is one of the pioneer distance learning centres among the state agricultural university started in the year 2005. The courses being offered are certificate courses, Diploma programmes, PG Degree, Online certificate courses, Diploma in Agri – Inputs (DAI) programme and crash programs. Under certificate courses, there are 41 courses related to agriculture and allied science namely Vegetable Seed Production, Cotton and flower Cultivation technology, Hybrid Seed Production in Cotton and Maize, Weed Management, Small Millets Cultivation and Value Addition, Handling of Chemicals and Toxic Substance, Fodder and Seed production in rice and maize etc.,

Among the 41 certificate courses, the course on Organic Farming was purposively selected for the research, considering the maximum number of enrolments and its popularity. By employing whole sampling method, the present study was conducted with all the 131 learners of organic farming certificate course passed out in the academic year of 2019-2021 from two ODL study centres viz., DODL, TNAU (57 learners) and GVG College (74 students).

A well – structured interview schedule was developed. Data collected using personal interview and telephonic conversation. Level of motivation of the learners has been studied by four constructs namely Teaching – Learning process, Attractive factors, Academic factors and other influencing factors. The developed conceptual model (Fig 1) was analyzed using SEM PLS software for assessing the motivational factors influencing the enrolment of ODL learners by calculating various parameters including validity and reliability tests of the measurement model and path coefficients of structural model.

2.1 Conceptual Model

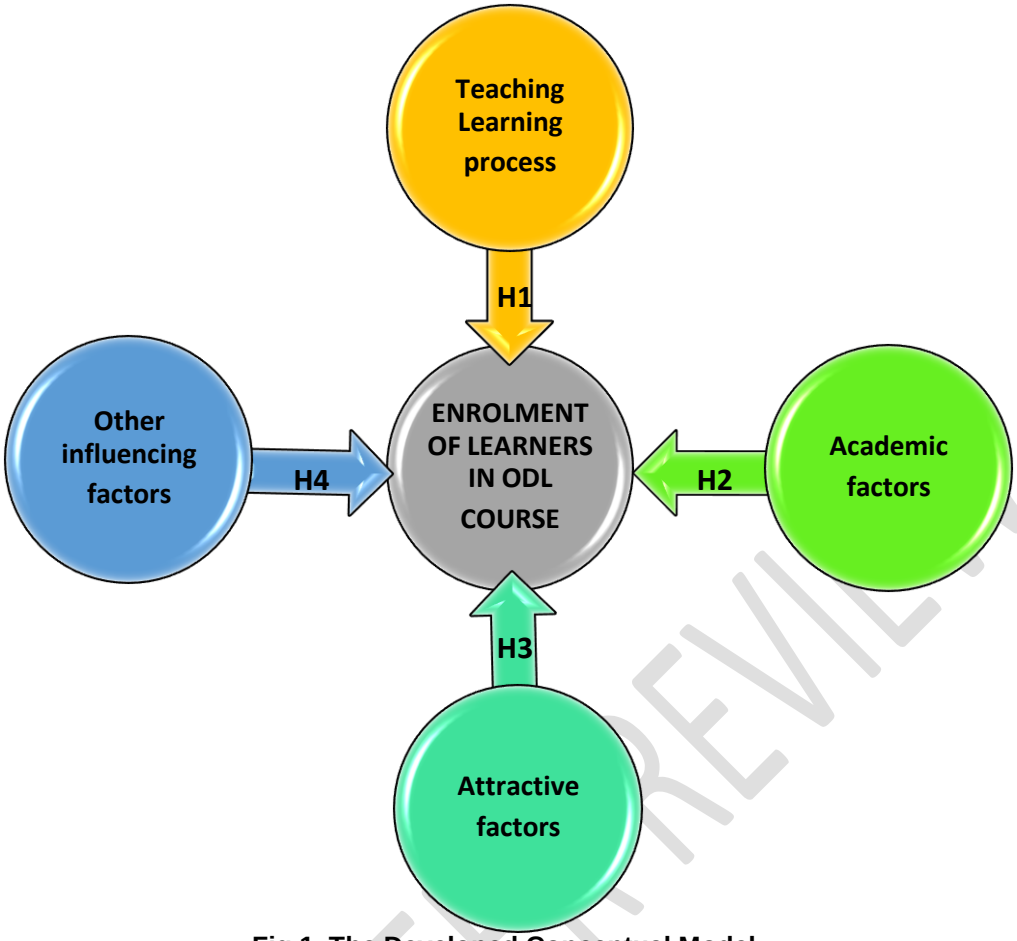

Fig 1. The Developed Conceptual Model

According to the research framework, this study proposes the following research hypotheses:

Hypothesis 1 (H1). Teaching – Learning process positively affect the enrolment of learners

Hypothesis 2 (H2). Academic factors positively affect the enrolment of learners

Hypothesis 3 (H3). Attractive factors positively affect the enrolment of learners

Hypothesis 4 (H4). Other influencing factors positively affect the enrolment of learners.

Table 1. Research Constructs and Measurements

Constructs	Operationalization	Literature Adapted
Teaching – Learning Process	Interactive learning environment (i.e., discussion forums, Augmented and visual learning) Rapid feedback and follow up Providing contemporary, original and practical examples Mutual trust and respect in the learning environment	Kiymet (2010)

Academic factors	Easy access to advanced education Flexible and transparent curriculum Effective time utilization for the classroom Obligatory attendance to the course	Ferri et. al., (2016)
Attractive factors	Opportunity for entrepreneurship To get additional qualification To explore knowledge on adopting organic farming practices Course fee structure	Ferri et. al., (2016)
Other influencing factors	Success stories /Visiting Organic farm Campaigns, workshops and training programme Contact with KVK, extension agents and ADA Office Influence of media, peer groups	Kiymet (2010)
Enrolment of learners in ODL course	Personal interest in the agriculture field Desire to became an Entrepreneur / Agripreneur Convenience of the ODL courses than Regular courses to the home makers / senior citizens / differently abled people Affordable and Quality education	Developed for the study

3. RESULTS AND DISCUSSION

3.1. Measurement Model

Measurement Model used to gauge the validity and reliability of constructs of the study. It was appraised by content, convergent validity and discriminant reliability, where the content validity was examined by using pilot survey, expert opinion and review of literature. The convergent validity was tested by working out Cronbach's Alpha, Composite reliability (Rho_A), Composite reliability (Rho_C) and Average Variance Extracted. It was done to ensure each set of items in relation with construct whether accurately representing the investigated variables. Result depicted in Table 2 indicates that all the values of constructs exceed the recommended value (Cronbach $\alpha > 0.7$, Composite reliability > 0.7, Average Variance Extracted > 0.5). As depicted in Table 3, the result indicated that all the values of the constructs exceed the recommended value (Factor loadings > 0.7). According to the results of measurement model, each of the constructs is proven to be valid and reliable.

Table 2. Construct reliability and validity

S.NO	Constructs	Cronbach's Alpha	Composite Reliability (Rho_A)	Composite Reliability (Rho_C)	Average Variance Extracted (Ave)
1	Teaching – Learning process	0.881	0.885	0.919	0.739

2	Academic factors	0.909	0.912	0.936	0.785
3	Attractive factors	0.926	0.94	0.929	0.767
4	Other influencing factors	0.965	0.969	0.975	0.905
5	Learner Motivation to enrol in ODL course	0.921	0.921	0.944	0.807

Table 3. Factor loadings

INDICATORS	CONSTRUCTS				
	1	2	3	4	5
LT1	0.886				
LT2	0.899				
LT3	0.783				
LT4	0.865				
AcF1		0.887			
AcF2		0.873			
AcF3		0.885			
AcF4		0.899			
AF1			0.952		
AF2			0.857		
AF3			0.715		
AF4			0.957		
IF1				0.953	
IF2				0.962	
IF3				0.945	
IF4				0.946	
LE1					0.89
LE2					0.89
LE3					0.909
LE4					0.905

1- Teaching Learning process, 2- Academic factors, 3- Attractive factors, 4- Other influencing factors, 5- Learners Motivation to enrol in ODL course

Discriminant validity was calculated by equating the correlation between the square root of the AVE of variables and different variables. The findings shown in Table 4 (Fornell- Lacker criterion) opined that square roots of AVE were all above the correlation between the constructs and discriminant validity, whereas using HTMT as a criterion involves comparing it to predefined threshold. If the value of the HTMT is at a maximum value of 0.85 (Henseler et. al., 2015), one can conclude that there is lack of discriminant validity. As shown in Table 5, in our case, there was no such discriminant present.

Table 4. Test of discriminant validity (Fornell - Lacker criterion)

Constructs	1	2	3	4	5
	AF	AcF	IF	LM	LT
AF	0.876				
AcF	-0.114	0.886			
IF	0.322	0.396	0.952		

LE	0.098	0.298	-0.474	0.899	
LT	0.353	-0.339	-0.388	0.5	0.859

Table 5. Discriminant validity (HTMT criterion)

Constructs	**1**	**2**	**3**	**4**	**5**
	AF	**AcF**	**IF**	**LM**	**LT**
AF					
AcF	0.159				
IF	0.382	0.424			
LE	0.082	0.325	0.5		
LT	0.363	0.381	0.416	0.554	

3.2. Structural Model and Hypothesis Testing

Once the reliability and validity in measurement model were verified, the relationship among the variables was investigated and hypotheses tested using standardized paths assessment. The bootstrap resampling technique was used to calculate the path significance of propounded relations (Henseler et. al., 2009), with about 900 iterations of resampling.

Since the objective of the study is to assess the diverse motivational factors influencing the enrolment of learners in ODL certificate courses. As depicted in Fig 3, Motivational factor is the significant determinant of enrolment of learners to join in ODL certificate course. Motivational factor was computed using four constructs namely Teaching – Learning process (H1), Academic factors (H2), Attractive factors (H3), and other influencing factors (H4). Results depicted in Table 6 indicated that all the four hypotheses, H1, H2, H3 and H4 were supported. It could be inferred from Table 6 that the statistical value for paths Teaching – learning process **->** Enrolment of Learners, Academic factors **->** Enrolment of learners, Attractive factors **->** Enrolment of factors, Other influencing factors **->** Enrolment of factors are 4.532 (0.000), 8.993 (0.000), 2.231 (0.026) and 5.553 (0.000) respectively. The t – statistics for the paths were greater than 1.96 which indicates that the outer model loadings are highly significant.

Table 6. Path Coefficient: Direct Relationship

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Empirical Remarks
AF ->LE	0.278	0.276	0.125	2.231	0.026	**Supported**
AcF -> LE	0.739	0.741	0.082	8.993	0.000	**Supported**
IF -> LE	-0.710	-0.707	0.128	5.553	0.000	**Supported**
LT -> LE	0.377	0.386	0.087	4.352	0.000	**Supported**

Table 7. Outer Loadings: Mean, ST Dev, T Value And P Value

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
AF1 <- AF	0.952	0.841	0.212	4.500	0.000
AF2 <- AF	0.857	0.810	0.201	4.252	0.000
AF3 <- AF	0.715	0.726	0.240	2.980	0.003
AF4 <- AF	0.957	0.838	0.224	4.281	0.000
AcF1 <- AcF	0.887	0.886	0.047	18.686	0.000
AcF2 <- AcF	0.873	0.869	0.049	17.746	0.000
AcF3 <- AcF	0.885	0.878	0.051	17.186	0.000
AcF4 <- AcF	0.899	0.895	0.046	19.625	0.000
IF1 <- IF	0.953	0.952	0.013	76.034	0.000
IF2 <- IF	0.962	0.961	0.011	87.651	0.000
IF3 <- IF	0.945	0.944	0.012	82.066	0.000
IF4 <- IF	0.946	0.944	0.019	49.412	0.000
LE1 <- LE	0.890	0.890	0.024	36.753	0.000
LE2 <- LE	0.890	0.890	0.019	46.414	0.000
LE3 <- LE	0.909	0.909	0.019	46.962	0.000
LE4 <- LE	0.905	0.905	0.020	46.136	0.000
LT1 <- LT	0.886	0.885	0.024	37.634	0.000
LT2 <- LT	0.899	0.899	0.017	52.302	0.000
LT3 <- LT	0.783	0.781	0.050	15.724	0.000
LT4 <- LT	0.865	0.865	0.025	35.169	0.000

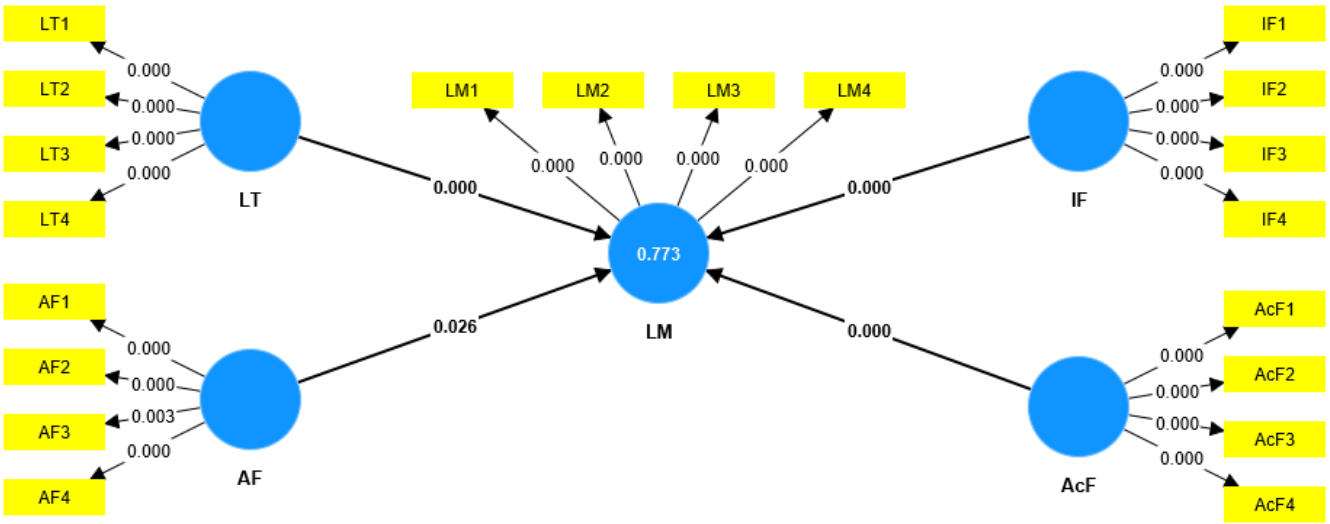

Fig 2. SEM PLS Hypothesized Model using Bootstrapping

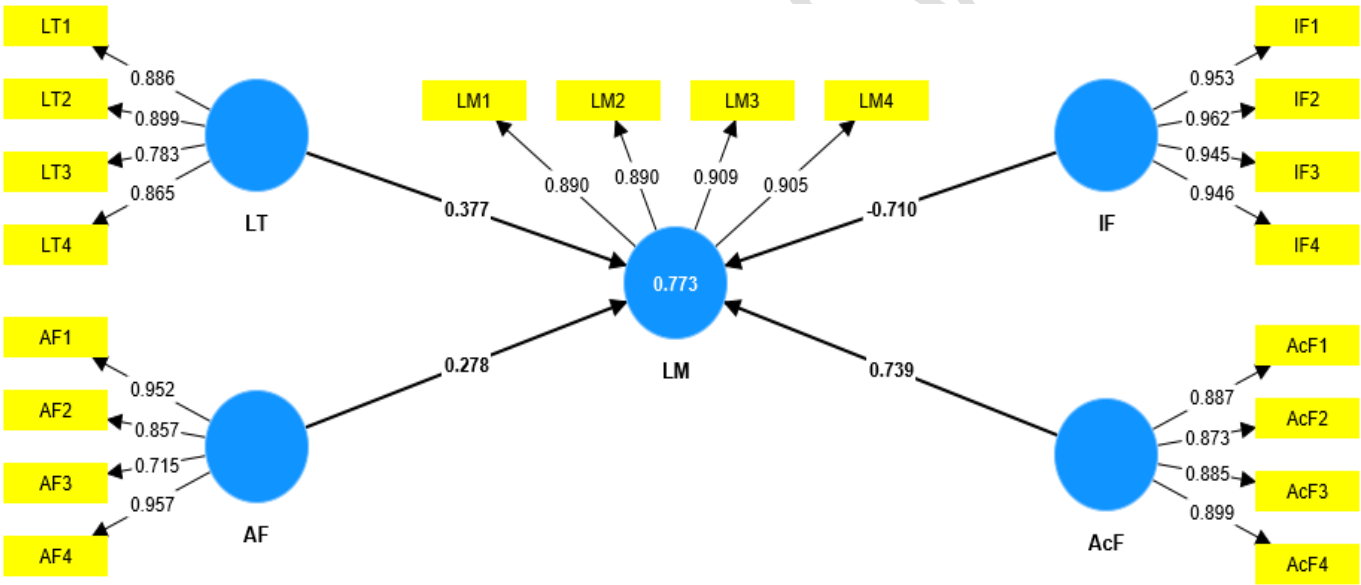

Fig 3. The Final SEM Model

LT – Teaching learning process, AcF – Academic factors, AF – Attractive factors, IF – Influencing factors, LM – Enrolment of learners to ODL course

4. CONCLUSION

In the present study, we explored the motivational factors that have influenced the learners to enrol in ODL certificate organic farming. In addition to the good reliability and validity, there is no collinearity within all the research facets, when the structural model was evaluated. The findings revealed that all the four dimensions such as Teaching – Learning process, Academic factors, Attractive factors and other influencing factors had a very significant relationship with enrolment of learners in ODL certificate course. Thus, overall, the model of this study is well – fitted. It could be inferred from the path relationship of the model of this particular study that Hypothesis 1 is valid, and the Teaching –

Learning process has significantly affected the enrolment of learners in ODL course ($\beta = 0.377$, $t = 4.352$, $p < 0.001$). Hypothesis 2 is valid, and the Academic factors have significantly affected the enrolment of learners in ODL course ($\beta = 0.739$, $t = 8.993$, $p < 0.001$). Hypothesis 3 is valid, and the Attractive factors have significantly affected the enrolment of learners in ODL course ($\beta = 0.278$, $t = 2.231$, $p < 0.05$). Hypothesis 4 is valid, and other influencing factors have significantly affected the enrolment of learners in ODL course ($\beta = -0.710$, $t = 5.553$, $p < 0.001$). Among all the motivating factors, Academic factor is revealed to have more significant influence on the enrolment of learners for ODL course, as the highest β value symbolizes the strongest effect of predictor variable towards dependent variable (Memon 2014). This might be due to easy access to advanced education, flexible and transparent curriculum, effective time utilization for the classroom and obligatory attendance to the course.

The contributions of this study are: It provides an empirical data evidence that Teaching – Learning process, Academic factors, Attractive factors and other influencing factors have motivated the learners to enrol in ODL organic farming certificate course in a blended learning system. Since, Organic farming is considered to be the need of the hour for sustenance, awareness about the benefits of the organic farming can be created by enrolling in certificate course, by which knowledge and adoption of the organic farming can be enhanced. This study gives notion for achieving high enrolment to the course by assessing the motivational factors that have significant influence on the enrolment of the ODL organic farming certificate course. According to the data analysis, the key to motivate learners to enrol in ODL course lies in the all the four constructs namely Teaching – Learning process, Academic factors, Attractive factors and other influencing factors and its operationalization.

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