

ENHANCING STUDENT INVOLVEMENT THROUGH SUPPORT SERVICES OFFERED:

CASE OF DISTANCE EDUCATION IN SRI LANKA

H. C. Dassanayake¹, B. Nishantha², W. A. R. Senevirathne³

¹*Department of Decision Sciences, University of Sri Jayewardenepura (Sri Lanka)*

²*Department of Management and Organizational Studies, University of Colombo (Sri Lanka)*

³*Department of Management Studies, The Open University of Sri Lanka (Sri Lanka)*

Abstract

Distance education encourages lifelong learning especially for those who have inner quest for higher education yet have missed the opportunity due to one or more reasons. Despite the popularity and demand, the system has been suffering from inherent and critical issues as higher student dropout rate, longer completion time of study programmes by students and comparatively low academic performance. Even though suggestions to overcome these issues by previous studies focus on services offered by distant education institutes, they alone cannot overcome them as it requires students to involve in academic matters since in distance education system, self-responsibility towards academic activities is crucial. Therefore, this paper investigates the impact of support services on student involvement in distance education in Sri Lanka and, examines whether this impact is mediated by student experience quality. For this purpose, quantitative research approach based on cross-sectional survey design was used. Data were collected using a structured questionnaire. Sample consisted of 400 undergraduates of the Open University of Sri Lanka, drawn using simple random sampling technique. Data which were analyzed using Structural Equation Modeling revealed that there is a direct impact of support services on student involvement. Mediating effect was substantiated where it partially mediates the impact of support services on student involvement. The validated model after data analysis is a novel model unique to the distance education. Further, findings facilitate in service designing process and thereby enable to address the prevailing issues in the distance education context. Thus, the study is enriched with number of implications in terms of theoretical, managerial and societal.

Keywords: Distance Education, Support Services, Experience Quality, Student Involvement

1 INTRODUCTION

Since the ancient time, teacher-teaching and student-listening was the primary mode of education. They used to gather at a specific location at a specific time which was pre-determined [1][2]. This arrangement immensely altered with the invention of educational delivery mechanisms powered by telecommunication and technological developments [3][4]. Prevailed temporal and geographical constraints for education were removed consequently by allowing students to make their learning decisions as what to learn, where to learn and how to learn [1]. Physical face of academic establishments was also altered and, online classes, study material and libraries became more popular among community [1]. This resulted in proliferation of study programmes based on Distance Education (DE) platform [2][4]. As the name stipulates, DE is a system of education or process of providing education or any instructional arrangement where teacher and student are geographically dispersed hence teaching behaviours are executed apart from learning behaviours [5][6][7][8]. Importantly, there is a gap between teacher and student where student is isolated and bear self-responsibility towards academic activities [7]. Students are provided with relevant study material and information to enable them to work by themselves. Therefore, they can study at their own time, at the place of their choice and without face to face contact with teachers and peers [9][10]. On the other hand, from the earliest days the rationale of DE has been to open opportunity for learners to pursue higher studies regardless of geographic, socio-economic or other constraints. Thus, a significant diversity in terms of age, family responsibilities, employment, aims and intentions among students is visible in DE system comparing to conventional education system [8][11]. These characteristics are unique to the DE system hence they demand for special course designing techniques, organizational as well as administrative arrangements [1][5][7][8].

Removing barriers to education has made DE as one of the most effective methods of pursuing education particularly for those who missed educational opportunities [12]. However, reviewing

scholarly work indicate that dropping out from study programmes without completing them and lacking excellent academic performance by students are comparatively higher in DE system comparing to conventional universities [12][13][14][15]. This is backed by student specific reasons as lacking responsibility towards own learning, inadequate understanding on DE system and difficulty of managing numerous responsibilities at once while learning as well as system specific features as depersonalized learning environment, poor interaction with peers and teachers and technological barriers[12][13][14][16][17][18].

Considering the Sri Lankan context, the Open University of Sri Lanka (OUSL) is the pioneer in DE which has an ever increasing demand and popularity for its study programmes since the inception [19][20][21]. Other than the OUSL, there are multiple institutes attached to state and private universities offering distance based study programmes in different disciplines. Despite the demand, popularity and importance as an effective method of education, above identified problems are visible in the Sri Lankan context at present. Recent statistics, particularly related to one of the most demanded study programmes offered by the OUSL, Bachelor of Management Studies (BMS) degree, it is apparent that graduation rate comparing to registration rate is significantly at a lower level, which is less than 10%. Further, since students are provided with the opportunity of extending their degree, majority of them do not complete the degree during the stipulated four years period. Specifically, among the graduates, small proportion has been able to secure a first class or second class upper division degree as many of undergraduates are looking for mere paper qualification [19].

Even though these problems have been observing over time, purpose of any DE provider would be enabling students to complete their study programmes within the permitted time with superior performance and, encouraging and facilitating them to climb up in the academic ladder to become professionals with strong academic background in their respective fields. Allowing dropout from any study programme restrains another students' potential of entering into the study programme since all the institutions are competing for scarce resources. Particularly, DE is for those who missed their Higher Education (HE) opportunities due to some reason or the other hence restraining student opportunities to enroll into study programmes can adversely affect their academic as well as professional development and finally wellbeing of the entire nation. Therefore, finding root causes and appropriate solutions are paramount important.

As emphasized by previous studies, suggestions to overcome prevailing problems in the DE context address aspects as teaching, teaching styles, teacher characteristics, assessment, facilities [12][13][16][22] as well as administrative, financial and advisory services and also opportunity for extra-curricular activities [12][13][23][24]. These are primarily the services offered by DE institutes which include both main services, i.e. core services and support services. However, in the DE context, majority are part time students who are employed and bear family and professional responsibilities. They expect hassle free learning processes and environments such that support services provided by institutes to augment the core services are comparatively more important as emphasized by previous studies in order to overcome the identified issues[8][11].

Nevertheless, self-learning is one of the main concerns in DE context where students have to play a significant role as they need to invest time and effort and get themselves involved in academic activities [7]. Thus, services offered by institutes alone cannot overcome above problems. As highlighted by theory of student involvement [25] and theory of student effort [26], academic involvement results in improved student learning and development whereas theory of student attrition says higher the academic engagement with the institute reduces the likelihood of student dropout [27]. Further, empirical studies have proved a significant relationship between student involvement and their performance as well as lower dropout rates [25][28][29][30]. Therefore, in order to overcome the prevailing identified problem in the DE context, making the student involved in academic matters is essential. Accordingly, student involvement can be identified as the mediator that links the input and output of the learning process where input is the services offered by DE institutes whereas output is the student success and retention [25]. Thus, this papers attempts to find out the impact of support services offered by DE institutes on student involvement in DE in Sri Lanka. On the other hand, DE is a service and every service encounter is accompanied by experiences where perception of the experience, i.e. experience quality, determines the behavior [31]. Therefore, this paper further investigates whether student experience quality mediates the above impact of support services on student involvement in DE in Sri Lanka. Accordingly, the two main research questions of this paper are as follows.

- Do the support services offered by DE institutes affect student involvement in DE in Sri Lanka?

- Does student experience quality mediate the impact of support services offered by DE institutes on student involvement in DE in Sri Lanka?

2 LITERATURE REVIEW

2.1 Support Services

Human needs and wants are satisfied through products offered by organizations. Even though products are traditionally categorized as goods or services, boundaries between them are blurring nowadays [32]. Products are offered as a bundle and, depending on the relative proportion they are categorized as either goods or services [32][33]. Accordingly, HE is categorized as a service; specifically, it is a professional service which caters the need of learning and acquiring knowledge, expertise and skills. It offers opportunities as the product to its customers, i.e. students, with the help of tangible and intangible elements as infrastructure and faculty expertise respectively [34][35][36]. HE service is provided by people for people, directed at student mind via intangible actions hence, it is a mental stimulus processing service which does not result in ownership of any physical item and benefits are therefore purely intangible. These benefits are unique to each student thus education service is heterogeneous even though all the students are offered with the same service [37][38].

Even though HE service is offered as a single package to students, who are the primary customers, it consists of number of tangible and intangible elements together which create a value for students. A service package is a combination of core and support services [37][39]. Core service are the basic problem solving benefits students seek or needs trying to fulfill and thereby the reason for service transaction [37][38][40]. Support services are supplementary to core services which provide additional benefits, enhance service value and contribute to differentiate the service from substitutes [37][38][40]. As presented in the service flower model [37], support services, i.e. peripheral services can further classified into facilitating services and enhancing services. Facilitating services facilitate the use of core services whereas enhancing services enhance the value and appeal of core services [37]. Accordingly, in the DE context enquiry; admission and pre-study advisory services; career guidance and counseling services; record keeping; provision of timely and relevant information; information management and; other administrative support can be identified as facilitating services. Similarly, enhancing services include multiple payment methods and related applications; financial aids; online registration and related online support; differentiated services for students with special needs of one sort or another and; extra-curricular and recreational facilities [41][42][43][44].

2.2 Student Involvement

Theory of student involvement defines student involvement as the amount of physical and psychological energy that the student devotes to college experience [25]. It is the ability of an individual to take charge of own learning by setting goals, identifying gaps in knowledge and addressing them through a self-monitoring process [10]. An academically involved student may participate in classroom discussions or study by him or herself hence student involvement can happen in both inside or outside the classroom [45]. Thus involvement can be observed and measured qualitatively or quantitatively with respect to each student [41]. Accordingly, student involvement is a behavioral phenomenon [25][46] and connected with the individual student. When a student is academically involved, he or she utilizes considerable amount of available time on reading course material; other relevant books; use library; logging to learning management system frequently; make separate notes; utilize their learning into day to day activities specifically in their work settings; attend lectures and; actively participate in classroom discussions. Also they interact with lecturers to discuss subject matters, academic plans and tend to look for feedback on their performance as well as other academic and career related progression. They also take part in collaborative learning with peers, spend time in studying and tutoring as well as sharing experience on study programmes and future plans with peers [25][45][47][48].

2.3 Student Experience Quality

Services are always accompanied by experience since they result in experiential effects [49]. Experience is the intangible takeaways from service encounters which originate from a set of interaction between the customer and a product, a company or part of its organization over several touch points in the service journey [50]. In HE, students bring certain characteristics with them and

interact with services provided by institute resulting a learning experience. As per student life cycle, student experience starts when a student decides to study at university and evolves through the phases as application, registration, teaching, learning and assessment, graduation and post qualification experience. It is not limited to class room learning or academic matters but covers whole experience they are going through including out of class non-academic aspects as student support and administrative activities as well as social aspects as forming new friendships, advising and mentoring [51][52]. The most developed aspects of customer experience measurements concern customer perceptions of parts of the service journey or of the overall customer experience based on their affective analysis of service which is known as customer experience quality [49][53]. On student point of view, student experience quality is the students' perceptions of direct and indirect inputs they receive from their college which indicate student's own view towards the variety of aspects as curricula, program delivery, quality of instruction, and learning support. If their expectations on these elements are met, they tend to rate it as a quality experience and if not other way around [54][55].

2.4 Impact of Support Services on Student Involvement

There are empirical studies that have identified consequences of student involvement rather than its antecedents particularly in the DE context [25][26]. Specifically, how student involvement is affected by services offered by institutes has not empirically investigated earlier hence this paper attempts to bridge the prevailing knowledge gap [25][56]. Theory of student involvement provides the theoretical foundation for this relationship. As one of the postulates of the theory emphasizes, if educational policies and practices of a HE institute are effective, it will result in increased involvement in academic activities by its students [25]. These policies and practices provide the ground rules for functionality of the institute such that what it offers to students and how it is offered are part of these policies and practices [57]. Therefore, it can identify that core and supportive services offered are included in and also influenced by these educational policies and practices of the institute. Even though previous studies have not explicitly identified impact of these support services on student involvement, by analyzing scattered findings it can identify that support services results in effective student involvement. For instance, facilitating services as administrative support and provision of timely information address alienation feature unique to DE whereas enhancing services as multiple and flexible payment methods aligning with modern technological innovations make it convenient for students to execute their studies without constraints. Since majority of learners in the DE system are working adults with family responsibilities, financial support in terms of scholarships or payment in installments can assist students in continuation of their studies. These support services provide a hassle free supportive learning environments and conditions for students where they feel committed and comfortable with the institution resulting higher integration with the academic activities [58][59][60][41][44]. Accordingly, based on theoretical and empirical grounds, following hypothesis is proposed in this paper.

H1: Support services offered by DE institutes positively influence on student involvement in DE in Sri Lanka.

2.5 Mediating Role of Student Experience Quality

Mehrabian and Russel model which is based on Stimuli-Organism-Response framework highlights that individual's feelings and emotions evoked by environmental stimuli ultimately determine their behavior [61]. Environmental stimuli are what people receive with their senses and after interpreting them on their own view, an emotional state expands into either one of pleasure or of arousal. Next the person responds to the emotional state through a behavior which can be either approach or avoidance related. An approach or positive related behavior indicates that the person possess a better feeling and vice versa. Hence it is apparent that emotions indicate a person's perception on stimuli and it will result in his or her behavior [61][62]. Accordingly, in the HE context, support services can be treated as stimuli received by students, more specifically contextual stimuli, and their involvement is the behavioral response to those stimuli which is mediated by their perception on learning experience, i.e. experience quality, gained from those services.

Students in the DE platform carry a diverse profile and their expectations on services offered are not merely limited to curriculum, pedagogy or assessment rather essentially related with how the DE institute responds to their needs and commitments [63]. Student perception on experience can be therefore influenced by additional and value added service provided [51]. Comprehensive orientation programmes, provision of information, guidelines and instructions facilitate smooth functioning of student activities. Financial, social or psychological support and guidance to students removes

external barriers to academic performance. Use of latest information and communication technology is seen as essential in creating stimulating learning environments characterized by features as blended learning, remote access to live lectures, access to digital libraries and networking of students, academic staff, research assistants and learning resources. Opportunities for extra-curricular activities also make student academic life more interesting and entertaining. Therefore, well designed these support services create emotional feelings outside the main functional solution which subsequently result in better perception regarding their student experience [51][56][42].

On the other hand, Entwistle and Tait have specifically identified a direct relationship between student perception and actions [64]. Positive perception on their learning experience influences desirable study behaviors which results increased student involvement. When meaningful learning experiences are missing, students often become disengaged and dissatisfied because they see no relevance in what they are learning. Accordingly, students with few chances to participate in meaningful learning experiences are denied the opportunity to integrate and apply the knowledge they have obtained in their classes. Therefore, contemporary research in student learning has also suggested a relationship between learning experience and study behavior. Better the student experience, i.e. when student perceive their learning experience as of high quality, it will therefore eventually increase their involvement in academic activities [45][64][65][66]. Therefore, based on these theoretical and empirical foundation following hypotheses are proposed to test the mediating effect of student experience quality on the relationship between support services and student involvement.

H2: Support services offered by DE institutes positively influence on student experience quality in DE in Sri Lanka.

H3: Student experience quality positively influence on student involvement in DE in Sri Lanka.

H4: Student experience quality mediate the relationship between support services offered by DE institutes and student involvement in DE in Sri Lanka.

Based on the above identified relationships therefore, the following conceptual framework is proposed by this paper which is subject to empirical validation through a rigorous data collection and analysis.

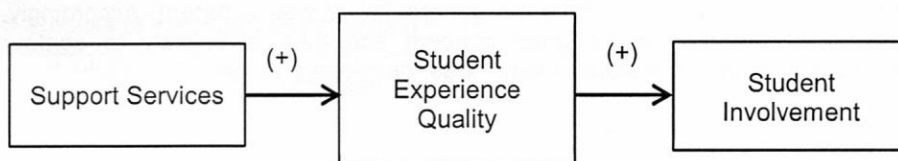


Figure 1: Conceptual framework.

3 METHODOLOGY

This study establishes relationships between study variables rather than in depth exploration hence can be categorized as an explanatory study. Since it looks into gathering data on student opinion regarding, data were collected at a specific time from the sample such that this is a cross sectional study considering the time horizon and followed the deductive approach as hypotheses were developed based on established theories. Study sample consisted of 400 undergraduates of the BMS degree programme drawn using the simple random sampling technique [67][68]. Based on the survey strategy, primary data were collected by using a structured questionnaire as the data collection tool. Study variables were measured at 5 point likert scale ranging 1=strongly disagree to 5=strongly agree by modifying and adapting to existing measures. Table 1 presents the operationalization of variables.

In order to overcome Common Method Variance (CMV), at the questionnaire designing stage procedural remedies were taken as ensuring respondent's anonymity in the attached cover letter and providing proper instructions to psychologically separate the measures [69]. Pilot study was undertaken and based on the feedback, required modifications were done. Using the online method, 700 questionnaires were distributed and reminder notes were sent to encourage the response. After removing incomplete questionnaires, coded questionnaires were fed to SPSS 20.0 to treat outliers and missing values. For the preliminary analysis 386 questionnaires were used. Multivariate assumptions of normality, linearity, multicollinearity and homoscedasticity were ensured as they are essential to conduct the Structural Equation Model. Since available measures were modified to suit to the study context, Exploratory Factor Analysis was performed with respect to each construct to test the factor structure and confirmed the unidimensionality of measures. Further, Reliability of measures

Table 1. Operationalization of study variables

Variable	Definition	Dimension	Literature Source
Support services	Supplementary to core services offered by DE institutes which provide additional benefits and enhance service value to students	Facilitating services Enhancing services	Jung (2012)
Student experience quality	Perceived superiority of holistic service encounter or the experience of the student		Bujisic (2014)
Student Involvement	Amount of physical and psychological effort devoted by a student for academic activities	Active participation Self-learning Student faculty interaction Learning with peers	National Survey on Student Engagement [NSSE], 2016

were tested by Cronbach's alpha value calculated for each dimension and construct. Since all the calculated values were greater than 0.6, high internal consistency was validated. Using AMOS 21.0 measurement and structural models were developed. Measurement model was tested with Confirmatory Factor Analysis. Model fit was improved using modification indices and removing factor loadings less than 0.45. Resulted Goodness-of-Fit (GOF) indices were above the cut-off values indicating that model provides a reasonably good fit. Convergent validity of measures was tested using Composite Reliability (CR) and Average Variance Extracted (AVE). Accordingly, CR and AVE values of all dimensions and constructs were greater than 0.60 and 0.50 respectively. Therefore, based on CR and AVE convergent validity of measures were established. Similarly, discriminant validity could also establish as AVE values for all the dimensions and constructs were greater than the corresponding squared correlation coefficients. Finally, Harman's single factor was calculated to test whether data are free of CMV. Result revealed the presence of six distinct factors with eigenvalue greater than 1.00 together accounted for 61.51% of the total variance; the first factor did not account for a majority of the variance (22.29%). Thus, no general factor was apparent. Accordingly, these results did suggest that CMV is not of great concern and thus is unlikely to confound the interpretations of results. Finally structural model was developed to test the study hypotheses [67][68][69][70].

4 DATA ANALYSIS

4.1 Sample Profile

The study sample consists of undergraduates of the BMS degree at the OUSL. They are attached to Colombo, Kandy and Matara regional centers where students attached to colombo regional center represents the highest participation in survey. Respondents are studying at all the levels in the degree programme and 45% of them are from level 6, such that expect that they are possessed with considerable knowledge on services offered by the university. Aligning to typical characteristics of DE, 67% of students are employed and most importantly 67% of the sample bear family commitments in terms of financial contribution to their families. However, contrary to previous findings, sample consists of only 33% of married students and majority of respondents are females accounting 60% of the sample.

4.2 Structural Model

Upon theoretical and empirical basis this paper proposed four hypotheses of which one is related to the direct impact of support services on student involvement whereas others test the indirect impact proposing student experience quality as the mediator. In order test these hypotheses structural model (Figure 2) was developed upon the validated measurement model and bootstrapping method was used to test the mediator effect. The corresponding GOF indices of the model is presented in Table 2.

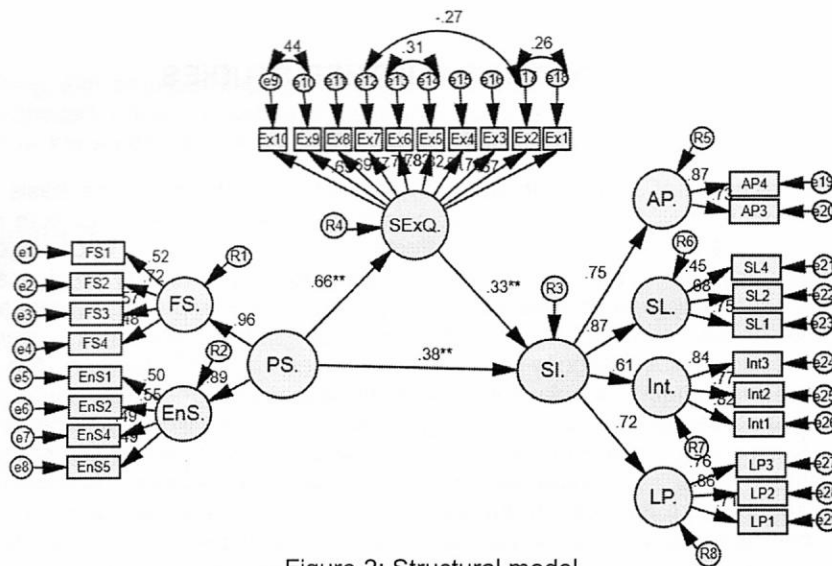


Figure 2: Structural model.

Table 2. GOF Indices of the Structural Model

CIMIN/DF	Absolute			Incremental			Parsimony
	GFI	AGFI	RMSEA	IFI	TLI	CFI	PRATIO
2.14	0.87	0.84	0.06	0.92	0.90	0.91	0.90

Accordingly, CIMIN/DF is less than 3, RMSEA is well below 0.08, PRATIO is 0.9. GFI, AGFI values are closer to 0.9 and IFI, TLI and CFI have reached 0.9. Thus, it could conclude that GOF of the structural model was at an acceptable level and thereby can use to test the four hypotheses of the study [70]. Following Table 3 summarizes the results of the hypotheses testing.

Table 3. Results of the Hypotheses Testing

Hypotheses	β	P	Result on Hypotheses
H1: Support services offered by DE institutes positively influence on student involvement in DE in Sri Lanka	0.38	0.00*	Supported
H2: Support services offered by DE institutes positively influence on student experience quality in DE in Sri Lanka	0.68	0.00*	Supported
H3: Student experience quality positively influence on student involvement in DE in Sri Lanka	0.33	0.00*	Supported
H4: Student experience quality mediates the relationship between support services offered by DE institutes and student involvement in DE in Sri Lanka	0.22	0.00*	Supported

Note: * $p < 0.05$.

Results indicate that all the four hypotheses are significant at 95% confidence level. Both the direct and indirect paths are therefore significant in the model. Thus, support services has a direct positive impact on student involvement as well as indirect positive impact on student involvement via student experience quality. Therefore student experience quality can be identified as a mediator on the impact of support services offered by DE institutes on student involvement. On the other hand, the path coefficient, β is lower in the indirect path than the direct path. This indicates that student experience quality partially mediates the impact of support services on student involvement. Accordingly, it can conclude based on the results of the hypotheses testing, if DE institutes offer better support services to their students it will improve student involvement in academic activities. Similarly, due to partial mediating effect, better support services will let students to perceive their learning experience as high of quality such that it will affect their behavior in terms of enhanced utilization of time and effort on academic matters resulting improved student involvement.

5 DISCUSSION, IMPLICATIONS AND FURTHER STUDIES

5.1 Discussion

The proposed direct impact of support services on student involvement on the basis of theory of student involvement as well as empirical findings, was substantiated in the Sri Lankan context. This aligns to previous findings as they highlight that effective supportive services encourage students to pay more attention on their academic activities [25][58][59][60]. Properly designed orientation programmes which enable students to have an overall understanding on the DE system and means of succeeding; administrative support as dissemination of timely information, well organized documentation processes, quick response and helpful non academic staff members; financial support specially payment in installments, scholarships and multiple payment methods; counseling services and psychological support as well as career guidance since majority are working students who need to balance their family life and work life while learning will create a hassle free learning opportunities and environments to students. Further, opportunities for extra curricular activities as participation in student associations and sports make the student life more interesting. When these supportive services are effectively designed and organized, it eliminates the need of students to pay extra attention on non academic matters, make the learning process convenient and interesting without extra burden which bridge the detached student closer to the institute. Due to hassle free convenient and interesting learning environment students tend to pay more attention on their studies and perform well.

The proposed mediating effect of student experience quality on the impact of support services on student involvement which is based on the Mehrabian and Russell Model was validated in the Sri Lankan context. Even though this impact has not been previously explicitly tested in the DE context, considering the scattered findings on elements of support services provided by DE institutes it can identify that better services result in better evaluation by students regarding their experience. Thus, aligning with previous findings, it can conclude that in order to create an actual value of student experience requires proper construction not only main services but also supportive services offered by the education institute [52]. Similarly, these findings are consistent to previous findings conducted in other service contexts as in restaurants, hotels and transportation [71][72][73]. In the broadest sense they have identified that service quality, product quality, pricing and price fairness, service environment, processes, service convenience and employees are the key drivers of customer experience quality. Accordingly, provision of information, feedback procedures, responsiveness and quick service provision, use of multiple channels of customer interaction, use of latest technologies, convenient payment processes and value added services as playing music in service location are identified as drivers of customer experience quality which can be categorized as support services [71][72][73]. Such that, based on findings of the previous studies it can also affirm that support services are linked to customer experience quality.

On the other hand, due to unique characteristics of students in the DE platform as employment status and family commitments, they prefer to have a hassle free learning environment such that provision of these supportive services makes the service they receive more appealing. This can be mainly since people are more attractive nowadays towards the additional benefits they receive other than the basic service. Even though they are not essential to fulfill the basic requirement, people expect service provider to make the service they receive more unique, memorable and convenient by accompany them with these additional services. If they are provided with such service they tend to evaluate their experience as superior. Reasons for these changes can be attributable to shift in socio-demographic factors particularly improvements in life style which is influenced mainly by the technological developments.

When considering the impact of student experience quality on student involvement, study findings are consistent with previous studies. Specifically, Klaus and Maklan [74] as well as Entwistle and Tait [64] have concluded a direct relationship between student perception and actions while Ning and Downing [75] have concluded that student perception of learning experience directly affect their study behaviors. Since student involvement is a behavioral phenomenon, therefore, study findings convey a consistence with existing knowledge. Similarly, in other service industries also it has proven that customer perception drives their behavior and behavioral intentions as repeat purchase, word of mouth communication as well as loyalty and satisfaction [49][76].

Even though mediating impact of student experience quality has not explicitly tested in previous studies, based on available knowledge in DE as well as in other service sectors therefore, it is apparent that study findings represent a consistent with existing knowledge. Accordingly, findings of

this study along with previous findings fulfill the requirements to consider a variable as a mediator. Since the proposed novel mediating impact was substantiated by the study findings; this study contributes new knowledge and extends the existing knowledge base specific to DE in the Sri Lankan context.

5.2 Implications

Findings of this study are enriched with theoretical as well as managerial implications. The validated theoretical framework of the study was developed by combining two theories in order to address the prevailing issues in the DE context. Particularly, much of the previous studies have focused on consequences of student involvement rather than its drivers. Also the established mediating effect of student experience quality has not been previously tested in the study context. Therefore, while addressing these prevalent gaps in the existing knowledge base, the validated theoretical model of the study can be identified as a novel contribution which is unique to the DE context. On the other than even though previous studies have emphasized on drop out and lower academic performance as problems in the DE context, they have not addressed how contextual elements as services offered by institutes along with student contribution can overcome the identified problems. Therefore, the findings bridge this empirical gap in the knowledge base.

Most importantly, the findings are significant in terms of managerial or practical means. They provide valuable input to the institutes specifically in service designing and redesigning. Since support services can make positive impact upon utilization of time and effort on academic activities by students, institutes need to ensure that they provide all the relevant, comprehensive and up-to-date services in addition to their core services as teaching, learning and evaluation. Particularly, due to existence of partial mediating effect, it is essential to ensure that services provided are perceived by students as of high quality. Even though quality is a subjective phenomenon, designing services considering industrial requirements, student demand and their priorities, as well as principles of service designing along with educational theories and philosophies will enable institutes to deliver a quality service that encourage students towards academic involvement. Thus, the study findings provide significant inputs for educational policy developments and thereby making the service offered by these institutes more appealing. Such managerial decisions will enable to overcome identified critical and inherent issues in the system.

However as a whole, findings of the study have societal impact as educated citizens are a real asset to any nation. Educating citizens therefore influence on their well-being and thereby the development of the entire nation. It is a known fact that DE is an effective mean of offering academic programmes for those who missed higher studies or those who have inner quest for higher studies. Therefore, it is essential to identify and provide solutions to the problems of the DE system to make sure that intended benefits of it are reaped. Findings of this study therefore provide important input to decision makers in designing study programmes in a way that enhances student involvement in academic activities. On one aspect this enables students to attain academic qualifications while enhancing their knowledge and enabling them to make better contribution to professional as well as personal life. On the other hand DE institutes would be able to make better decisions by allocating their scarce resources in a productive manner for the betterment of the nation. In addition, higher student performance and reported lower dropout rates resulting from better services offered by DE institutes will positively affect the goodwill of the institute and create market recognition as well as confidence among potential students. Thus, findings emphasize on need of reconsidering about DE system as a whole in order to make it more beneficial to the wider society and thereby making the nation literate.

5.3 Further Studies

Despite the study implications there are number of limitations that can be addressed in future studies. The sample of the study consisted of undergraduates of the BMS degree offered by the OUSL. Since there are plenty of other institutes that offer distance based study programmes in different disciplines, future studies can select a sample to incorporate a wider diversity in the sample which can gain more insight into the study phenomenon. On the other hand, there is high diversity among students in the DE system due to removal of barriers to education. Even though all are offered with the same services, their perception may be influenced by individual characteristics as their employment status, age or own study intentions and desires. Therefore, the impact of support services offered by institutes on student experience quality can be affected by these student characteristics such that in future studies they can be incorporated as moderating variables to the validated theoretical framework. Similarly, this study gathered data from students which present their opinion on study variables. Future studies can

gather service provider opinion, particularly on services they offer and thereby can perform a gap analysis in order to identify the unmet desires of student which will be helpful in service designing process.

REFERENCES

- [1] Sachar, M. & Neumann, Y. (2003). Difference between traditional and distance education academic performances: A meta analytic approach. *International Review of Research in Open and Distance Learning*, 4(2).
- [2] O'Malley, J., & McCraw, H. (1999). Students perceptions of distance learning, online learning and the traditional classroom. *Online Journal of Distance Learning Administration*, 2(4).
- [3] Wang, C., & Liu, Z. (2003). Distance education: Basic resources guide. *Collection Building*, 22(3), 120-130.
- [4] Gunewardene, G. I. C., & Lekamge, G. D. (2010). Open and distance learning transformed: Possible adaptations to suit special contexts. *OUSL Journal*, 6, 22-4.
- [5] Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). E-learning, online learning and distance learning environments: Are they the same? *Internet and Higher Education*, 14(2), 129-135.
- [6] Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2008). *Teaching and Learning at a Distance: Foundations of distance education* (4th ed.). Upper Saddle River, N.J: Pearson/Merrill Prentice Hall.
- [7] Woolls, B., Dowlin, K., & Loertscher, D. (2002). Distance education: changing formats. *The Electronic Library*, 20(5), 420-424.
- [8] Rumble, G. (1989). Open learning, distance learning and the misuse of language. *Open Learning: The Journal of Open, Distance and e-learning*, 4(2), 28-36.
- [9] UNESCO. (2002). Open and distance learning: Trends, policy and strategy considerations. France: Author.
- [10] Bates, A. (1995). Technology, open learning and distance education. London: Routledge.
- [11] Maxwell, L. (1995). Integrating open learning and distance education. *Education Technology*, 35(6), 43-48.
- [12] Attri, A.J. (2012). Distance education: Problems and Solutions. *International Journal of Behavioral Social and Movement Sciences*, 1(4), (42-58).
- [13] Dadigamuwa, P. R., & Senanayake, S. (2012). Motivating factors that affect enrolment and student performance in an ODL engineering programme. *The International Review of Research in Open and Distance Learning*, 13(1).
- [14] Willging, P. A., & Johnson, S. D. (2004). Factors that influence students' decision to drop out of online courses. *Journal of Asynchronous Learning Networks*, 8(4), 105-118.
- [15] Li, G., & Killian, T. (1999). *Students who left college: An examination of their characteristics and reasons for leaving*. Paper presented at the 39th Annual Forum of the Association for Institutional Research, Seattle. Retrieved from <http://files.eric.ed.gov/fulltext/ED433779.pdf>
- [16] Farajollahi, M., & Moenikia, M. (2010). The study of relation between students support services and distance students' academic achievement. *Procedia - Social and Behavioral Sciences*, 2(2), 4451-4456.
- [17] Cui, G. A. (2013). *Effects of students' characteristics and locus of control on their satisfaction with online distance education experience* (Doctoral dissertation, Virginia Polytechnic Institute and State University). Retrieved from <https://vtechworks.lib.vt.edu/handle/10919/23860>
- [18] Battalio, J. (2009). Success in distance education: Do learning styles and multiple formats matter? *The American Journal of Distance Education*, 23, 71-87.
- [19] The Open University of Sri Lanka (2016). *Bachelor of management studies degree 2016*. Nawala: Author.

- [20] Wasala, R. A. (August 28, 2010a). Open and distance learning initiatives in Sri Lanka - I: *The Island (Sri Lanka)*, p. 10.
- [21] Wasala, R. A. (September 3, 2010b). Open and distance learning initiatives in Sri Lanka - II: *The Island (Sri Lanka)*, p. 11.
- [22] Edge, W. D., & Loegering, J. P. (2000). Distance education: Expanding learning opportunities. *Wildlife Society Bulletin*, 28(3), 522-533.
- [23] Lowes, S., Lin, P., & Wang, Y. (2007). Studying the effectiveness of the discussion forum in online professional development courses. *Journal of Interactive Online Learning*, 6(3), 181-210.
- [24] Peters, O. (1999). Teaching and learning in distance education: Analysis and interpretations from an international perspective. London: Kogan Page.
- [25] Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- [26] Pace, C. R. (1984). Measuring the quality of college student experiences: An account of the development and use of the college student experiences questionnaire. Los Angeles: University of California, Center for the Study of Evaluation. Retrieved from <https://eric.ed.gov/?id=ED255099>
- [27] Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155-187.
- [28] Fischer, M. J. (2007). Settling into campus life: Differences by race/ethnicity in college involvement and outcomes. *Journal of Higher Education*, 78(2), 125-161.
- [29] Hoffman, J. L. (2002). The impact of student co-curricular involvement on student success: Racial and religious differences. *Journal of College Student Development*, 43(5), 712-739.
- [30] House, J. (2000). The effects of student involvement on the development of academic self-concept. *Journal of Social Psychology*, 140, 261-263.
- [31] Robbins, S. P., & Judge, T. A. (2013). *Organizational behavior* (15th ed.). New Jersey: Prentice Hall.
- [32] Perera, C. (2009). *Operations management: Concepts and application*. Sri Lanka: Godage International Publishers.
- [33] Wise, R., & Baumgartner, P. (1999). Go Downstream, the new profit imperative in manufacturing. *Harvard Business Review*, 28(1), 89-96.
- [34] Raj, D. M. A., Raguraman, M., & Veerappan, R. (2013). Marketing of educational services: A new strategy for customer satisfaction. *International Journal of Scientific Research and Management*, 1(8), 435-440.
- [35] Nyangau, J. Z., & Bado, N. (2012). Social media and marketing of higher education: A review of the literature. *Journal of the Research Center for Educational Technology*, 8(1), 38-51.
- [36] DeShields, O. W., Kara, A., & Kaynak, E. (2005). Determinants of business student satisfaction and retention in higher education: Applying Herzberg's two-factor theory. *International Journal of Educational Management*, 19(2), 128-139.
- [37] Lovelock, C. & Wirtz, J. (2013). *Services Marketing: People, Technology & Strategy*. Upper Saddle River, New Jersey: Prentice-Hall.
- [38] Canterbury, R. M. (1999). Higher education marketing: A challenge. *The Journal of College Admission*, 16(5), 22-30.
- [39] Roth, A. V., & Menor, L. J. (2003). Insights into service operations management: A research agenda. *Production and Operations Management*, 12(2), 145-164.
- [40] Gronroos, C. (2008). Service logic revisited: Who creates value? And who co-creates? *European Business Review*, 20(4), 298-314.
- [41] Foreman, E. A. (2013). Using involvement theory to examine the relationship between undergraduate participation in extra-curricular activities and leadership development. *Journal of Leadership Education*, 12(2), 56-73.

- [42] Jung, I. (2012). Asian learners perception of quality in distance education and gender differences. *The International Review of Research in Open and Distance Learning*, 13(2), 1-25.
- [43] Douglas, J., Douglas, A., & Barnes, B. (2006). Measuring student satisfaction at a UK university. *Quality Assurance in Education*, 14(3), 251-267.
- [44] Kretovcis, M. (2003). The role of student affairs in distance education: Cyber-services or virtual communities. *Online Journal of Distance Learning Administration*, 6(3). Retrieved from <http://www.Westga.edu/~distance/ojdl/fall63/kretovcis63.html>
- [45] Sidelinger, R. J., & Booth-Butterfield, M. (2010). Co-constructing student involvement: An examination of teacher confirmation and student to student connectedness in the college classroom. *Communication Education*, 59(2), 165-184.
- [46] Butzow, J. W., & Williams, C. M. (1977). Towards a definition of involvement: Translating a humanistic concept into a behavioral model. *Science Education*, 61(4), 479-490.
- [47] Pass, M. W. (2013). Quality of student effort: Improving through achievement mastery and psychological needs. *Atlantic Marketing Journal*, 2(3), 43-59
- [48] Campbell, L. M. (2012). *A study of student involvement variables in higher education: Their influence on success on the uniform CPA examination* (Doctoral dissertation, University of Toledo). Retrieved from <http://utdr.utoledo.edu/cgi/viewcontent.cgi?article=1299&context=theses-dissertations>
- [49] Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout customer journey 1. *Journal of Marketing*, 80(6). Retrieved from <https://www.researchgate.net/publication/304029900>
- [50] Walter, U., Edvardsson, B., & Ostrom, A. (2010). Drivers of customers' service experience: A study in the restaurant industry. *Managing Service Quality*, 20(3), 236-258. doi:10.1108/09604521011041961
- [51] Arambewela, R., & Maringe, F. (2012). Mind the gap: Staff and postgraduate perceptions of student experience in higher education. *Higher Education Review*, 44(2), 63-84.
- [52] Ng, I., & Forbes, J. (2008). Education as service: The understanding of university experience through the service logic. *Journal of Marketing for Higher Education*, 19(1), 38- 64.
- [53] Jutter, U., Schaffner, D., Windler, K., & Maklan, S. (2013). Customer service experience: Developing and applying a sequential incident laddering technique. *European Journal of Marketing*, 47(5), 738-768.
- [54] Neumann, Y., & Neumann, E. F. (1993). Quality of learning experience and students' college outcome. *International Journal of Educational Management*, 7(1), 4-10.
- [55] Rautopuro, J., & Vaisanen, P. (2001). Non-Traditional students at university: A follow up study of young and adult students' orientations, satisfaction and learning outcomes. Paper presented at the European Conference on Educational Research, Lille. Retrieved from <http://www.leeds.ac.uk/educol/documents/00001880.htm>
- [56] Fraser, B.J., Walberge, H. J., Welch, W. W., & Hatties, J. A. (1987). Synthesis of educational productivity research. *International Journal of Educational Research*, 11(2), 147-252.
- [57] Bell, L., & Stevenson, H. (2006) *Education policy: Process, themes and impact*. London: Routledge,
- [58] Foubert, J. D., & Grainger, L. (2006). Effects of membership in clubs and organizations on the psychosocial development of first year and senior college students. *Journal of Student Affairs Research and Practice*, 43, 166-182.
- [59] Huang, Y., & Chang, S. (2004). Academic and co-curricular involvement: Their relationship and the best combinations for student growth. *Journal of College Student Development*, 45(4), 391-406.
- [60] Pascarella, E. T. & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco: Jossey-Bass

- [61] Billings, W. L. (1990). *Effects of store atmosphere on shopping behavior* (Master's thesis, Illinois Wesleyan University). Retrieved from http://digitalcommons.iwu.edu/busadmin_honproj/16
- [62] Robbins, S. P., & Judge, T. A. (2013). *Organizational behavior* (15th ed.). New Jersey: Prentice Hall.
- [63] Tan, A., Muskat, B., & Zehrer, A. (2016). A systematic review of quality of student experience in higher education. *International Journal of Quality and Service Sciences*, 8(2), 209-228.
- [64] Entwistle, N., & Tait, H. (1990). Approaches to learning, evaluations of teaching, and preferences for contrasting academic environments. *Higher Education*, 19, 169-194.
- [65] Sadlo, G., & Richardson, J. T. E. (2003). Approaches to studying and perceptions of the academic environment in students following problem based and subject based curricula. *Higher Education Research and Development*, 22, 253–274.
- [66] Lizzio, A., Wilson, K., & Simons, R. (2002). University students' perception of the learning environment and academic outcomes: Implications for theory and practice. *Studies in Higher Education*, 27(1), 27-52.
- [67] Saunders, M., Lewis, P., & Thornhill, A. (2011). *Research methods for business students*. (5th ed.). India: Dorling Kindersley India Pvt. Ltd.
- [68] Sekaran, U., & Bougie, R. (2014). *Research methods for business: A skill building approach* (5th ed.). India: Wiley India Pvt. Ltd.
- [69] Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- [70] Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis* (7th ed.). Chollerstrasse: Prentice Hall.
- [71] Fatma, S. (2014). Antecedents and consequences of customer experience management : A literature review and research agenda. *International Journal of Business and Commerce*, 3(6), 32-49.
- [72] Yuksel, A., & Yuksel, F. (2016). Measurement of tourist satisfaction with restaurant services: A segment based approach. *Journal of Vacation Marketing*, 9(1), 52-68. doi:
- [73] Tombs, A., & McColl-Kennedy, J. R. (2003). Social-Servicescapes conceptual model. *Marketing Theory*, 3(4).
- [74] Klaus, P., & Maklan, S. (2012). EXQ: a multiple-item scale for assessing service experience. *Journal of Service Management*, 23(1), 5-33.
- [75] Ning, H. K., & Downing, K. (2011). The interrelationship between student learning experience and study behavior. *Higher Education Research and Development*, 30(6), 765-778.
- [76] Kim, H. S., & Choi, B. (2016). The effects of three customer-to-customer interaction quality types on customer experience quality and citizenship behavior in mass service settings. *Journal of Services Marketing*, 30(4), 384-397.
- [77] Bujisic, M. (2014). *Antecedents and consequences of customer experience in beverage establishments* (Doctoral dissertation, University of Central Florida). Retrieved from http://etd.fcla.edu/CF/CFE0005309/Dissertation_Milos_Bujisic_June_30.pdf
- [78] NSSE – National Survey on Student Engagement. (2016). Retrieved from http://nsse.indiana.edu/pdf/Els_and_HIPs_2015.pdf