
Implementation of blended learning in a higher education institution in Albania: An analysis of factors that affect students' learning experience

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Abstract: All levels of education, and especially higher education institutions, are transforming their methods to follow the dynamics of technology and labour market demands. Blended learning is emerging as an effective and low-risk strategy to improve quality, as well as to make education more accessible. This research aims to discuss the introduction of blended learning in a higher education institution in Albania, and to examine the effect of the blended approach in students' learning experience, focusing on their satisfaction from both online and traditional elements of a course. The results show that satisfaction from online components has an important impact on students' learning experience in a larger proportion than classroom components.

Keywords: Blended learning, learning experience, course satisfaction, learning management system, student satisfaction, higher education

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1 Introduction

Blended learning is spreading through all levels of education around the world, compelling educators to challenge existing theories of teaching and learning in higher education. Indeed, higher education institutions are challenged to position their structure to meet the interaction need of determined students and their growing expectations for higher quality learning experiences and outcomes. Society has been transformed by the expansion of information and communication technologies, thus there is significant reason to claim it will be one of the defining transformative innovations in higher education.

The internet has become the main provider of information to teachers, learners and academics, offering a huge stock of knowledge. This changes the context of education. In order to effectively make use of the vast information and transform it into a stock of skills and knowledge, transformation of learning environments in higher education settings is important to ensure that the benefits are fully reached. A source of transformation is created from the ability to be both online learners and face – to – face learners, as well; thus, being connected to a community of learners at anytime and anywhere, without limitations of time, place, or situation.

Albania is living in an era of accelerating change, not only regarding technology development, but also in relation to economic and social development. The connection between education and employment will be more indispensable. Labour markets and job profiles are changing more frequently, forcing people to adapt and respond to new requirements. It is a well-accepted view that modern economies and sustainable economic growth are driven by knowledge, hence the term “knowledge economy”. This means that schools and universities should equip students with skills needed to compete in the job market.

In regard to a growing tech-based labour market, higher education institutions in Albania are considerably lagging behind in the adaptation of new methods of learning, erring on the conservative side of approaching education. The quality of education is certainly not impressive as well. According to (European Commission, 2016), the rapid expansion in the higher education system over the last decade has raised issues about its quality. This, along with identified problem of corruption, limited capacity of professors in delivering high quality education and in conducting research, outdated teaching methodology, and lack of equipment, indicate that there are serious quality issues that need to be addressed.

Following the growing influence of technology in education, the purpose of this paper is to study the effectiveness of blended learning in a higher education institution in Albania, with the particular case of the Faculty of Economy at the University of Tirana. It aims to discuss the introduction of an LMS, combined with traditional learning methods, and to examine the effect of such a blended approach in the students’ learning experience, focusing on their attitude and perceptions. Blended learning in schools has proven to be an effective and low-risk strategy fostering the improvement of education quality, as well as aligning universities with forthcoming technological developments. As such, a careful first assessment needs to be conducted.

The structure of this paper is organized as follow: Section 2 discusses blended learning research reviews and investigates factors that influence learning experience in higher education institutions with the introduction of Learning Management Systems. Section 3

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proposes research hypotheses and Section 4 presents the research methodology. The statistical analysis and results will be shown in Section 5 and conclusions will be drawn in Section 6.

2 Literature Review

2.1 Blended Learning

As knowledge has become the most intensive way of production in almost all types of work (Klaus, Schwab, Xavier, 2009), school education is being used by policy-makers as the engine of a knowledge-based economy. Indeed, as national and international reports, policies and strategic plans highlight, there are intersections between economic, scientific, technology and innovation policy agendas. Since the late 1990s, numerous empirical and theoretical models for creating and implementing online learning environments have been proposed and tested (Hannafin, M., Land, S., & Oliver, 1999; David Jonassen, 1998; Morrison, 2003). However, by recognizing both the advantages and disadvantages of online and traditional models of learning, many researchers (Christensen, Horn, & Staker, 2013; Garrison & Kanuka, 2004; Graham, 2006; Roseth, Akcaoglu, & Zellner, 2013) have come up with a hybrid form that includes both face-to-face and online learning called “blended learning”. The term “blended learning” represents a wide spectrum of tools and pedagogical sources but theoretically, it refers to distance education that emphasizes flexibility of time, place, and pace of student learning. The blended learning model emphasizes active learning and a reduction of classroom time, based on the concept of “hybridization”, which refers to the combination of two different parts to produce a third result, in this case online and face-to-face learning (Vaughan, 2007). When they are successfully combined, the potential result is a highly conducive educational environment. Staker and Horn (2012) define blended learning as the “time a student learns, at least in part, at a supervised brick-and-mortar location away from home, and, at least in part, through online delivery with some element of student control over time, place, path, and/or pace”.

Blended learning is a new innovative methodology of education that aims to combine traditional and online ways of learning. Designing a blended course has to incorporate many stakeholders and contextual settings. Integrating technology to facilitate the educational process and to expand the reach and scope is important in today's digital context. Many authors (Picciano, Seaman, Shea, & Swan, 2012; Stacey & Gerbic, 2007; Szilagyí & de la Calle, 2006; Watson, 2008) argue that online and blended learning have experienced significant rates of growth in recent years, and further expansion is anticipated. Blended learning is seen as an instrument that helps students express their ideas, share them with others, develop critical thinking and cognitive learning (Gardiner, 1998).

In developing a blended learning environment, it is important to take into account the initial challenge of a new ecosystem, resistance toward change, the initial uncertainty of using technology in class that characterizes both teachers and students; as it is important to emphasize that the blended learning process, not only requires educators to reconsider their pedagogical practices, but also requires students to acquire new learning skills (Collopy & Arnold, 2009). To expand their knowledge, they need to adopt a more problem-solving approach that emphasizes understanding. As Campbell (2006) noticed, not only teachers,

but also students will have to reconsider and change their attitudes, beliefs, behaviours, perspectives, and habits to be able to adapt to the use of technology efficiently. Bielaczyc and Collins (1999) noted that students and teachers react to new educational technologies with diverse behavioural attitude, which creates a case for assessing both students' and teachers' perceptions regarding technology use.

Staker & Horn (2012) define four models of blended learning:

1. Rotation model, which consists of students who rotate between online learning and face-to-face learning, either on a predetermined schedule or at the instructor's discretion. This model contains online learning station and some other sub-models like, Station Rotation, Lab Rotation, Flipped Classroom and Individual Rotation. In this model, students learn primarily on campus.
2. Flex model, which consists of classes divided into online and offline components. Instruction though, is primarily provided online. Here, students change learning modalities on a customized or more flexible schedule that uses online learning as its cornerstone.
3. Self-Blend model is an addition to traditional courses at a "brick-and-mortar campus" where students take one or more courses online. Unlike full-time online learning, in this model, students may choose between online and offline courses at their convenience.
4. Enriched-Virtual model, which consists of mostly online learning and students do not necessarily come to campus every day.

If we analyse learning environments, it is important to understand their determinants. Richard Millwood (2013) has developed a concept map with learning theories. To highlight some differences between a passive and an active approach to teaching and learning in this report, we will discuss objectivist and constructivist learning theories. There are many authors that have studied and compared objectivist vs. constructivist approaches in classroom environments (Cronjé, 2006; D. H. Jonassen, 1991; Lister & Leaney, 2003; Miguel Baptista, 2003; Moallem, 2001; Vrasidas, 2000).

To explain the objectivist approach, in this article, we refer to Jonassen and Land (2000) as they deliver a more comprehensive definition on the topic. Teachers think that during the learning process they have to effectively communicate ideas to learners by improving message clarity. In this context, teachers control the learning process. Students, on the other hand, are mandated to learn what teachers tell them, stemming from the commonly-accepted assumption that "teachers know it better". In this learning environment, students have no need, desire, motivation, and interest whatsoever, to learn what teachers want them to, and it is difficult for students to be creative and develop new learning skills. When implementing instruction, teachers should inform learners about the goals and objectives, assess learning fundamentals, provide incentives, provide learning guidance, stimulate performance by providing feedback, and evaluate learning outcomes (Chen, 2007). This frequently used process is described by the author as an objectivist, teacher-centered approach to instructional design and practice. Many instructional design models have been developed based on this approach.

Different from the objectivist approach, the constructivist one puts more emphasis on students. Constructivist learning environments are student-centred environments where students control the learning process (Marra, 2005). Therefore, the students are those who set learning goals and objectives by creating an open and flexible learning environment. The teachers' role in this environment is to direct students to resources, to find answers, and give them time to think and develop new ways on how to fix a problem and express

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their ideas (Jacqueline Brooks, 2001). In the constructivist approach, students are projected to be more focused on their learning experience and administer their learning tasks, as well. Compared with typical, objectivist-based instruction, constructivist-based teaching and learning requires more time and effort from both the instructor and students (Chen, 2007).

However, a blended learning methodology has its strengths and flaws. It is difficult to design an effective blended learning system. Teachers and students, indeed, need more time to prepare for a fruitful implementation of such methodology. The main challenge remains the set of skills needed by the instructors to design and redesign the course with the online and offline elements that would be more suitable for diverse students to gain understanding of the course, and moreover, to stimulate engagement, critical thinking, and interaction. Teachers need more than a module and a methodology to build these classes, they need to make an essential connection between theory and practice. (Koçi et al., 2015) explain that blended learning provides multiple opportunities to enhance engagement and collaboration, to deliver information and to supply theories in different structures to facilitate students in their knowledge absorption. One of the major drawbacks according to Lothridge, Fox, & Fynan, (2013) is the lack of an established standard to regulate course length for theoretical and practical elements, which makes the course designer responsible for the analysis of the environment to determine the learning style and subject delivery method.

What makes it harder for lectures to implement blended learning is the requirement of decision concerning which elements need to be supplied with personal interaction and which can be best delivered online (Aldrich, 2004). Even when technology is used in classrooms, students expect for the instructor to provide some guidance (Dahlstrom et al., 2013), therefore it is essential for instructors to ensure students know to adequately use online technology and be in compliance with the purpose of the course. A more important concern is when students lack technological skills, in which case, interaction might be limited and they might feel overwhelmed by the amount of information (Draffan & Rainger, 2006).

Within some regions, institutions are resistant to changes in traditional methods and use of technology (Hamuy & Galaz, 2010). The human factor, in all cases, appears as the most important. There are other cases when instructors are conservative in their methods and refuse to use technology, or in other cases, refuse to engage in effectively using it (Albion, Tondeur, Forkosh-Baruch, & Peeraer, 2015). On the other hand, many others have little training and experience using online tools in the classroom, and feel that they will not be able to use them effectively to meet students' needs (Haydn, Stephen, Arthur, & Hunt, 2012). Well-designed incentives increase teacher effort and student achievement but low-skilled teachers need specific guidance to reach minimally acceptable levels of instruction (Contreras & Rau, 2012).

2.2 Learning management system

Owning to technology, nowadays knowledge is more readily available than ever before, not only for students but also for teachers. According to Prensky (2001), today's students have changed radically, so they are no longer the people our educational system was designed to teach. Learners today are immersed in a variety of educational experiences. Therefore, teachers need to transform learning in their classrooms from a traditional model to a student-centred one, in a way that makes students more involved in the classroom. In

order to do this, schools have to create an environment when students can be more responsible for their own learning, and can develop analytic and cognitive skills (Gillani, 2011). To manage this student-centred environment, it is important to implement a learning management system (Naddabi et al., 2007).

“A Learning Management System (LMS) is a software application for the administration, documentation, tracking, reporting and delivery of e-learning education courses or training programs” (Ryann K. Ellis, 2010). There is a gap in literature in properly defining the concept of Learning Management System, maybe because of its nature or the fact that essentially it is an evolution of various technologies used over the years. Parr & Fung, (2006) argues that there are some terms used for what they call “drill-and-practice programs”, such as, computer-managed instruction (CMI) (Baker, 1978), computer-based instruction (CBI) (Clark, 1985) and computer-assisted instruction (CAI) (Levy, 1997; Niemiec & Walberg, 1987). Learning management system is a concept that emerged directly from e-Learning. LMSs were first introduced in the 1990s (Davis, Carmean, & Wagner, 2009) “designed to help educators create and deliver content, monitor student participation, and assess student performance”.

Teachers are, in fact, able to deliver much more through an LMS, as they are able to design and incorporate course materials, set learning objectives, upload subjects and assessments, design tests for students and evaluate their individual progress. Through it, they can guide students in compliance with learning objectives and subject timelines. One of the main features is the tracking of individual progress, as an LMS is accompanied by tools that analyse performance in assessments and tests. It also creates the ability for the instructor and the learner to better communicate, an important element that enables instructors to monitor progress, and learners to receive feedback.

Providing learners with real-time feedback on their results is a relevant embodied in LMSs. Another additional element provided by LMSs are visual reports. Such an interface is translated into easy, finely-designed, easy-to-grasp information, that report performance and progress. However, to achieve a high level of user experience design, we should keep in mind that the two main groups have different needs that should be assessed. From instructors' perspective, the platform should be easy to learn, highly customizable, and fit for the organization. From the learners' perspective, it should be engaging, easy to use, understandable, and easily accessible.

2.3 Blended Learning in Higher Education Institutions

The most important elements related to educational interactions' quality within a virtual learning environment are the pedagogical approaches implemented in it. If learning approaches in a virtual environment are similar to those in a traditional one, it would therefore be merely an extension of the integrated educational environment. Innovative developments are denoted by new teaching methodologies which tend to result in a different, better, and quality-oriented professional formation. Such innovative environments are defined by a system of educational conditions supported by information and communication technologies and harmonized with the traditional processes of knowledge conduction. Institutions of higher education are facing increased scrutiny to improve student learning and demonstrate programme effectiveness. Even though academics have access to numerous online teaching tools, teaching and learning is not all about the technology. Literature suggests that one of the principal components of effective

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teaching is student engagement, which in all cases, is essential for learning (Barkley, 2009; McCormick, Kinzie, & Gonyea, 2013).

Even though technology is not an essential part of effective learning, (Ferreri & O'Connor, 2013) suggest that to best engage students and improve learning, delivery methods that exceed traditional lectures, can prove themselves more effective. This is important because there is a group of technologies available to enhance student learning, and in a tech-based environment, it is rational to expect more advancements will be made using the latest technologies. In response to these expectations, universities internationally have recognised over the last two decades that in order to promote learning, maintain student engagement and to increase student satisfaction, the utilisation of technology in addition to traditional learning approaches is considered fundamental.

There are in fact a series of benefits that arise from introducing blended learning to higher education institutions. As has been discussed, blended learning is an integration of face-to-face and online learning experiences, not a layering of one on top of the other. Evidence indicates that it has the potential to be more effective compared to traditional methods (Garrison & Kanuka, 2004). Other results suggest that there can be possible improvements regarding academic performance and student and staff satisfaction, but fail to provide conclusive evidence that it contributes to building "lifelong learning" (Phillips and O'Flaherty, 2015).

For students, these methods offer flexibility both in time and space. Students are positive about the reduced logistic demands afforded to them when actual face-to-face class time is minimized. The online elements of blended courses can be adapted to students' busy timeline and engagements, allowing them to complete different tasks not being concerned about factors such as time or space (Moskal, Dziuban, & Hartman, 2013; Poon, 2013). Flexibility is a more important factor than it seems. As Stuart et al. (2011) point out, extracurricular activities are of a growing importance in the life of a student, as they assist in developing self-identity, social networks and career prospects/pathways. Extracurricular activities take a considerable amount of time and energy, consequently flexibility is essential for managing to achieve high results.

Other implications are linked to an enhancement of the learning experience, and learning effectiveness in a broader extent. There is evidence in the literature that blended learning methods can enhance learning experience (Paechter & Maier, 2010; Paechter, Maier, & Macher, 2010; Poon, 2013; Smyth, Houghton, Cooney, & Casey, 2012). Despite evidence supporting the effectiveness of the blended learning method having been reported, there is no clear indication of scale of improvement because measuring learning experience is a complex issue. Furthermore, there is a mutual relation between learning experience and academic performance according to Bliuc et al. (2011). When high academic performance is factored in, blended learning methods have been proven more effective in increasing the learning experience. On the other hand, the enhancement of the learning experience, driven by blended learning, can increase academic performance. Besides learning experience and academic performance, the motivation to learn is one of the variables that has most often been studied in the field of education (Hun, Morris, & Yoon, 2006). Typically, motivated students are more involved in classes and have greater persistence in completing assignments. Victoria López-Pérez, et al. (2011) suggests that students' motivation increased during certain experiments in which blended learning was implemented, and the possibility of having more types of interaction proved to be a

significant factor by creating positive approaches towards knowledge and leading to higher marks.

3 Research Hypothesis

Understanding students' attitudes toward blended learning is a critical issue for improving learning experience. Examining student attitudes toward e-learning could facilitate the creation of blended learning environments adequate for both teaching and learning. Evaluating methods of blended learning measurement cannot be performed using a single linear methodology; it means collecting data on learners' attitudes toward e-learning requires a multidisciplinary approach (Liaw, Chen, & Huang, 2008). The measurement of e-learning must incorporate different aspects of user perceptions to form a useful diagnostic instrument (Liaw & Huang, 2013).

The first factor to consider in a blending learning system approach is the LMS, as e-learning system's quality will affect perceived satisfaction. LMS factors that influence user's satisfaction are multidimensional. On one hand, there is platform accessibility, such as usability and the responsive design (Liaw et al., 2008; Zaharias & Pappas, 2016). On the other hand, there is the relevance of the platform content; more precisely, the relevance of online lessons to the subject they are studying. Thus, I propose the following hypotheses:

H1: Students' perceived satisfaction from the platform will be influenced by the relevance of the platform content.

H2: Students' perceived satisfaction from the platform will be influenced by the accessibility of the platform.

Another factor to be considered is the individual experience in classroom learning. There are several aspects of a classroom experience which influence the course satisfaction, one of which is the perceived utility or usefulness from the lecture, in the form of preparation, motivation, participation, and interactivity (Hughes, 2005). The introduction of blended, almost flipped, classrooms is favourable for the development of students' critical thinking skills in class. A flipped classroom strategy considers the work typically done as homework to be better undertaken in class with the guidance of teachers. At the heart of flipped classrooms is moving teachers' knowledge delivery outside the formal class time, and using formal class time for students to actively engage in knowledge construction through extensive interactions with peers and teachers (Kong, 2014).

On the other hand, the issue of integrating technology in the learning process emerges, which, considering the context of a traditional single-textbook learning environment, is somehow confusing, especially when introducing a vast amount of learning material and resources. Evidence suggests there is perceived anxiety toward technology, which is understood as the fear or confusion that individuals can experience when using it. Technology may evoke anxiety because it requires users to learn new terminology and understand unfamiliar applications (Liaw & Huang, 2013). Furthermore, technology literacy is not at a desirable level as many students face challenges to effectively use computers and internet. Technology literacy is thus important for the introduction of blended learning, and the lack of it can make this approach bemusing (Ezziane, 2007). Therefore, I hypothesize that:

H3: Students' perceived satisfaction from the course will be influenced by the perceived utility of the lecture.

H4: Students' perceived satisfaction from the course will be influenced by the perceived confusion from the blended approach of the lecture.

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The above hypotheses identify two key aspects to a blended learning approach, the perceived satisfaction from the platform (LMS) and the perceived satisfaction from the course. Both these factors are expected to influence students' learning experience (Liaw & Huang, 2016; Motta, 2016). In this study, learning experience is treated as a combination of engagement, motivation, involvement and interaction. Thus, I propose the final two hypotheses:

H5: Students' learning experience will be influenced by their perceived satisfaction from the course.

H6: Students' learning experience will be influenced by their perceived satisfaction from the platform.

4 Research Methodology

4.1 Participants and data collection

This study was conducted at the University of Tirana, Faculty of Economics. It investigated the relationship between student achievement and online activities of university students who participated in a blended course, which combined traditional lectures and lab sessions with online interactions and online access to course materials. The first reason for choosing this faculty is related to the LMS platform introduced. *Metronom (metronom.al)* is an Albanian-founded LMS, with a primary focus in Business and Finance/Accounting studies, in higher education. More specifically, the platform focuses on three courses: Entrepreneurship, Innovation, and Human Resource Management. As this is the main LMS supplied for the focus of this study, consequently students enrolled in these three courses were selected to conduct it.

The course was conducted in a typical flipped-learning classroom. Usually, flipped-learning incorporates video lectures, readings, online modules, online quizzes, and other online activities to engage individual students so they can come to class with background knowledge about the topic intact, and be more involved in active learning techniques during face-to-face, or online classes (Stone, 2012). After the blended learning courses were conducted, students were handed out a questionnaire to collect data about the course and the LMS. During the course lecture, students were informed about the research, and when questionnaires were handed out they had clearly understood the purpose of it. The questionnaire collected demographic information and posed questions related to the respondent's e-learning experience, and attitude toward e-learning. The paper-based questionnaires were distributed with a cover letter to participants during class. Of the 375 collected questionnaires, 33 were discarded due to incomplete responses, leaving 342 valid responses. From the responders, 204 followed their bachelor's studies in Business Administration and 138 in Finance/Accounting. Furthermore, 202 of them were in the first year of their studies and 140 in the third year of their studies.

Based on the work of (Cigdem & Ozturk, 2016; Liaw et al., 2008; Liaw & Huang, 2013, 2016), the questionnaire was constructed to capture students' perception of the blended learning course. This perception included their learning experience for the duration of the course; both their class experience, referred to as class satisfaction, and platform (LMS) experience, referred to as platform satisfaction. A five-scale Likert questionnaire was administered to assess students' perception of their classroom and online experience.

Two main factors were considered for the platform experience of a student: (i) platform accessibility, or how comfortable students feel with using the online platform and (ii) platform content, or the relevance and online lessons available to them in the platform. Two other factors were considered for the classroom experience of a student: (i) perceived utility from the classroom, or the extent of usefulness perceived by the students during class attendance, and (ii) perceived confusion as a result of a blended learning approach. Perceived confusion is also a contextual-based question, as students normally receive limited material (a book or a series of printed lessons) to study a certain subject, thus not only receiving additional material, but a great quantity of material.

5 Data Analysis

5.1 Structural Equation Model (SEM)

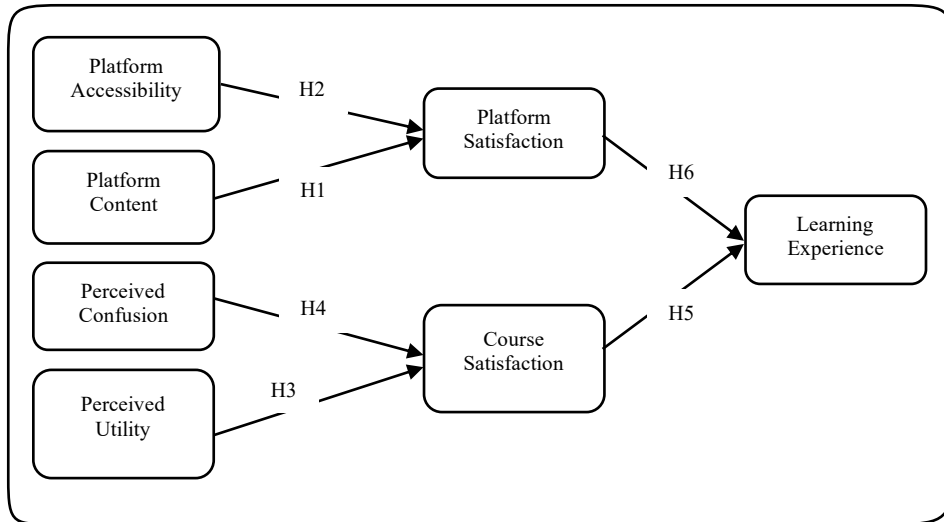
The primary goal of a SEM analysis is to confirm research hypotheses about the observed means, variances, and covariance of a set of variables. The hypotheses are represented by a number of structural parameters that is smaller than the number of observed parameters. As a confirmatory approach, it is crucial for the research to test models that have strong theoretical or empirical foundations (Natasha K. Bowen, 2010). Research in social sciences is focused on attitudes and perceptions, thus latent variables are essential in discovering relations. These relationships are often of main scientific interest, whereas the relationship between the observed items and the latent variables are of secondary interest. An important advantage of modelling the relationship among latent variables directly is that detrimental effects of measurement error, such as regression dilution, may potentially be corrected (Skrondal & Rabe-Hesketh, 2004).

Relationships among latent variables and other variables in a SEM model are *structural relationships*. Structural questions relate to the regression and correlational relationship among latent variables and among latent and observed variables. SEM structural models can include any combination of latent variables and observed variables. Observed demographic variables can be included as covariate or control variables, for example, in a model with latent independent and dependent variables. As with CFA models, all variables and relationships in structural models should be justifiable by theory and/or previous research. SEM permits simultaneous regression equations, that is, equations in which one variable can serve as both an independent and a dependent variable. It is therefore a valuable tool for testing mediation models, that is, models in which the relationship between an independent variable and a dependent variable is hypothesized to be partially or completely explained by a third, intervening variable.

There are of course some limitations to SEM. Structural equation models are often given causal interpretations. The causal parlance attached to simultaneous equations is undoubtedly a major reason both for the attractiveness of these kinds of models among social scientists and the scepticism from many statisticians, but it often is not the case. Causal interpretations should of course be conducted with extreme caution and instead SEM should be used to highlight relations (Kline, 2005; Skrondal & Rabe-Hesketh, 2004; Tabri & Elliott, 2014)

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Figure 1: Conceptual model



The constructs were first tested for internal consistency to check how closely related were the questions of the survey in creating a single latent (see Table 1). Explanatory factor analysis was used to define the underlying structure among the variables in the analysis. Given the sample size of 342, communalities above 0.45 and factor loadings of 0.40 and higher were considered significant for interpretative purposes. Moreover, factors with significant loadings on two or more factor (cross – loadings) were deleted from the model after different rotation methods failed to eliminate this issue. Thus, perceived utility construct was reduced from 6 variables to 3, learning experience construct was reduced from 7 variables to 5 and course satisfaction was reduced from 5 variables to 4. No change was made to platform content, platform accessibility and platform satisfaction. After the appropriate adjustments, the cumulative percentage of the variance explained by the 5 factors is 61.97%, an adequate level for the sample size of the model.

The construct validity is checked by convergent validity and discriminant validity. To measure the internal consistency of each construct, the Cronbach alpha indicator is used, which estimates the compactness of the variables in generating a single latency (the corresponding construct in this case). For example, perceived utility and perceived confusion demonstrate quite a high internal consistency with $C. Alpha \geq 0.80$. Meanwhile, even more compact are the platform accessibility and platform satisfaction construct variables, where this indicator is equal to or exceeds 0.90. The reliability of the model is relatively high, as all constructs exhibit high values of their internal consistency.

Further, if we examine the values of the CR (Composite Reliability) for each latent construct, as shown in Table x, they are sufficiently high because CR coefficients reaching at least the value of .70 are considered adequate. All the construct variables in the model display a value of 0.80 or higher, in this way manifesting high internal consistency. Meanwhile, another indicator, AVE (Average Variance Extracted), is used, which is based on measuring the average variance quantity that a latent construct can explain. Since the

minimum adequate value for this indicator is 0.50, only platform satisfaction construct has a slightly lower value of 0.49. Other constructs are shown to have a higher value of AVE, thus one can conclude that constructs of this model explain most of the variance within it.

Table 1: Construct validity

Construct/Indicator	Questionnaire items	Factor loading	Composite reliability (CR)	Average variance extracted (AVE)	Cronbach alpha
Learning Experience	LE1	.580	0.88	0.60	0.87
	LE2	.688			
	LE3	.646			
	LE4	.976			
	LE5	.858			
Platform Satisfaction	PS1	.798	0.86	0.49	0.90
	PS2	.926			
	PS3	.775			
	PS4	.789			
	PS5	.516			
	PS6	.436			
	PS7	.459			
Platform Content	PC1	.489	0.84	0.59	0.86
	PC2	.699			
	PC3	.870			
	PC4	.928			
Platform Accessibility	PA1	.760	0.90	0.75	0.91
	PA2	.925			
	PA3	.903			
Course Satisfaction	CS1	.652	0.85	0.59	0.87
	CS2	.899			
	CS3	.805			
	CS4	.679			
Perceived Utility	PU1	.756	0.80	0.56	0.83
	PU2	.764			
	PU3	.736			
Perceived Confusion	PCONF1	.603	0.83	0.82	0.50
	PCONF2	.744			
	PCONF3	.674			
	PCONF4	.757			
	PCONF5	.728			

Table 2 focuses on the key goodness-of-fit indices to provide some assessment of the CFA and structural model, more precisely key indicators of model fit as suggested by (Hair, Black, Babin, & Anderson, 2015). Regarding the CFA, the overall model chi-square is 663.113 with 406 degrees of freedom. The p-value associated with this result is close to 0 (lower than 0.001), significant at 5% level. Thus, the chi-square indicates a good fit of the

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model. In addition to the chi – square results, other fit indices need to be investigated. The value of RMSEA, an absolute fit index, is 0.043, which appears to indicate a good fit, as it is lower than 0.06 (adequate fit when lower than 0.08) and provides support for the model fit. SRMR is 0.044, quite below the cut-off of 0.05. Moving to the incremental fit indices, the CFI, as the most widely used index, has a value of 0.960, which exceeds the 0.95 limit of a good fit, hence providing additional support for the model fit.

Regarding the structural model, the overall model chi-square is 890.477 with 415 degrees of freedom and the p-value associated with it is close to 0, or significant at 5% level. Once again this indicates a good fit of the model. RMSEA value is 0.058, which appears to indicate a good fit even though it increased from the CFA model. SRMR is 0.099 and quite above the cut-off of 0.05 thus not providing additional support to the model fit. Even CFI has seen a significant decrease to 0.926, below the 0.95, but either way it is still above 0.90, thus indicating an adequate fit of the model.

Table 2: The goodness-of-fit statistics for the CFA and structural model

The Goodness-of-Fit Statistics	Structural Model	CFA Model
Chi-square (χ^2)		
Chi-square	890.477 (p=0.00)	663.113 (p=0.00)
Degrees of freedom	415	406
Absolute Fit Measures		
Goodness-of-fit index (GFI)	0.863	0.887
Root mean square error of approximation (RMSEA)	0.058	0.043
Root mean square residual (RMR)	0.105	0.047
Standardized root mean residual (SRMR)	0.099	0.044
Incremental Fit Indices		
Normed fit index (NFI)	0.872	0.904
Comparative fit index (CFI)	0.926	0.960
Relative fit index (RFI)	0.856	0.890

The main results are shown in Table 3. From the six hypothesized relationships, it results that all are significant and all the path estimates can be interpreted as valid. The first two hypotheses involved the influence of platform content and platform accessibility in the platform satisfaction. Both estimates imply a positive relation with the platform satisfaction, thus confirming the first two hypotheses. The sizes of the coefficient indicate that platform content has a bigger positive impact on platform satisfaction than the platform accessibility.

Table 3: Estimated coefficients of the structural model

	Estimate	S.E.	C.R.	p
Platform Satisfaction < Platform Accessibility	0.325	0.047	6.895	***

Platform Satisfaction	<	Platform Content	0.628	0.078	8.051	***
Course Satisfaction	<	Perceived Confusion	-0.29	0.060	-4.844	***
Course Satisfaction	<	Perceived Utility	0.543	0.059	9.191	***
Learning Experience	<	Course Satisfaction	0.261	0.047	5.543	***
Learning Experience	<	Platform Satisfaction	0.418	0.059	7.048	***

*** indicates p value < 0.001

The third hypothesis regarded the influence of perceived utility from the lecture to the course satisfaction. The estimated coefficient is relatively high and positive, thus providing evidence for the hypothesized relationship. The other hypothesized relationship was that of the perceived confusion to the course satisfaction. The effect is negative, and the absolute value of the coefficient is smaller than perceived utility. Both the negative effect and the lower absolute value are in line with the theoretical approach, as it is expected that the perceived confusion would be of lower influence to course satisfaction than perceived utility.

The last two hypotheses involve the two implied determinants of learning experience, the course satisfaction and platform satisfaction. The estimates show that they both have positive effect on learning experience, although platform satisfaction has a considerably larger effect. Therefore, even the fifth and the sixth hypotheses are confirmed.

6 Conclusions

This research aims to identify factors that affect learning experience from a blended learning perspective, thus providing a new approach to improve education quality through the introduction of technology in other Albanian universities, as well. Basically, there is no universally accepted method for evaluating learning experience as it tends to be strictly subjective, thus this study is limited because of the individual perception of students.

Results suggest the recently-introduced blended learning approach has influenced Business and Finance/Accounting students' experience in the Faculty of Economics, University of Tirana, where it has been implemented. The confirmation of the sixth hypothesis shows that the satisfaction students receive from the LMS is perceived as important to their learning experience. The effect of platform satisfaction was greater than the effect of course satisfaction on the learning experience, thus implying that the introduction of the LMS had a considerable influence on the improvement of students' learning experience. Such findings are in line with the work of previous authors who have investigated the relationship between LMS introduction and student learning experience (Paechter & Maier, 2010; Paechter et al., 2010; Poon, 2013; Smyth et al., 2012).

As the use of LMSs has increased in many educational institutions, the perceived satisfaction from the LMS is an important factor in its usage (Picciano et al., 2012; Stacey & Gerbic, 2007; Szilagy & de la Calle, 2006). This study identified two fundamental factors, platform accessibility and platform content, related to perceived satisfaction from the LMS. Both of them were found to significantly influence perceived satisfaction from the platform, as the relevance of the online content had a relatively greater effect than platform accessibility.

Perceived utility from the classroom, or the extent of usefulness perceived by students during class attendance had the expected positive effect on course satisfaction. As there is

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a considerable difference in lecturing quality, this was an expected result. Lecturing quality and student performance have been recognized as relevant influencing factors by previous research (Bliuc et al., 2011).

On the other hand, perceived confusion as a result of a blended learning approach had a negative impact on course satisfaction. Even though students are in daily contact with technology, they are still in the first steps of productively using it for educational purposes. This being the case, further developments should consider simple and clear interaction of the traditional classroom with technology.

There are, indeed some limitations to this study. Students' learning experience could have been better studied by analysing individual students' time spent on the platform, as well. In this case, the impact of the platform in the students' learning experience would have been more accurate. A second limitation is that the focus of the study is narrow, as it includes only three courses from two departments in the Faculty of Economics, at the University of Tirana. Nevertheless, the promising results found in this study provide further insight into the argument for the expansion of such a methodology in other faculties within the University of Tirana, in Albania, signaling an important shift in the way education-related material is delivered and made accessible to students.

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Annex A: Questionnaire survey

Construct/Indicator	Questionnaire items	Questionnaire content
Learning Experience	LE1	Compared to the typical face-to-face courses I participated in: [This course minimized my travel expenses every week and other learning expenses (books, notebooks, printing materials).]
	LE2	Compared to the typical face-to-face courses I participated in: [I am more engaged in this course.]
	LE3	Compared to the typical face-to-face courses I participated in: [I am more willing to ask questions and interact with the lecturer in this course.]
	LE4	Compared to the typical face-to-face courses I participated in: [I believe that cooperation with other students has been meaningful in this course.]
	LE5	Compared to the typical face-to-face courses I participated in: [There was better interaction with other students attending the course.]
Platform Satisfaction	PS1	I am satisfied to use the platform as a teaching tool.
	PS2	I am satisfied with the use of the platform functions.
	PS3	I am satisfied with the multimedia instructions on the platform.
	PS4	I am satisfied with the interactivity in the platform.
	PS5	I would like to share with others the experience of e - learning.
	PS6	I believe that the platform helps in the pedagogic - student experience.
	PS7	I believe the platform helps in students interaction.
Platform Content	PC1	Online lessons were relevant and engaging.
	PC2	Online lessons were separated into manageable parts.
	PC3	Online lessons included appropriate amount of animations, figures and graphs.
	PC4	Online lessons included the right amount of text.
Platform Accessibility	PA1	Learning how to operate the platform was easy for me.
	PA2	The commands on the platform are clear to navigate.
	PA3	The platform operating system is easy to use.
Course Satisfaction	CS1	I am satisfied with the overall content of this course
	CS2	If I am given the chance, I am going to take part in a course that is conducted simultaneously online and face-to-face.
	CS3	This experience has improved my ability to understand and use the information received during the lesson.
	CS4	Online and face-to-face components support one another.

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Perceived Utility	PU1	I felt that my classroom activation helped me to integrate more with material and focus more.
	PU2	Classroom participation motivated me to be prepared.
	PU3	I was more engaged in classroom discussions and activities.
Perceived Confusion	PCONF1	Compared to the typical face-to-face courses I participated in: [I feel isolated during my participation in this course.]
	PCONF2	Compared to the typical face-to-face courses I participated in: [I am confused with so much information and resources in this course.]
	PCONF3	Compared to the typical face-to-face courses I participated in: [I have problems using technology in this course.]
	PCONF4	Compared to the typical face-to-face courses I participated in: [I am more anxious than usually attending this course.]
	PCONF5	Compared to the typical face-to-face courses I participated in: [The course takes a lot of time and struggle.]
