Institutional Factors for Faculty Members` Implementation of Blended Learning in Higher Education

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Abstract

Purpose

The aim of this study is to develop a model grounded by institutional theory to investigate Blended Learning (BL) implementation among faculty members in higher education and further validate the model.

Design/methodology/approach

Quantitative methodology was employed, and data was gathered through questionnaires among 188 e-learning directors, managers, and coordinators at faculty/department in institutions which implements BL.

Findings

Findings reveal that BL implementation by faculty members is significantly influenced by coercive, normative, and mimetic pressures. Findings from this study also identified institutional initiatives that influence BL implementation. Accordingly, findings from this study provide insights on institutional theory perspective towards BL. The findings support higher education to plan and initiate BL policies.

Research limitations/implications

Data was collected from faculty members in universities, colleges, and polytechnics only. Besides, this research is one of the limited studies that explores BL deployment from the lens of faculty members.

Practical implications

This research contributes to existing literature on institutional theory and BL by presenting significant initiatives as practical suggestions for educationalist and policymakers. Therefore, this study provides practical implications to better understand BL initiatives by providing insights on how institutions can improve faculty members' satisfaction levels, improving course management, enriching teaching quality, and enhancing learning content.

Social implications

The findings provided in this study can be employed to design practices, policies, and a culture that supports continuance use of BL systems among faculty members to achieve an effective institutional outcome.

Originality/value

This study contributes to existing BL adoption and develop a model to examine faculty members implementation of BL approach. This research has several suggestions for higher education in terms of practice to support adoption of BL. The developed model can also be employed by academics, administration, and institutions to determine success initiatives for achieving appropriate change in adopting BL in their institutions.

Keywords: Education management; Institutional managers; Blended learning; Institutional pressures; Faculty members; Higher education.

1. Introduction

Learning is a process that comprises of cognitive, demonstrative, and experiences for acquiring, improving, or making changes in one's skills and knowledge (Anthony *et al.*, 2019). Learning environment has always been conventionally associated with physical presence of teachers,

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classrooms, textbooks, and pen-and-paper examinations (Bokolo Jr *et al*., 2020). However, the present evolving technology has increasing changed education due to online learning, teleconferencing, computer assisted learning, web-based distance learning, and other technologies which are being deployed in education such as Blended Learning (BL) (Wai and Seng, 2015). Institutions are now deploying Information and Communications Technology (ICT) to deliver course content, which combines traditional Face-to-Face (F2F) teaching and online teaching resources (Wong *et al*., 2014). BL involves the effective combination of different methods of delivery, styles of learning, and teaching modes (Dakduk *et al.,* 2018). Researchers such as Wai and Seng (2015) posited that BL is an acceptable methodology for employing transformative learning in higher education. BL has increasingly become widely employed in higher education as it has the advantages of both traditional and online learning approaches (Bokolo Jr *et al*., 2020).

Findings from the literature (Anthony *et al*., 2019) indicated that BL method employed in institutions enhances learners' learning engagement and experience as it creates a positive impact on learners' learning environment. Similarly, Graham *et al.* (2013) maintained that BL provides more flexibility and enhance learning and teaching process, offering more opportunities for reflection and feedback. BL offer interactive teaching, ease of access, and is mostly cost-effective (Carbonell *et al*., 2013). While, BL offers high contextual significance and several potential benefits its implementation is faced with technical, instructional, and organizational issues that can impact BL adoption (Dakduk *et al.,* 2018).

Furthermore, Carbonell *et al*. (2013) suggested that BL can be challenging to deploy as it changes the status quo of the conventional learning environment in different approaches, while simultaneously introducing offline and online technologies. Notwithstanding these setbacks, BL offers opportunities for faculty members to design, develop, and implement educational activities (Graham *et al*., 2013). Evidently, there has been increased development in BL implementation and there are studies that focused on student learning, but very limited studies focused on faculty members adoption and policy related issues (Haron *et al*., 2012). Hence, there in need for more faculty-level based BL research required to guide higher education to strategically implement BL (Graham *et al*., 2013). Therefore, this study employs institutional theory to investigate BL implementation by faculty members.

Institutional theory is traditionally concerned with how different groups and institutions better secure their legitimacy and positions by conforming to the norms and rules of the institutional environment (Scott, 1995; Bruton *et al*., 2010). Institutional theory offers rich, complex view of how institutions become homogeneous in wide institutional environments (Jan *et al*., 2012). Institutional theory has been employed to explore organization's behaviors towards technology acceptance as it explains how institutions adapt to institutional change through three variables namely coercive, normative, and mimetic pressures (DiMaggio and Powell, 1983; Scott, 1995). Currently, institutions are migrating from mainly implementing e-learning into BL, since BL is more effective than conventional e-learning. However, findings from the literature (Haron *et al*., 2012) suggest that faculty members are apprehensive about initiating BL. This necessitates a study to investigate the current implementation of BL among faculty members (Haron *et al*., 2012). Thus, despite faculty's important role in the success of

institution's BL implementation efforts, little has been researched regarding faculty members implementation of BL (Porter *et al.,* 2016; Callanan and Perri, 2020; Ranabahu *et al.,* 2020).

Additionally, relatively few studies have examined the institutional factors that supports or impede faculty implementation of BL. Hence, researchers such as Graham *et al.* (2013) call for research that could examine the specific institutional factors for successful BL adoption. Therefore, this study develops a model inspired by institutional theory to investigate BL implementation among faculty members in higher education. Findings from this study will enable higher education administrators to develop more effective initiatives for implementing BL. The rest of the study is organized as follow. Section 2 elaborates on literature review. Section 3 is the research model and hypotheses. The research methodology is presented in section 4. The findings are given in section 5. Discussion and implications are presented in section 6. Finally, the conclusion of the study is outlined in section 7.

2. Literature Review

This section discusses background of blended learning, reviews related works similar to this current study, and overview of institutional theory.

2.1. Background of Blended Learning

BL is the integration of digital materials, tools, and techniques with physical classroom (Owston *et al.*, 2008). BL describes learning activities that comprise a systematic mixture of physical (F2F) interactions and technologically facilitated (online) interactions between teachers, students, and learning resources (Bliuc *et al.*, 2007), as seen in Figure 1. BL typically involves the integration of various initiatives achieved by combining 30% F2F interaction with 70% IT mediated learning (Bliuc *et al.*, 2007; Anthony *et al.*, 2019). Similarly, Owston *et al.* (2008); Lothridge *et al.* (2016) recommended that a successful BL delivery comprises of 80% high quality online learning integrated with 20% classroom teaching that is linked to online content. BL is the combination of different didactic approaches (cooperative learning, discovery learning expository, presentations, etc.) and delivery methods (personal communication, broadcasting, publishing, etc.) (Jnr *et al.,* 2020a).

Garrison and Kanuka (2004) argued that BL could be a powerful strategy to lead the process to re-define higher education as a learner-centered institution and enable better learning experience. Thus, BL environments ideally integrates the positive sides of online learning and F2F interactions to enhance learning goals (Lothridge *et al.*, 2016). Previous research (Wai and Seng, 2015; Anthony *et al.*, 2019) suggested that adoption of BL approach improves students' learning engagement and experience as it creates a positive impact on learners' study approach. BL enables students to become more motivated and involved in the learning process and, as a result enhances their perseverance and commitment (Jr *et al.*, 2020). For lecturers BL offers access to materials and resources, thus helping teachers improve teaching conditions (Bliuc *et al.*, 2007).
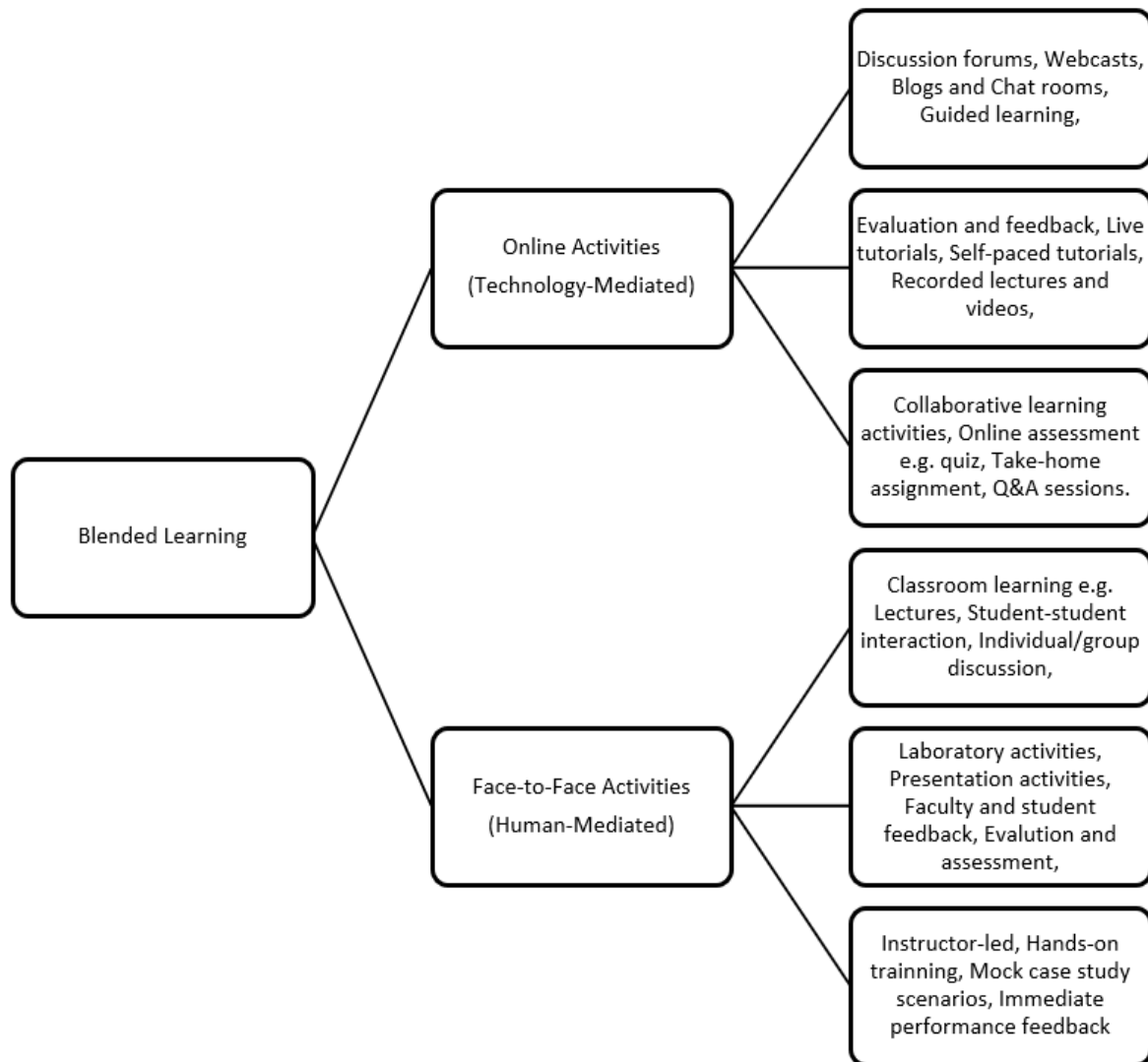
Figure 1. Overview of blended learning in higher education

2.2. Related Works

Over the decade, a few studies have explored faculty involvement of BL. Among these studies Bokolo Jr *et al*. (2020) examined institution's readiness and diffusion issues. Their research developed a model to investigate the dimensions and related factors that influence institutions' administration readiness to implement BL initiatives. The model was developed based on diffusion of innovation theory and institutional BL adoption framework as proposed by Graham *et al*. (2013). Online survey questionnaires were employed to collect data from 223 e-learning managers/administrators. Similarly, Porter *et al*. (2016) employed institutional BL adoption framework and diffusion of innovations theory to assess the extent to which institutional support, structure, and strategy impede or facilitate BL adoption among institutions' faculty. Surveys was used to collect data from 214 faculty and interviews was also employed to collect data from 39 faculty members at an institution in the current stage of BL adoption.

Carbonell *et al.* (2013) explored the creative capability of faculty to create and implement BL programs. Their study suggested four crucial factors which comprises of the project members, the project leader, the macro, and micro contexts as dimension for a successful institutional change. Interviews were employed to collect data from administrators, student council member, and faculty members. Porter and Graham (2016) examined BL to address institutional adoption issues to guide institutions in strategically adopting and implementing BL. Their research presented a framework which identified key strategy, structure, and support issues institutions may address at each stage for institutionalizing BL.

Bentley *et al.* (2012) evaluated the design and implementation of a university's global BL master's programme which combines e-learning with F2F teaching. Their study investigated the perceptions and learning experience of students and utilized the findings to assess the effectiveness of current course design and delivery methods. Action research was employed, and a longitudinal data collected over 3-year period. Porter *et al.* (2014) investigated issues related to the adoption and early implementation of BL initiatives in institutions. Specifically, their research provided insights for administrators and educationalist seeking to support institutional evolution from BL awareness and exploration to BL adoption and early implementation. Data was collected by adopting case study method using purposive sampling from 11 reported institutions employing semi-structured telephone interviews.

Graham *et al.* (2013) designed a framework for institutional adoption and implementation of BL in higher education. Their research aimed to present an institutional-based BL research to guide institutions in deploying BL based on institutional structure, support, and strategy. Case study was employed using semi-structured telephone interviews from six cases. Findings from the interview sessions provided insights to guide university administrators interested in implementing BL. Haron *et al.* (2012) examined the adoption of BL among academicians. Their study examined the factors that influence academicians to be apprehensive about adopting BL approach for teaching. A theoretical framework was developed grounded on Mesirow's transformational learning theory to examine academicians' attitude of adopting BL. The study gathered data through surveys among academicians and findings recommended the provision of knowledge on BL.

Basir *et al.* (2010) explored institutional strategy for efficient blended e-learning. The researchers present the concept of sustainable embedding as an institutional initiative for e-learning based on technology continuance and technology acceptance. Their research provided strategic initiatives for sustainable embedding towards effective e-learning. Machado *et al.* (2007) proposed an e-readiness model for institutions. Data collected via a focus group and the study aimed to support education administrators and managers assess the level of readiness of their institutions and users in using technology to facilitate educational activities.

Based on the reviewed 10 studies, there is lack of studies that examined BL implementation by faculty members grounded by institutional theory. Investigating BL implementation from an institutional perspective is important as it aids to understand how key stakeholders and policymakers can initiate or improve BL implementation. Besides, adoption of institutional theory can help specify institutional factors that influence policymaking of BL implementation in higher education. Thus, there is need for a study that investigates BL

implementation from the lens of institutional theory perspective. Methodically, the reviewed studies are mostly theoretical, case studies, and/or interview, apart from Porter *et al.* (2016); Bokolo Jr *et al.* (2020) who employed surveys. Also, institutional theory has been adopted by prior educational and e-learning research (Hanson, 2001; González *et al*., 2005; Jan *et al.,* 2012). But to the best of the author's knowledge no other studies have adopted institutional theory to investigate faculty members participation towards BL implementation in higher education. Therefore, there is need for empirical studies that employ surveys to examine BL implementation by faculty members in higher education.

2.3. Overview of Institutional Theory

According to Scott (1995) institutional theory is concerned with the factors that shape social and administrative routines, norms, structures, rules, schemas, and majorly the behaviour of social actors. Scott (1995) defined institutions as consisting of regulative, normative, and cognitive activities and structures that provide meaning and stability to social behaviour. Institutions are managed by several carriers, cultures, structures, and routines and they operate at multiple levels of jurisdiction (Yang, 2020). Institutional theory argues that the attitudes, behaviors and beliefs of individuals and institutions are strongly influenced by various interactions and networks (Hanson, 2001).

Institutional theory also addresses the role of establishments in understanding the actions of social actors and offers a perspective which can help evaluate institutions' formal and informal rules that can strongly determine the behaviors, attitudes, and beliefs of social actors (Jan *et al.,* 2012). As such, institutional theory directly influences the way an institution makes decisions, structured, and behaves (González *et al.,* 2005). Accordingly, institutional theory puts forward the notion that external pressures placed on the institution and define how the institution is governed in terms of sharing same meaning, norms, and set of rules (Cajaiba-Santana *et al.,* 2020).

Besides, institutional theory in general posits that behavioural and structural changes in institutions such as universities are rather motivated by an inherent administrative need for acceptability (Ouyang *et al*., 2020). Accordingly, based on institutional theory three types of institutional pressure are proposed as suggested by DiMaggio and Powell (1983); Scott (1995), which includes mimetic, coercive, and normative pressure as seen in Figure 2.
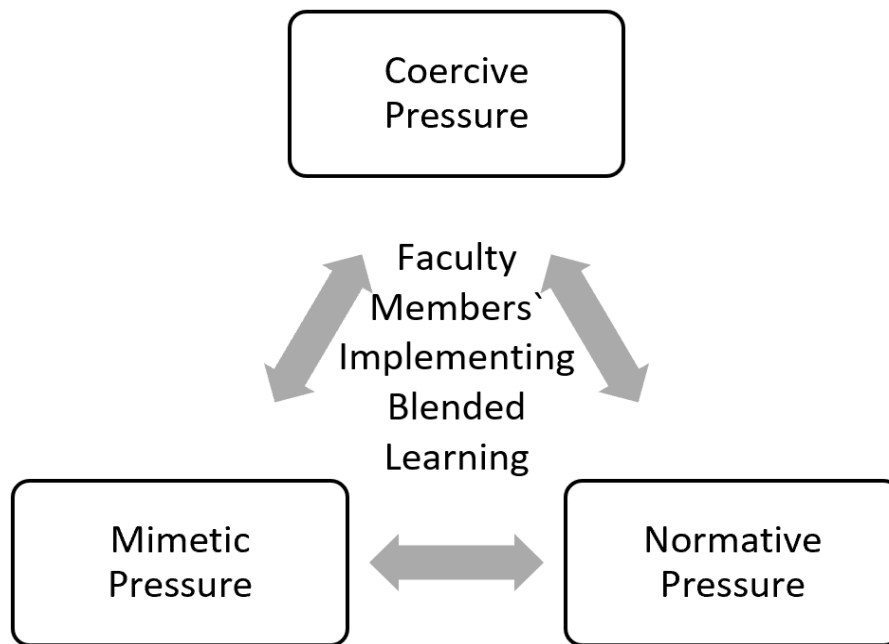
Figure 2. Components of institutional theory

Based on Figure 2, normative pressure involves forces on the integration of procedures based on normative guidelines initiated, particularly by professional associations (Cajaiba-Santana *et al*., 2020). Furthermore, due to normative pressure institutions tend to follow the norm and values of other institutions in their educational networks in exchanging of best practices for BL (Jan *et al*., 2012). Next, coercive pressure involves initiation and implementation of BL by institutions to avoid fines and potential costs related to not adopting standards set by ministry of education. Mimetic pressure encompasses forces that influence institutions to adopt similar behaviors and structures of comparable institutions in the same domain (Cajaiba-Santana *et al*., 2020).

Accordingly, this study adopts institutional theory to better understand faculty members implementation of BL. The institutional theory is employed in this study since it aids towards understanding how institutional forces play a critical role in making higher education responsive in providing quality teaching and learning environment. Also, institutional theory focuses on silent factors which shape BL implementation actions. Additionally, institutional theory provides researchers with a new perspective from which to discuss BL.

3. Developed Model and Hypotheses

In order to empirically validate the developed model (see Figure 3), which draws on institutional theory this study develop hypotheses based on institutional pressures. The identified institutional pressures which comprises of mimetic, coercive, and normative pressure (see Figure 2), their relationships, and the resulting hypotheses are discussed in the following subsections.

3.1. Normative Pressures

This pressure rises from the exchange of best practices among universities, polytechnics, colleges and the ministry of education (Jan *et al*., 2012). This ongoing information exchange within the educational value chain provides institutions with guidelines on how to implement BL (Jan *et al*., 2012; Anthony *et al*., 2019). Hence, in university context normative pressure occur when faculty members voluntarily, but unconsciously, replicate other institutions' practices and behaviors (Ouyang *et al*., 2020). Normative pressures propose that institutions are more likely to copy a certain action such as BL practice if that action (BL practice) has been adopted by a large number of other institutions or actors (Hanson, 2001; Scott, 1995; Jnr *et al*., 2020). However, this imitation or copying is not pressured by any external actors, nor is it conscious. Instead, these practices, behaviors, and attitudes are adopted for a long time by institutions in same social context till it becomes legitimized as the right and only way (Anthony Jr, 2020; Cajaiba-Santana *et al.,* 2020). Thus, the following hypothesis is proposed:

Hypothesis 1. Faculty members who perceive higher normative pressures are more likely to implement blended learning.

3.2. Coercive Pressures

Coercive pressure refers to pressure grounded in societal dependencies and expectations towards other institutions (DiMaggio and Powell, 1983; González *et al.,* 2009). Moreover, various government and educational regulations exert coercive pressure on universities and decisively drive the adoption of new technologies such as BL (Bruton *et al.,* 2010; Anthony Jr, 2019; Ranabahu *et al.,* 2020). The empirical findings provided by Bokolo Jr *et al.* (2020) as well as Ouyang et al. (2020) revealed that coercive forces encourage institutions to deploy IT mediated learning practices. Similarly, findings from the literature (Jan *et al*., 2012; Jnr, 2020) found that coercive pressure was positively related to e-learning adoption in institution. Further findings from prior study (Jan *et al.,* 2012; Jnr, 2020) indicated that institutions do face coercive pressures from other sources, such as faculty management commitment and support. Therefore, this study proposes that:

Hypothesis 2. Coercive pressures positively influence faculty members implementation of blended learning.

3.3. Mimetic Pressures

Mimetic pressure refers to pressure that influences institution to imitate the practices and actions of other institutions perceived to be similar to their establishment (Ouyang *et al.,* 2020). Mimetic pressure occurs when one educational institution consciously models itself after another that it believes to characterize a higher level of achievement and success in the public eye (Hanson, 2001; Bokolo Jr *et al*., 2020). Accordingly, Jan *et al.* (2012) suggested that most universities adopt e-learning strategies from other institutions that have successfully implemented e-learning practices and achieved significant benefits. Thus, faculty members intention to mimic is continually encouraged and reinforced by educationalist who dynamically spread the latest news about novel learning approaches such as BL being deployed in other institutions (Hanson, 2001; Anthony Jr, 2020). As pointed out by Jan *et al.* (2012), universities

will be more likely to implement e-learning if they perceive high status institutions have already deployed e-learning. Based on the preceding discussion the following hypothesis is formulated:

Hypothesis 3. Mimetic pressures positively influence faculty members implementation of blended learning.

Accordingly, as previously stated based on institutional pressures that influences faculty members implementing blended learning. The model which draws on institutional theory is developed as shown in Figure 3.
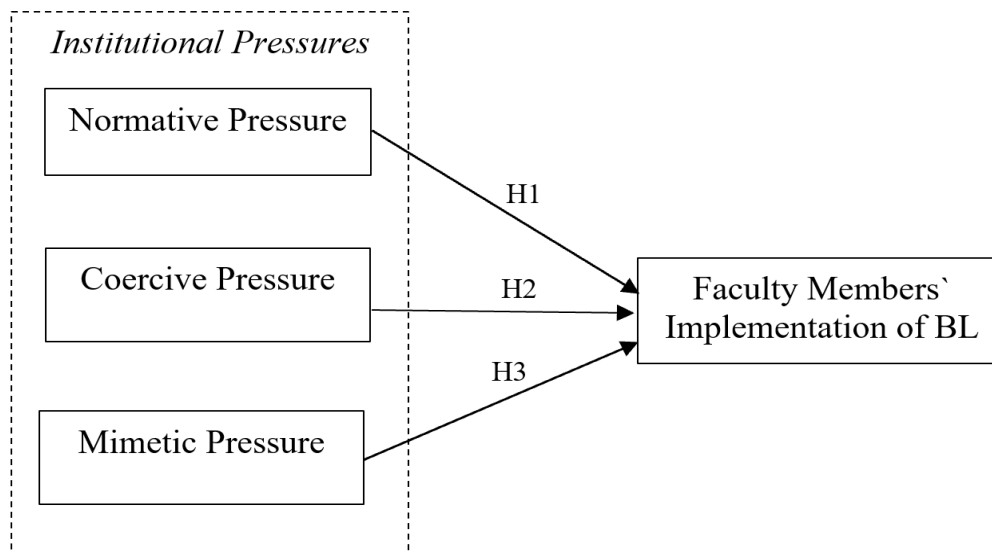

Figure 3. Developed model

4. Methodology
4.1. Sample and Data Collection

Questionnaires were used to empirically validate the developed model (see Figure 3). The aim of this study is to develop a model grounded by institutional theory to investigate BL implementation among faculty members in higher education and further validate the model. Data was collected from e-learning directors, managers, and coordinators at faculty/department which implements BL. Respondents were purposively selected from different institutions which implements BL. Next, prospective participants were informed that contribution in the research was voluntary and that their responses would be anonymous and confidential. At the end of the surveys data collection from selected institutions in Malaysia lasted from January 2019 to April 2019 with a total of 223 returned questionnaires response. 35 of the questionnaires were partially completed and was removed from the data analysis, resulting in a total of 188 completed responses.

4.2. Measures

All questionnaire items were drawn and modified from prior studies (see Table A1 in the Appendix), where normative pressure is measured based on 7 items, coercive pressure is 6

items, mimetic pressure is 5 items, and lastly faculty member implementation of BL is 7 items. To confirm evidence of face and content validity of the questionnaire items. Ten academic researchers from IT and education domain were recruited to review the questionnaire instrument. Next, the questionnaire was pre-tested, and data was collected from four e-learning managers who had e-learning experiences to assess if the respondents understood the questions and assess the reliability of the questionnaire instrument. The response from the pre-test was used to enhance the quality and readability of the questions in the instrument.

The questionnaire comprises of two sections. The first section included the demographic question (gender, age, academic qualification, years of experience, job title, nationality, institution type, institution category, and year of establishment) measured using ordinal measurement. The second section is based on the developed model (see Figure 3), where the questionnaire measures the impacts of the institutional pressure on faculty members implementation of BL measured based on a five point Likert-type scale ranging from 1 to 5, where "1" is strongly disagree and "5" is strongly agree. Furthermore, Table A1 in Appendix depicts the questionnaire items and sources. Whereas Table 1 presents the demographic data of the respondents.

Table 1 Characteristic of participants

Profile	Options	Frequency
Gender	Male	74
	Female	114
Date of Birth	1960 to1969	12
	1970 to 1979	43
	1980 to 1989	59
	1990 to 1999	45
	2000 and Below	29
Job Title	E-learning director or corresponding	29
	E-learning manager or corresponding	24
	E-learning coordinator or corresponding	62
	Other positions	73
Experience in E-learning	1 to 5	121
	6 to 10	49
	11 to 15	15
	16 to 20	4
	> 20	1
Academic Qualification	Doctorate	31
	Master's Degree	61
	Bachelor's Degree	30
	Advanced Diploma	4
	Diploma or Corresponding.	60
	Professional Qualification	2
Institution Type	Public Institution	159
	Private Institution	29
Institution Category	University	51
	University College	8
	College	9
	Polytechnic	120
Year of Establishment of BL Center	1999 to 2004	8
	2005 to 2009	8
	2010 to 2013	60
	2014 to 2017	82
	2018	30

5. Findings

Statistical Package for Social Science (SPSS) version 23 was employed to analyze the surveys data using descriptive, exploratory, and inferential statistical analysis in validating the research model. SPSS was employed similar to prior BL studies (Ozkan and Koseler, 2009; Haron *et al.,* 2012).

5.1. Descriptive Statistical Analysis

Descriptive statistical analysis aims to describe the data collected to accurately characterize the constructs under investigation within a specific sample (Anthony Jr *et al.,* 2018). Descriptive analysis was assessed based on the mean and Standard Deviation (SD) values of the constructs associated items in the developed model (see Figure 3) analogous to prior research (Ginns and Ellis, 2007; Padilla-Meléndez *et al.,* 2013).

Table 2 Descriptive statistical analysis

Constructs	Items	Mean	Std. Dev.	Skewness	Kurtosis
Normative Pressure	NP1	4.23	0.730	-1.311	3.654
	NP2	4.05	0.793	-1.137	2.581
	NP3	4.16	0.728	-1.179	3.278
	NP4	4.11	0.719	-0.955	2.678
	NP5	4.21	0.735	-0.920	1.627
	NP6	4.15	0.752	-1.014	1.907
	NP7	4.03	0.820	-0.882	1.254
Coercive Pressure	CP1	3.67	1.012	-0.802	0.372
	CP2	4.05	0.755	-0.984	1.857
	CP3	3.94	0.796	-.0796	0.965
	CP4	3.54	1.077	-0.578	-0.193
	CP5	3.96	0.958	-1.279	2.002
	CP6	3.93	0.902	-1.189	1.826
Mimetic Pressure	MP1	4.12	0.812	-0.702	0.049
	MP2	3.82	0.968	-0.928	0.820
	MP3	3.63	1.038	-0.809	0.343
	MP4	3.93	0.893	-1.130	1.797
	MP5	3.94	0.841	-0.978	1.548
Faculty Members` Implementation of BL	B11	3.92	0.794	-1.024	2.131
	B12	3.98	0.907	-1.130	1.518
	B13	3.79	0.870	-0.804	1.040
	B14	3.64	1.068	-0.874	0.400
	B15	3.96	0.941	-1.120	1.361
	B16	3.85	0.879	-0.743	0.488
	B17	3.78	0.903	-0.598	0.291

Additionally, the test of normality was employed on the data using Skewness and Kurtosis. Where the recommended cutoffs of 3.0 for Skewness and 8.0 for Kurtosis are acceptable as recommended by Junior (2019). Results from Table 2 show the mean score based on the 5 point Likert Scale response from the participants. For the mean score 1 = least effective, 2 = fairly effective, 3 = effective, 4 = very effective, and 5 = most effective (Anthony Jr *et al.,* 2018). Results from Table 2 also depict that all items mean values are higher than 3.00 which measured as significant criteria to assessing respondents' perception towards the constructs. Moreover, Table 2 presents the SD of the items where all SD values are equal to

"1" or less than 1 showing that the response from the respondents are analogous and not extensively dispersed (Anthony *et al*., 2018). Moreover, results from Table 2 suggest that for Skewness and Kurtosis all values of constructs are between the required ranges (below 3.0 for Skewness and below 8.0 for Kurtosis).

5.2. Exploratory Statistical Analysis

Exploratory analysis helps to establish the items that influence respondents' perception towards the institutional pressures that impacts faculty members implementation of BL (Anthony *et al*., 2018; Anthony Jr *et al*., 2018). Thus, for exploratory analysis, as recommended by Padilla-Meléndez *et al.* (2013) two statistical tests were employed which comprises of test of reliability and validity. Reliability was measured by checking the internal consistency of the questionnaire items associated to each construct using Cronbach's alpha α. Where the Cronbach's α reliability coefficient should be greater than or equal to 0.7 (Hair *et al.,* 2006; Ozkan and Koseler, 2009).

Table 3 Exploratory statistical analysis

Constructs	Items	Factor Loading	Cronbach's Alpha (α)	KMO	Approx. Chi-Square $\chi2$	df	Bartlett's test of Sphericity (*p-value*)
Normative Pressure	NP1	0.775	0.945	0.920	858.752	21	0.000
	NP2	0.715					
	NP3	0.725					
	NP4	0.688					
	NP5	0.759					
	NP6	0.629					
	NP7	0.624					
Coercive Pressure	CP1	0.731	0.909	0.810	426.686	15	0.000
	CP2	0.601					
	CP3	0.632					
	CP4	0.702					
	CP5	0.536					
	CP6	0.511					
Mimetic Pressure	MP1	0.586	0.914	0.748	280.179	10	0.000
	MP2	0.472					
	MP3	0.666					
	MP4	0.740					
	MP5	0.664					
Faculty Members` Implementation of BL	B11	0.760	0.907	0.901	778.754	21	0.000
	B12	0.757					
	B13	0.622					
	B14	0.771					
	B15	0.587					
	B16	0.802					
	B17	0.717					

Furthermore, in exploratory analysis test for factor loadings, Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy, approx. Chi-Square $\chi2$, degree of freedom (*df*), and Bartlett's test of Sphericity (*p-value*) were observed as suggested by (Ozkan and Koseler, 2009; Anthony *et al*., 2018) to examine the reliability of the constructs. Thus, KMO values around 0.5 are barely acceptable, higher KMO (KMO) values are categorized as mediocre (0.5–0.7), good (0.7–0.8), great (0.8–0.9), and superb (above 0.9) (Anthony *et al.,* 2018). Results from

Table 3 show the KMO and Barlett's test value derived from the factor analysis test which suggest that the KMO are higher than the 0.5 limit. Hence, indicating that the items are valid at a significance of 0.000. Furthermore, the Bartlett's test of sphericity $\chi2$ (858.752, 426.686, 280.179, 778.754), *df* (21, 15, 10, 21) at *p* < 0.000, indicating that the items are reliable for further inferential testing.

Next, validity was measured based on the correlation coefficient or Pearson correlation coefficient (*r*). As suggested by Cohen *et al.* (2014) the value of relationship, correlation coefficient strengths ranges from 0.1 to 0.29 as Weak, 0.30 to 0.49 as Average, and 0.50 to 1.0 as Strong. The Pearson correlation coefficient (r) (must be between -1 to +1), where *p* is the probability significance (must be less than 0.01 to be valid).

Table 4 Constructs validity (Correlations matrix)

Constructs		Faculty Members` Implementation of BL
Normative Pressure	Pearson Correlation (*r*)	**0.608****
	Sig. (2-tailed)	0.000
	N	188
Coercive Pressure	Pearson Correlation (*r*)	**0.887****
	Sig. (2-tailed)	0.000
	N	188
Mimetic Pressure	Pearson Correlation (*r*)	**0.796****
	Sig. (2-tailed)	0.000
	N	188
Faculty Members` Implementation of BL	Pearson Correlation (*r*)	1
	Sig. (2-tailed)	
	N	188
**. Correlation is significant at the 0.01 level (2-tailed).		

Results from Tables 4 depict that the Pearson's correlation (*r*) value was above 0.3 and the coefficient strengths ranges from 0.608, 0.887, and 0.796 signifying a positive strong correlation among the constructs. The results suggest that the constructs are statistically significant at *p* = 0.000 and *N* is the sample size (188) thus confirming that the data is valid for hypotheses testing.

5.3. Inferential Statistical Analysis (Hypotheses Testing)

Inferential statistical analysis examines the relationship between the independent variables (normative pressure, coercive pressure, and mimetic pressure) and dependent variable (faculty members` implementation of BL). Also, regression analysis is selected because of its improved applicability and comprehensibility and for studying interaction effects among constructs (Junior, 2019). Where regression analysis is extremely flexible and versatile as such can be utilized to reveal quantitative dependency among constructs (Junior, 2019). The confirmation of the hypotheses was carried out through regression analysis using SPSS similar to prior study (Ouyang *et al.,* 2020). The *f-test*, R^2, path coefficient (*β*), *standard error*, effect size measure (*t-value*), and *p* significant value were assessed to confirm or reject the hypotheses as presented in Table 5.

Table 5 Inferential statistical analysis (hypotheses testing)

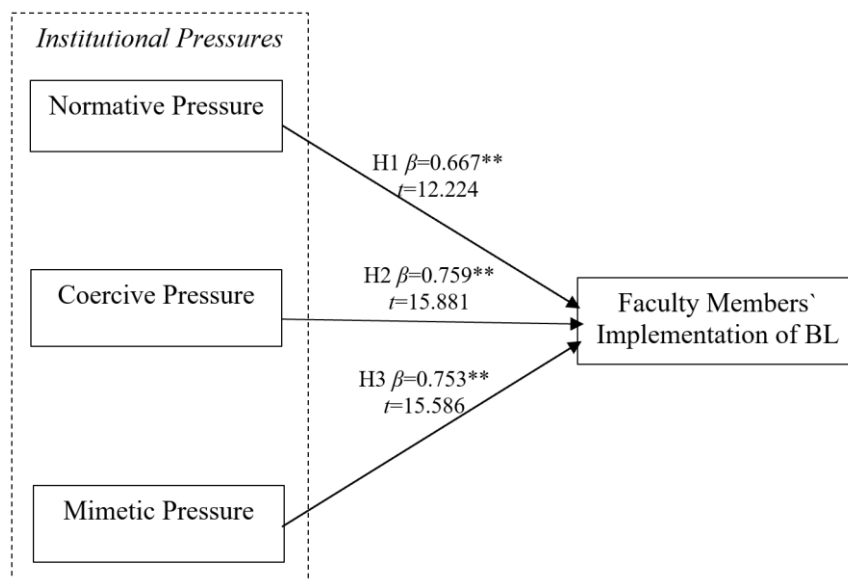| Relationships		Regression Analysis						
Hypothesis Path	Hypotheses	F-Tests	R^2	Path Coefficients (β)	Standard Error	t-test	p-value (Sig.)	Decision
Normative pressure → Faculty Members` Implementation of BL	H1	149.427	0.445	0.667	0.056	12.224	0.000	Valid
Coercive pressure → Faculty Members` Implementation of BL	H2	252.217	0.576	0.759	0.044	15.881	0.000	Valid
Mimetic pressure → Faculty Members` Implementation of BL	H3	242.927	0.566	0.753	0.045	15.586	0.000	Valid
Decision: Hypothesis is Valid if *t-value* = > 1.96 and *p-value* = <0.05								

Figure 4. Results of the model testing. Note: ** means significant when $p <= 0.05$

Results from Table 5 and Figure 4 depict the inferential test using regression analysis between constructs. Where the results outline the goodness of fit relationship test namely *F-test* for the constructs given as 252.217, 149.427, and 431.427 with *p-value* 0.000 stating that the test is highly significant for all hypotheses. Since *p-value* of *F-test* is less than significance level $p=0.05$. Therefore, validates that there is a significant relationship between the constructs. The strength of relationships is assessed by examining R^2 of the constructs, where normative pressure influence on faculty members` implementation of BL with $R^2 =0.445$ interpreting 44.5% of the variance. Where, the influence of mimetic pressure on faculty members` implementation of BL has $R^2 =0.556$ interpreting 55.6% of the variance. Next, $R^2 = 0.576$ for coercive pressure suggesting that coercive pressure has been interpreted at 57.6% of the variance of faculty members` implementation of BL.

Furthermore, all the constructs have a direct impact as shown in positive beta result ($\beta = 0.759, 0.667, 0.836$), which express the relative importance of the constructs. Besides, the *t-test* value all constructs (15.881, 12.224, 20.771) are higher than 1.96 benchmark as recommended by Anthony Jr (2019). Suggesting that all hypotheses in this study are positively

significant and valid. With coercive pressure being the most influencing institutional factor that impacts faculty members` implementation of BL at $t = 15.881$, $R^2 = 0.576$. Followed by mimetic pressure with $t = 15.586$, $R^2 = 0.566$ and normative pressure influence on faculty members participation in implementing BL being the least significant institutional factor at $t = 12.224$, $p = 0.445$. This is evident since educational institutions are mostly influenced (coercive pressure), to improve teaching approaches to enhance learning outcome by governmental policies and regulation initiated to improve educational standards.

6. Discussion and Implications
6.1. Discussion

This study develops a model grounded on institutional theory which seeks to understand how institutional pressures can influence faculty members` implementation of BL in higher education. The institutional theory focuses on the pursuit of acceptability in society and is based on the significance of the institutional environment as behaviors and attitudes of social actors. The theory specifies that in institutions, social actors such as faculty members are characterized by ordered rules and regulations. Though institutional theory has previously employed in organizational context, it has not been applied in BL context. Therefore, the institutional theory was adopted in this study to develop the research model and data was collected using surveys. Findings from the data positively supports the developed model hypotheses (H1-H3).

The examination of normative pressure effects on the relationship between faculty members` implementation of BL suggests that normative pressure positively drives faculty member in implementing BL. This relationship suggests that normative pressure is rooted in the procedures of professionalization in which the standards, codes, and values are imposed by accreditation agencies, universities, and professional certification (Hanson, 2001). According to DiMaggio and Powell (1983) normative pressures can be perceived as standards of expected behavior put in place by professional bodies. Hence, institutions implement BL to be in conformity with institutional expectations and normative pressures (Anthony Jr, 2020; Cajaiba-Santana et al., 2020). This finding is analogous with results from Jan et al. (2012) which indicated that universities decisions to adopt e-learning strategies depends on the considerable number of similar institutions already adopting e-learning.

Findings provide support for the influence of coercive pressure on faculty member implementation of BL, which confirms the positive relationship between coercive pressure and faculty members` implementation of BL. This finding positively confirms the dominant role of coercive pressures as suggested by previous studies (Scott, 1995; Bruton et al., 2010). Besides, this finding positively confirms that coercive pressure stems from informal and formal pressures for compliance (DiMaggio et al., 1983). This finding is similar with results from prior study (Hanson, 2001), which mentioned that coercive pressure positively influences universities to adhere to adopting online and F2F learning. Hence, coercive pressure is based on institutional forces prescribed by administrations such as ministry of education who often possess regulatory powers that direct the legitimate behavior in higher education (González et al., 2009; Ouyang et al., 2020). Thus, faculty members compliance with coercive pressure is a

conscious behavior that requires obedience to establish norms and rules that must be adhere to by institutions evolving in order to achieve legitimacy via social and legal approval (Cajaiba-Santana *et al*., 2020).

Furthermore, findings indicate that mimetic pressures positively influence faculty members implementation of BL. This result is in line with that of the prevailing literature (Hanson, 2001; Ouyang *et al*., 2020), which stated that mimetic pressures steams from the need for institutions to mimic the behavior of other legitimized institutions in order to decrease anxiety and uncertainty. This finding is also analogous with results from Cajaiba-Santana *et al.* (2020), where that authors emphasized that institutions when challenged with ambiguous situations, will opt to mimic approaches adopted by established institutions as a means of attaining legitimacy. Similarly, findings from Jan *et al.* (2012) revealed that mimetic pressure positively influences institutions to adopt, consciously, and voluntary similar behaviors and structures of comparable universities in the same institutional domain. Thus, mimetic pressure will determine if faculty members will implement BL institutions based on similar practices previously employed in other institutions.

6.2. Implications
6.2.1. Theoretical Implications

This study provide implication on the impact of institutional pressures on faculty members implementation of BL initiatives in higher education. Theoretically, institutional theory is employed in this study as higher education are embedded in an institutional environment that guides their behavior and governance. Institutions establish boundaries that shape interactions among establishments, individuals, and other stakeholders. This research validates the model developed grounded on the institutional theory to examine faculty members` implementation of BL. The institutional pressures (see Figure 3) can be adhered to by policymakers and key stakeholders to identify and assess the impact of institutional pressure over governance of BL policies.

Therefore, this study provides implications on institutional pressures that triggers future development of BL in institutions. The derived items from the literature (see Table A1 in Appendix) can be used as a reference and guide in improving BL policies in higher education. In addition, faculties who are interested in adopting BL as a delivery method will also benefit from the research findings of this study. Through gaining an understanding on the role of coercive, normative, and mimetic pressure on faculty members to implement BL. Additionally, this study provides understandings to administrators and faculties about the institutional pressures necessary to support the implementation of BL by empowering faculty members to improve educational activities. By using BL to improve instructional pedagogy which match the needs of F2F and online learning. The study highlights the role of faculty to initiate and promote institutional-wide practices for BL. Besides, this research contributes to the existing literature on institutional theory and BL by presenting significant initiatives as seen in Table A1 as hands-on suggestions for educationalist and policymakers.

6.2.2. Practical Implications

Practically this study provides insight as to where future efforts need to be directed to improve BL experience in higher learning. By proposing an institutional perspective to serve as a guide to plan, develop, improve, deliver, and manage BL programs for universities, polytechnics and colleges. The results of this research contribute to existing BL adoption and develops a model to examine institutional factors that can influence faculty members implementation of BL approach. This research has several suggestions for higher education in terms of practice to support adoption of BL. The developed model can also be employed by academics, administration, and institutions to determine success initiatives for achieving appropriate change in adopting BL in their institutions.

The model developed in this study can be employed by policy makers in higher education to understand how their set objectives have been attained in technology integrations for learning and also provides avenue for improvement where necessary. Findings from this study can be useful for preparing of approaches to support faculty members in adopting innovative teaching approaches, promoting the deployment of technology to improve teaching and learning outcomes. Specifically, this study provides institutions interested in adopting BL with information concerning how their institutions' decisions regarding BL adoption may influence faculty members adoption. Furthermore, the findings provided in this study can be employed to design practices, policies, and a culture that supports BL implementation among faculty members to improve teaching outcome.

7. Conclusion

Currently, institutions are preoccupied with advancing BL technologies towards achieving desired teaching and learning quality. Therefore, there is need for an institutional BL methodology to be employed by faculty members to have a comprehensive guideline for designing and implementing BL in their institutions. However, only fewer studies focuses on the development of a holistic approach for exploring current institutional BL strategies. Likewise, the impact of institutional forces on faculty member perspective in implementing BL has not been well researched in the literature. Therefore, based on these knowledge gap, this study contributes by discussing an institutional perspective of BL and suggests unexplored paths of reflection to research and policymaking for BL activity in higher education. This study develops a model based on institutional theory that integrate institutional pressures, namely, coercive, normative, and mimetic. Implications from this study also discusses institutional pressures (mimetic, coercive, and normative pressure) that policymakers need to adhere to in order to improve faculty member implementation of BL.

Data was collected using questionnaires and findings suggest that faculty members implementation of BL is positively influenced by coercive, normative, and mimetic pressures. This study provides important insights into the impact of institutional pressures and faculty members implementation of BL in higher education. Additionally, findings from this study provides indicators for understanding how higher educational institutions are subjected to

pressures and how they adopt certain BL governance practices for gaining legitimacy in their institutions. Lastly, the institutional factors presented in this study enable higher education to identify institutional strategies that influence future governance and policymaking of new entrants and existing institutions in ensuring an institutional stability of BL implementation. However, this research has some limitations, which offers opportunities for future research. The cross-sectional nature of the surveys data raises the limitation of causal relationships in the model. In addition, faculty members perceptions cannot completely represent the evaluation and judgment of the entire group of faculty members in all institutions where data was collected. In future research, a highly inclusive surveys can be employed. Finally, the data for this study are drawn from faculty members in Malaysia institutions and the results may not be completely generalizable to faculty members from other institutions in other countries where the culture is relatively different.

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