

**The Influence of Higher Education Service Quality on Behavioural Intention: The Mediating Role of Student Happiness**

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***Abstract***

*Higher education frameworks in numerous nations have extended drastically to meet growing economic and social needs. Educational policies, structures and practices have been essentially affected by globalization. Some of these progressions have been driven by financial forces, while others have been driven by political, technological, and social powers. Globalization's effect on education has brought on a reconsidering of numerous ranges in education, including its purpose, structure, pedagogy, content, instructional methodology, and outcomes assessment. The study aims to investigate the casual relationship between service quality and student behavioral intention, as well as, the mediating effect of student happiness. In the current study, the researcher adopted the quantitative technique (using questionnaire method) to achieve the research aim. SPSS25 and Smart PLS3 are implemented for data analysis. The results revealed that higher education service qualities; and student happiness, have a positive effect on student behavioral intention. In addition, student happiness mediates the relationship between higher education service quality and student behavioral intention. Theoretical and practical implications are introduced as well as suggestions for future research.*

**Keywords:** *Behavioural intentions; satisfaction; service quality; higher education; UAE*

## **1. Introduction.**

Higher education is facing heaviness and pressure to develop value and advantage in its activities [1]; [2]. It is being driven towards commercial competition that imposed economic forces resulting from the development of global education [3]. The problems identified that students move or switch to other institution suddenly during a study by using credit transfer or after completing the degree not remain in the same institution [4]. In addition, behavioural intention is the immediate determinant and best predictor of behaviour [5]; [6]. It defined as an individually planned future, represent the expectations in a given setting. University student's behavioural intention mainly focus on university choice intention and post-purchase behavioural intention with the later receiving most of the attention [7]. It is a consequence of attitude, subjective norms and perceived behavioural control [8]; [9]. Several researchers have investigated different definitions of behavioural intention [10]; [11]. For example, Zeithaml, Berry, & Parasuraman, (1996) [12] defined as user or customer will remain the relationship with the service provider. This study, the researcher seeks the student's behavioural intention after completing one course to another course. Zeithaml, Berry, & Parasuraman, (1996) [12] also identified measurable dimensions; favorable and unfavorable. Favorable indicates that students will convey a positive word of mouth, readmit while unfavorable intention tends to spread a negative word of mouth and convey their negative experience to other students [13]. The relationship focuses on the average student comes back to readmit for next degree or continue until it creates a positive attitude on the university services.

Furthermore, student happiness is a highly valued goal for educational institutions. Generally, the university should try to reduce human suffering and make life easier and more satisfied. Veenhoven, (1993) [14] identified that happiness is current output indicator of policy success such as students experience at education content, supportive, being positive and maintain the balances of an operational process [15]. Moreover, happiness is associated with the ontological issue that concerned the enduring notion of becoming happy not in university structural influence, but quality housing, campuses, sports and other facilities made by the university [16]. A little attention has been drawn that student happiness mediates between service quality and university operational performance [1]; [18]. We turn to consider the word happiness at the level of student satisfaction of the university service and experience.

In today's global competition, interpreting service quality is a key part of organizational success and complete trend currently shaping marketing and business strategy is service quality [19]; [20]; [21]; [22]; [23]. Since the 1980s, the terminology service quality has been linked with increased growth, profitability or satisfaction and providing an important competitive advantage by positive word of mouth feedback and service differentiation [17]; [24]; [25]; [26]. Mawoli, 2013 [27] found four cues of service quality which includes tangibles, recovery, responsiveness and knowledge. Seven prompts of service quality which include courtesy and competence, communication and transactions, tangibles, knowing and understanding the customer, accuracy and speed of the server, the solution to the problems, and accuracy [4]; [28]; [24]; [29]. This study perfectly followed the seven prompts according to maintain the student's expectation and fulfilment. According to the best of the author's knowledge, the little study considers the higher

education service quality and its influence on happiness and student behavioural intention. This study is most significant to emphasize the theoretical understanding and implement to the university for a better future. Further, the objective indicates the determination of relationships among higher education service quality, student happiness and student behavioural intention.

## **2. Literature Review.**

### **2.1 University service quality, student happiness and behavioural intention**

Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining and measuring with no consensus emerging on either [30]; [31]; [32]; [25]; [23]. It is often viewed from two perspectives that are from the customer's cognitive evaluation of the service provided [24]; [34] and multidimensional construct [35]. Basically, higher education service quality indicates that making upright relation with students for standard education, materials and endeavors each other to come again. It is generally assumed that the key to gaining an advantage lies in bringing high-quality service and lead to satisfied users [36]; [38]. Furthermore, service quality is very important for university operations, which tremendous increase in effectiveness over the past decades [39]. University increasing make multiple investments using different management forms based on structures, and commonly used management forms and licensing [40]. Service quality includes the physical environment, administrative quality and core educational quality. The physical environment quality indicates the overall surroundings of the university that enhance attraction [41]; [42]. It also denotes a learning environment setting and university infrastructure. Further, administrative quality describes the service that directly linked with the student such as financial transaction, academic results and annual report of the students.

The core educational quality explains the learning process and procedures that they gathered form the instructor, conferences and class [41]; [43]. Rust & Oliver, 1994 [44] proposed that the overall perception of service quality is based on a student's evaluation of three dimensions of the service interface: product, delivery, and environment. It describes four dimensions: attitude and behaviour, curriculum, pedagogy and competence [45]; [25]. However, university service quality effects on student happiness indicate that university service, product and environment enhance happiness. Theodorakis, Kaplanidou & Karabaxoglou (1985) [46] investigated that service quality increased happiness from the participant's experiences. Moreover, university service quality influences on behavioural intention through student happiness. Finally, university service quality directly influences on behavioural intention. It is noted that students expect the service quality by using sources and operations and intent to patronize again. There is two way of behavioural intention for the university students; after completing the degree will admit again or continue the study without credit transfer. According to the author's knowledge, little consideration has been drawn to the relationship between university service quality and student happiness toward the behavioural intention. Above discussion formulated two hypotheses as follows:

**H1:** University service quality effects on behavioural intention

**H2:** University service quality effects on student happiness

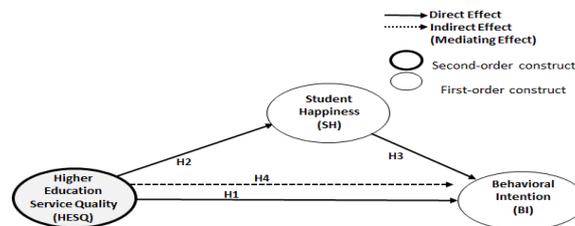
**H3:** University service quality effects on student happiness through behavioural intention

**2.2 Student happiness and behavioural intention**

Happiness is defined as the positive effect of the state of contentment and well-being, that characterized by the sense of joy, derived from the living of meaningful life [47]. It establishes positive relationships through living a life or virtue [48]. Lyubomirsky, Dicker hoof, Boehm & Sheldon [49] considered that sustainable happiness achieved through changing behaviour if two core dimensions: psychological and emotional. To ensure happiness, a change needs to take place in terms of the internal psychological individual processes and emotional steps to facilitate the change of behaviour. Achieving greater happiness is important to target for many individuals, where most of the university students stated that they are unhappy because of more pressure [49]. Most argued that sustainable happiness and avoiding depression is at top of the bucket list. However, student happiness effects on behavioural intention. The common indication denotes that happiness makes soft emotion for the user and encourage to come back again. [13] investigated that emotional satisfaction enhances behavioural intention. From the university perspective, students expect happiness regarding study and finding materials for their easy use. Moreover, happiness comes from the technique of teaching and learning, when it intentionally encourages. Student happiness also comes from the proper and systematic learning procedures of the university that increase the behavioural intention. Biscaia, Correia, Rosado, Maroco & Ross (2012) [50] explained that behavioural responses associated with the specific emotional experience. The above discussion formulated the hypothesis as follows:

**H4:** Student happiness effects on behavioural intention

**2.3 The framework**



**Figure 1: the conceptual framework**

**3. Methodology.**

This study is followed quantitative research design that collections out the quantify data in order to use statistics for analyzing data set [51]. This research approach has successfully been used in the context of higher education institutions (university) studies, with the determination of students behavioural intention after getting service quality and happiness [52]. Respondent’s profile or information described the motives and attitudes that provide an effective design of research measure and the perceptions of university students. Therefore, this study needs a self-administrative questionnaire for assuming the responsibility of student reading and responding to the questions. The researcher can distribute numerous questionnaires to different respondents in different places

simultaneously in their favorable time. The study constructs have adapted for the previous literature and used a five-point Likert scale to measure the questionnaire following strongly disagree (1)-strongly agree (5). Therefore, the construct higher education service quality has adapted form [53] with 48 items, student happiness [54] 6 items and behavioural intention [55] with 5 items.

### **3.1 Data collection and sample characteristics**

This research applies a survey-based methodology for gathering data, which has many advantages and mainly suitable for this study. Kleinberg, Kumar, Raghavan, Rajagopalan, & Tomkins, (1999) [56] explained that survey-based methods give advantages for assembling a large amount of data about an individual respondent at one time and it's flexible for collecting data. Accordingly, in the quantitative research approach of study survey-based methods can collect a large data sample quickly and efficiently [57]. Data were collected from by doing a survey and circulated in UAE universities from the students. The instruments were developed to explore the impact of higher education service quality, student happiness and behavioural intention. Simple random sampling has been followed for the pre-testing several times to ensure that wording, format, and sequencing of questions. This study sample size decided in consideration of the following researcher connection. Flynn & Percy, 2001 [58] mentioned that an acceptable sample size with no simple and definitive rule an accurate sample size, which considerable debate in the research field. The questionnaire was distributed among the university academic students and 500 questionnaires distributed, 400 valid questionnaires collected. The questionnaire has given them for a prior time such as one week per collection and after collected from each university for six months. For the analysis, data coded by SPSS for descriptive analysis and used PLS (Partial Least Square) to assess the direct and indirect relations and significant results, path, estimation and supported the hypothesis. It needs a large sample which is less stable for estimation purpose, some researchers believe that PLS may use for sample size as small as 50 and large 5000 [59].

## **4. Data Analysis and Results.**

### **4.1 Descriptive Analysis**

The respondents' information is summarized using basic descriptive statistics such as frequencies and percentages in order to provide overview of the data collected. Table 1 shows the frequency and percentage for demographic profile of respondents in the study sample. It shows that there were more male (65%) than females (35%) in the educational institutions. Most of the students were aged between 18 to 25 years; this accounted for 65% of the responses followed by the age range of 26 years to 35 years at 32% of total responses. Most of the students are from UAE 90.3%. Close to 54.4% of the students study a bachelor degree and most of the remaining 34% study a postgraduate degree. Only 11.7% were studying Diploma certificate. Key demographics are presented in Table 1.

**Table 1: Summary of Demographic Profile of Respondents**

		Frequency	Valid Percent (%)
Gender	Male	288	65
	Female	144	35
Age	Less than 18	8	1.9
	18 to 25	288	65
	26 to 35	132	32
	36 to 45	4	1
Educational level	Diploma	48	11.7
	Bachelor	224	54.4
	Postgraduate	140	34
Nationality	UAE	372	90.3
	Foreigners	40	9.7
Total		412	

**4.2 Measurement Model Assessment**

This study employed Structural Equation Modeling-Variance Based (SEM-VB) through Partial Least Squares (PLS) method to analyze the research model using the software of SmartPLS 3.0 [60]. After the descriptive analysis, this study follows the two-stage analytical technique recommended by Anderson & Gerbing, 1988 [61]; Hair, Hult, Ringle, & Sarstedt, 2017 [62] starts with the measurement model assessment (validity and reliability), followed by the structural model assessment (testing the hypothesized relationships). Schumacker & Lomax, (2004) [63]; and (Hair et al., 2010) [64] indicate that the two steps assessment procedure which includes measurement model and structural model has an advantage over the one step assessment procedure. According to Hair et al., (2017) [62] measurement model specifies how each construct is measured, while structural model specifies how the variables are related to each other in the structural model. The main reasons for choosing PLS as a statistical method for this study that for both measurement and structural model PLS offer simultaneous analysis which leads to more accurate estimates [65].

The assessment of measurement model was done through construct reliability as well as validity (including convergent and discriminant validity). For *Construct reliability*, this study tested the individual *Cronbach’s alpha* coefficients to measure the reliability of each of the core variables in the measurement model. The results indicate that all the individual Cronbach’s alpha coefficients ranging from 0.883 to 0.936 were higher than the suggested value of 0.7 [66]; [67]. Additionally, for testing construct reliability all the *composite reliability* (CR) values ranging from 0.919 to 0.953 were higher than 0.7 [68]; [69]; [70] which adequately indicates that construct reliability is fulfilled. Therefore, the achieved Cronbach’s Alpha and CR for all constructs were considered to be sufficiently error-free.

Factor loading was used to test *indicator reliability*. High loadings on a construct indicate that the associated indicators seem to have much in common, which is captured by the construct [62]. Factor loadings greater than 0.50 were considered to be very significant [64]. The loadings for all items exceeded the recommended value of 0.5. The loading for all items in the model has therefore fulfilled all the requirements. For testing *convergent validity* (the extent to which a measure correlates positively with alternative measures of the same construct), this study used the average variance extracted (AVE), and it

indicated that all AVE values were higher than the suggested value of 0.50 [64] ranging from 0.729 to 0.835. The convergent validity for all constructs has been successfully fulfilled and adequate convergent validity exhibited as Table 2 shows.

**Table 2: reliability measures and convergent validity measures**

		Loading	Mean	St. Deviation	$\alpha$ >0.7	CR >0.7	AVE >0.5
<i>Higher Education Service Quality</i>	AB1	0.918	3.632	0.4542	0.984	0.985	0.578
	AB2	0.945					
	AB3	0.883					
	AB4	0.924					
	ABE1	0.927					
	ABE2	0.944					
	ABE3	0.939					
	ABE4	0.929					
	ABE5	0.933					
	ABE6	0.893					
	AP1	0.913					
	AP2	0.946					
	AP3	0.933					
	COMP1	0.947					
	COMP2	0.951					
	COMP3	0.953					
	CUR1	0.930					
	CUR2	0.861					
	CUR3	0.937					
	CUR4	0.925					
	GI1	0.915					
	GI2	0.881					
	GI3	0.911					
	LS1	0.923					
	LS2	0.825					
	LS3	0.888					
	PEDG1	0.907					
	PEDG2	0.923					
	PEDG3	0.968					
	PEDG4	0.928					
	SFQ1	0.852					
	SFQ2	0.869					
SFQ3	0.884						
SFQ4	0.868						
SFQ5	0.820						
SFQ6	0.876						
SI1	0.941						
SI2	0.828						
SI3	0.921						
SI4	0.916						
TQ1	0.836						
TQ2	0.846						
TQ3	0.923						
TQ4	0.929						
TQ5	0.891						
TQ6	0.896						
TQ7	0.834						
TQ8	0.854						
<i>Student Happiness</i>	HAP1	0.755	3.96	0.4582	0.905	0.934	0.711
	HAP2	0.751					
	HAP3	0.737					
	HAP4	0.758					
	HAP5	0.824					
	HAP6	0.806					
<i>Student behavioral intentions</i>	BI1	0.933	3.612	0.5672	0.919	0.939	0.756
	BI2	0.904					
	BI3	0.919					
	BI4	0.887					
	BI5	0.840					

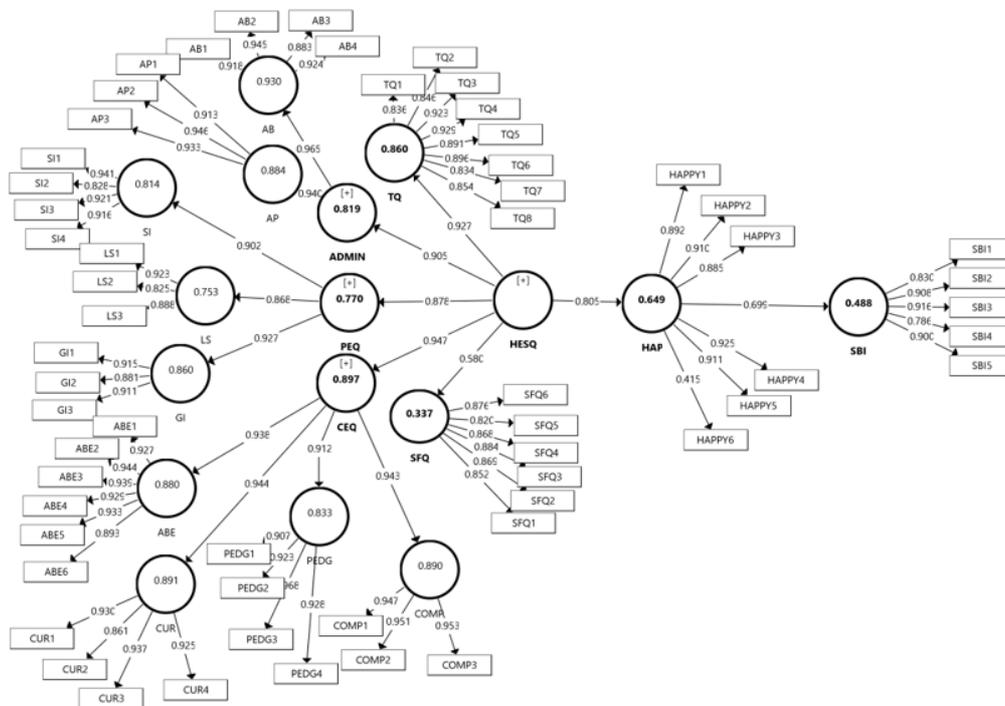
The results of discriminant validity by using the Fornell-Larcker criterion is shown in Table 3, where the square root of the AVEs on the diagonals, as represented by the bolded values, are higher than the correlations between constructs (corresponding row and column values). This indicates that the constructs are strongly related to their respective indicators compared to other constructs of the model [71]; [72], thus suggesting a good discriminant validity [62]. In addition, the correlation between exogenous constructs is less than 0.85 [73]. Hence, the discriminant validity of all constructs is fulfilled.

**Table 3: Discriminant validity results**

	<i>HAP</i>	<i>HESQ</i>	<i>SBI</i>
Student Happiness ( <b>HAP</b> )	<b>0.843</b>		
Higher Education Service Quality ( <b>HESQ</b> )	0.805	<b>0.880</b>	
Student Behavioral Intention ( <b>SBI</b> )	0.699	0.760	<b>0.869</b>

**4.3 Structural Model Assessment**

Hair, Hult, Ringle, & Sarstedt, (2017) [62] suggested assessing the structural model by looking at the beta ( $\beta$ ),  $R^2$  and the corresponding t-values via a bootstrapping procedure with a resample of 5,000. Moreover, they recommend reporting the effect sizes ( $f^2$ ) as well as the predictive relevance ( $Q^2$ ). As Sullivan & Feinn, 2012 [74] argue that the p-value determine whether the effect exists but it does not reveal the size of the effect.



**Key:** HESQ: Higher Educational Service Quality; HAP: Student Happiness; SBI: Student Behavioral Intentions

**Figure 2: PLS algorithm results**

**4.3.1 Hypotheses Tests:**

The structural model assessment as shown in Figure 2 and Table 4 provides the indication of the hypothesis tests, with 3 out of the 3 hypotheses are supported. HESQ significantly predicts HAP. Hence, H1 is accepted with (B=0.805, t=34.717, P<0.001) Furthermore, HAP significantly predicts SBI. Hence H2 is supported with (B=0.699, t=25.884, P<0.001). HESQ and HAP are explaining 48.8 % of the variance in OP. The R<sup>2</sup> values achieved an acceptable level of explanatory power as recommended by Cohen (1988) [75] indicating a substantial model.

**Table 4: Hypotheses testing results**

H	Constructs' relation	Beta	Error	T Statistics	P Values	Decision	F <sup>2</sup>	Q <sup>2</sup>
<b>H1</b>	HESQ -> HAP	0.805	0.023	34.717	0.000	Supported	1.847	0.413
<b>H2</b>	HAP -> SBI	0.699	0.027	25.884	0.000	Supported	0.954	0.332
<b>H3</b>	HESQ -> HAP -> SBI	0.563	0.035	15.927	0.000	Supported		

**Key:** HESQ: Higher Educational Service Quality; HAP: Student Happiness; BI: Behavioral Intentions

This study also assessed effect sizes (f<sup>2</sup>). Effect size f<sup>2</sup> determines whether an exogenous latent construct has a substantial, moderate or weak impact on an endogenous latent construct [31]. [34] recommend to test the change in the R<sup>2</sup> value. Cohen (1988) [75] suggested a guideline to measure the magnitude of the f<sup>2</sup> which is 0.35 (large effects), 0.15 (medium effects), and 0.02 (small effects). The result of f<sup>2</sup> as Table 4 shows, that two relationship with large effect sizes. Further, by using the blindfolding procedure this study examined the power of research proposed model regarding the predictive relevance. As recommended by Hair et al., (2017) [62] the blindfolding procedure should use only on the endogenous constructs with a reflective measurement. If the value of Q<sup>2</sup> is greater than 0 then the predictive relevance of the proposed model exists for a certain endogenous construct [77]; [62]. As Table 4 shows that all the values of Q<sup>2</sup> greater than zero indicate that there is an adequate predictive relevance for the proposed model. For the Q<sup>2</sup> values, Hair et al., (2017) [62] suggested values of 0.35 (large), 0.15 (medium), and 0.02 (small) as a relative measure of predictive relevance, and the result of this study shows that all the exogenous have large predictive relevance.

According to the bootstrapping's analysis, there is a significant indirect impact in the relationship between HESQ and SBI via HAP with a t-value of 15.927 and p-value<0.001. as indicated by [67] that the mediation effect exist when the indirect impact of HESQ and SBI via HAP with boot 95% CI: [LL = 0.497, UL = 0.632], dos't straddle a zero in between. Hence H3 was supported, (see table 4).

**5. Discussion.**

According to the hypotheses results, this study model points out the outcomes in a separate relationship. The hypotheses have shown that higher education service quality

positive and significant influences on student happiness. Education does not imply the usual system without quality assurance in the university. Higher education service quality follows technical and functional quality that enhances student engagement with happiness. Generally, higher education service quality perception is based on student judgment of the services provided by the university, for example, the relationship between the student, administration and staff [54].

Hellén & Sääksjärvi, (2011) [79] have investigated that happiness is the predictor of service quality that enhances user commitment. The effect of the event for the user increases the happiness with service quality and satisfaction [46]. Desmeules, (2002) [80] have provided some insight by adding that happiness with purchases is related to general happiness, and marketing strategies should strive for such an outcome. On the other hand, higher education service quality effects on behavioural intention in direct and indirect influence. It is common and several scholars have identified that service quality positively effects on behavioural intention in the business and purchase condition [81]; [82]. The behavioural intention as a signal of the customer will remain or exit the connection with the service provider. Moreover, Zeithaml et al., 1996 [12] investigated that behavioural intention describes word of mouth, interaction to other, experiential feedback and convey other with positive advertise with the service provider. The indirect effects of service quality on behavioural intention indicate the education quality with service encourage to be happy and intend to come back again. The behavioural intention for the higher educations students denotes the continuous attachment and readmit for the influence of service quality trough happiness.

## **6.0 Implications.**

The study emphasizes two implications: theoretical and managerial implications. The results showed that the effect of higher education service quality on student happiness toward the behavioural intention. Moreover, higher education service quality directly influences on behavioural intention. First, the theoretical implication that stands for relationships among the constructs which uttered for possible outcomes forms the theoretical evidence. It indicates the result of the research that we identified of model constructs relationship-based contribution. There are an imposing variety of theoretical rationales to sustain the perspective that university administrative settings provide a more fruitful venue for the influencing factors of behavioural intention. The findings of the study are consistent with those of prior research conducting that service quality is significantly determinant of student happiness and happiness influence behavioural intention [12].

Therefore, the managerial implications comprise the observations made for making practical decisions to the organization. In this study, the theoretical implication observes the identifications to suggest for practical implantation and adapt to the strategies and workplace for future progression. Accordingly, relationship-based suggestions require providing indications such as higher education service quality deploy the student happiness by increasing student happiness and willing to participate in the university services to ensure quality. On the hand, service quality enhances behavioural intention to develop the service in terms of remain students andreadmit the next degree of the spread word of mouth. So, these findings suggest the top management to imply the idea for

reducing lacking and weaknesses of the organization and improve behavioural intention for future stability.

## **7.0 Limitation and Future Research.**

The results of this research should be interpreted cautiously. Perhaps a serious limitation of this study was its focus on a single organization, thus precluding the generalization of findings to other organizations including manufacturing and public sectors [83]. The data were gathered from single respondents, which might result in possible response bias. Future research should strive to gather data from firms across whole supply chains. Another shortcoming of this study is the lack of adequate sample size which hindered us to apply more rigorous statistical tests such as structural equation models. The study should be regarded as an exploratory study and be used as a basis for further deepened research with relatively large data sets [84]. Therefore, future research may examine the proposed associations by incorporating contextual variables into the framework including organizational type, structure, and intraregional variations to further probe into contingencies and boundary conditions of relationships examined in this study [85]. Finally, there is a need for further conceptualization and verification of the factors used in this study, following two rigorous factor analyses. If these factors with the same practices hold in other research settings, it could be possible to proceed with further conceptualization and theorization around the identified factors and test new hypotheses empirically.

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