

# The Influence of Perceived Effective Sanctions on Customer's Initial Trusting Beliefs and Initial Trusting Intention towards Unfamiliar Web Retailers

Chiet-Bing Wong  
Universiti Teknologi Malaysia  
[wongchietbing@gmail.com](mailto:wongchietbing@gmail.com)

Khalil Md Nor  
Universiti Teknologi Malaysia  
[m-khalil@utm.my](mailto:m-khalil@utm.my)

---

## ABSTRACT

Past studies have conceptualized initial trust in diverse ways. Although many have examined the effect of perceived effective sanctions on initial trust, the outcomes are still unclear, and more aspects remain untapped. As such, this study assesses the effect of perceived effective sanctions on customers' initial trusting beliefs and initial trusting intentions towards unfamiliar web retailers. Data collected from a survey were statistically analyzed using the Structural Equation Modelling (SEM) technique. As a result, perceived effective sanctions displayed a significantly positive effect on both initial trusting beliefs and intention. This study enhances the understanding of initial trust and its association with perceived effective sanctions. It also offers further understanding of the effect of the construct on initial trust within the under-researched area in Malaysia. Practically, this study facilitates less reputable web retailers in devising effective strategies to build initial trust amongst consumers.

**Keywords:** Trust, Initial Trust, Perceived Effective Sanctions, E-commerce

---

## 1. INTRODUCTION

Within the online context, purchasing goods from an unfamiliar web retailer is indeed risky [1, 2]. Consumers tend not to purchase unless trust has been established [3]. Due to the lurking uncertainty, consumers may decide to purchase from well-established websites, such as Amazon, Lazada, Shopee, and Tesco online stores. Therefore, websites owned by small businesses are constantly at a disadvantage against larger competitors with established reputations [4]. Recently, more retailers in Malaysia, mostly comprised of Micro, Small, and Medium Enterprises (MSMEs), have begun venturing into online platforms. This is due to the emerging trends of online shopping

and the Coronavirus Disease 2019 (Covid-19) outbreak that adversely affected almost all offline business sales and thus, leading them to adopt the alternative of having an online business. As more local businesses are bound to join online markets, one of the greatest challenges is gaining success in an extremely competitive online environment, which is already flooded with many competitors from local to international and small to conglomerate business players. With consumers being the epicenter of every business, the success of online businesses relies heavily on consumers' acceptability of the offerings from companies.

The lack of trust has been identified as one of the greatest barriers that inhibit online transactions [5-9]. It is one of the main hindrances Malaysian consumers experience when it comes to making online purchases. The latest electronic commerce (e-commerce) consumer survey conducted by the Malaysian Communication and Multimedia Commission (MCMC) in 2018 unraveled that only 51.2% of Malaysians shopped online, while many did not do so due to a lack of trust [10]. This phenomenon is not surprising because of the physical and temporal distance between buyers and sellers in the online setting that creates uncertainty, increases risk through the delay between purchase and delivery, as well as asymmetric information between the two parties [11]. A transaction that involves one transacting with an unfamiliar web retailer for the first time tends to be riskier. In the presence of such risk and uncertainty, a customer may lack confidence in the retailer and hence, has difficulty trusting the retailer in the initial stage. This initial lack of trust appears to be an irking issue faced by new web retailers that must be addressed at any cost. Hence, it is integral for new online business players (e.g., MSMEs) to understand customers' initial trust and identify other related influential factors that can develop this initial trust.

Initial trust has been extensively investigated. Various constructs have been identified as influential factors that can develop initial trust. Kuan and Bock [12], Chau et al. [13], and Bock et al. [14] revealed that effective sanctions, which refers to the perception that customers have the ability to impose punishment on certain web retailers, can help build customers' initial trust in the retailer. These studies may serve as a guide to present and future web retailers that have a specific target to penetrate the Malaysian market, as well as to devise viable strategies that focus on building the initial trust among consumers. Upon reviewing these past studies, there is however still room for improvement.

First, the term "initial trust" must be defined accurately so that it can offer a more comprehensive illustration. Based on the definitions, discussions, and most importantly, the items that measure initial trust retrieved from past studies, different conceptualizations of initial trust have been provided. It is confusing to ascertain what "initial trust" is and its relationship with perceived effective sanctions as a factor of initial trust. This highlights the need to assess the conceptualizations as well as to identify and select the best conceptualization. It removes the confusion clouding what initial trust is exactly and its relationship with the initial trust factor. The conceptualization by McKnight et al. [15] best describes initial trust. From the lens of

the Theory of Reasoned Action (TRA), McKnight and his colleagues conceptualized initial trust by clearly dividing it into two separate but interrelated components: initial trusting beliefs (one's belief in one that is unfamiliar but has trustworthiness characteristics – competency, benevolence, and integrity) and initial trusting intention (one's willingness to rely on someone unfamiliar). It is unlike several past studies [12, 14] that only viewed initial trust as initial trusting beliefs while ignoring initial trusting intention as the essential component of initial trust. As for Chau et al.'s [13] study, initial trust has been broadly termed based on both initial trusting beliefs and initial trusting intention which could lead to confusion in ascertaining which of the two refers to initial trust. Since McKnight and his colleagues offer the best conceptualization, the related work was deployed in this present study to theorize initial trust and to construct an initial trust model. Adopting their conceptualization offers a better understanding of initial trust and its relationship with the initial trust factor.

Second, some neglected constructs can be further explored to better comprehend their related correlations. One such relationship is between the perceived effective sanctions and the initial trusting intention. Perceived effective sanctions were introduced by [12–14] as an antecedent to initial trust. Due to their initial trust conceptualization, it can be concluded that the studies [12, 14] had assessed the effect of perceived effective sanctions on initial trusting beliefs while neglecting initial trusting intention, which is the other key component of initial trust. This omission offers an opportunity for researchers to explore the effect of perceived effective sanctions on the initial trusting intention. Referring to McKnight's trust-related studies (see [15, 16]), initial trusting intention differs from initial trusting beliefs, wherein the former indicates a firmer commitment to initial trust. It has better predicting power on the specific behavioral intention that leads one to indulge in certain behaviors (i.e., making a purchase, heeding advice, and providing personal information).

As for Chau et al.'s [13] study, it is unclear if perceived effective sanctions are an antecedent to initial trusting beliefs or initial trusting intention due to the prescribed measurement procedure. The exact effect on each component remains vague. To bridge the gaps mentioned above, the present study proposes a research model based on the TRA that underpins McKnight's studies, along with the incorporation of perceived effective sanctions to assess its effect on both initial trusting beliefs and the initial trusting intention. Apart from looking into the effect of perceived effective sanctions on initial trusting beliefs and the initial trusting intention, it also demonstrates the relationship between initial trust antecedent and initial trusting intention, which remains untapped [12, 14]. Overall, this study provides improved understanding about initial trust and its association with an initial trust antecedent – perceived effective sanctions. It offers new knowledge on the untapped relationship between perceived effective sanctions and the initial trusting intention. Furthermore, as past studies were only conducted in Singapore [12], Hong Kong [13], and Korea [14]; the findings reported in this study enhances the understanding of the constructs in influencing one's initial trust within the Malaysian context, which is underexplored. This also helps new

web retailers penetrate the Malaysian market and devise effective strategies to build customer's initial trust for long-term success.

This paper is organized as follows. The next section presents the review of literature related to initial trust. This is followed by the third section that describes the research model and the research hypotheses. Section four elaborates the research methods used to validate the research model and section five presents the analysis outcomes. This study concludes with the discussion of the results, study implications and limitations, as well as suggestions for future research.

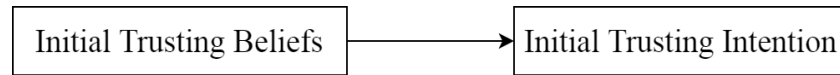
## **2. LITERATURE REVIEW**

Referring to the vast literature, initial trust is no longer a new area of research. Past studies had conceptualized initial trust differently, proposed various initial trust antecedents, and examined its effect on initial trust that they had conceptualized. Reviews of the literature revealed that the conceptualization from McKnight best describes initial trust.

### **2.1 McKnight's Initial Trust Conceptualization**

McKnight et al.[15] were among the earliest to study initial trust in online transactions. Based on TRA, McKnight and colleagues constructed trust in their models by deconstructing it into two separate components. The first component refers to trusting beliefs, which refers to one's beliefs that an online vendor has characteristics beneficial to oneself, such as competence, benevolence, and integrity. Competence denotes one's belief that an online vendor could provide what one needs; benevolence signifies one's belief that an online vendor cares about and is motivated to act in one's interest; while integrity indicates one's belief that an online vendor is honest and fulfils promises. The next component is the trusting intention that denotes one's willingness to depend on an online vendor.

McKnight and colleagues was also based on Ajzen's [17] research preposition that positive beliefs toward an action has a positive effect on the intention to perform the target action and further suggested a positive correlation between trusting beliefs and trusting intention. Accordingly, these two distinct components are strongly interrelated, whereby the existence of trusting beliefs about an entity is the most essential element in forming a trusting intention. Trusting beliefs are crucial as they represent the only input in a trusting intention decision that is specific to a given entity. The term "initial" in initial trust proposed by McKnight et al. [16] represents trust in an unfamiliar online vendor whom the consumer has neither past experience nor interaction. Hence, McKnight et al. [16] asserted that initial trusting beliefs leads to initial trusting intention towards an unfamiliar online vendor (see Figure 1). Studies on initial trust by McKnight has significantly contributed to the literature in terms of a range of initial trust models and a set of antecedents of initial trust.



**Figure 1.** Initial trust construct and its relationship.

## **2.2 McKnight’s Initial Trust Related Models and Initial Trust Antecedents**

Work by McKnight (see [15, 16]) and other researchers (see [2, 4, 18-21]) who also studied online transactions and extended the work undertaken by McKnight, proposed and validated various constructs related to the antecedents of initial trust. Upon analyzing the properties of the constructs (i.e., definition and items used to measure the constructs) adopted by the above researchers, seven representative constructs have been identified as initial trust antecedents, namely: situation normality, structural assurance, disposition to trust, perceived website quality, perceived web retailer reputation, third-party brand image, and third-party brand awareness. The literature review further signified another important initial trust antecedent—perceived effective sanctions.

## **2.3 Effective Sanctions –A Powerful Form of Social Capital that affects Customers’ Initial Trust**

The term “perceived effective sanctions” refers to the expectation of benign behavior of retailers based on the sanctions that customers can impose on them [14]. This notion was based on the concept initiated by French and Raven [22] related to the coercive power that measures one’s perceptions of his or her ability to impose punishment. This includes customers punishing retailers who violate the norm, values or goals via complaint measures or legal means. Conceptually, perceived effective sanctions are quite similar to the calculative process of forming trust [23], calculus-based trust [24], and deterrence-based trust [25]. These concepts postulate that a customer will perform cost-benefit analysis in a situation where another party might cheat or ultimately cooperate in the relationship. Some studies (see [12-14]) have empirically discovered the significantly positive effect of one’s perceived effective sanctions on his or her initial trust toward an unfamiliar online retailer. These studies had conceptualized initial trust differently from the way studies by McKnight had conceptualized.

Kuan and Bock [12] and Bock et al. [14] had conceptualized initial trusting beliefs as termed by McKnight. Since they suggested that perceived effective sanctions are an important antecedent to initial trust, its effect on initial trusting beliefs was assessed while omitting its effect on the initial trusting intention. It is noteworthy to highlight that the initial trusting intention, unlike initial trusting beliefs, indicates a firmer commitment to initial trust and has a better predicting power on specific behavioral intention that may lead one to indulge in certain behaviors, such as making a purchase, adhering to advice, and providing personal information [15, 16]. The effect of perceived effective sanctions on initial trusting intention needs exploration, mainly

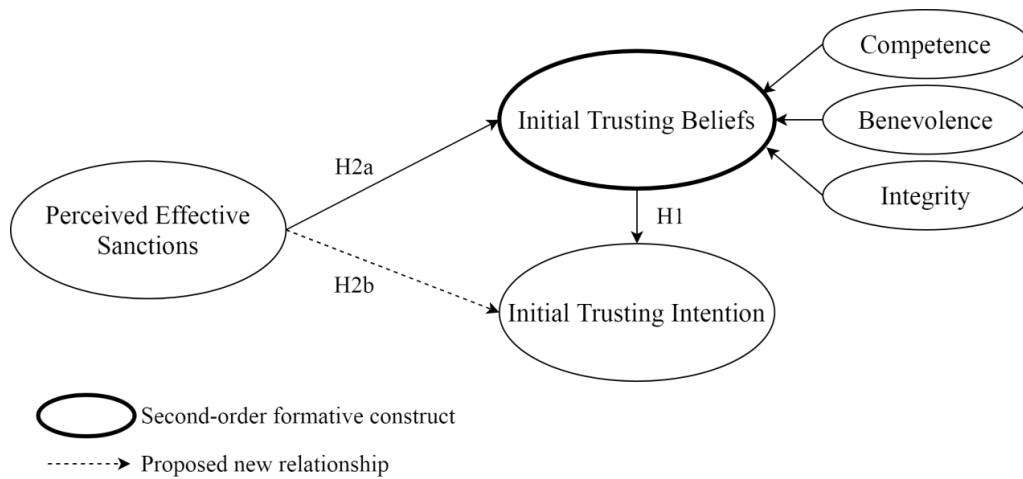
due to the omission of the latter in past studies (see [12, 14]). Studying this untapped area offers new understanding on the correlation between the constructs.

Chau et al.[13] conceptualized initial trust using items that measured both initial trusting beliefs and the initial trusting intention. Nonetheless, it was unclear if they had determined the effect of perceived effective sanctions on initial trusting beliefs or on the initial trusting intention. This demands further exploration on the specific effect of perceived effective sanctions on initial trusting beliefs and intention to make clear the relationship between the constructs.

As mentioned earlier, studies undertaken by McKnight on initial trust had postulated two separate yet interrelated components (initial trusting beliefs and initial trusting intention). The perceived effective sanctions depicted by Kuan and Bock [12], Chau et al. [13], and Bock et al. [14] have not been tested with McKnight's conceptualization of initial trust and hence, this opportunity to assess the effect of perceived effective sanctions on both initial trusting beliefs and the initial trusting intention.

### **3. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT**

The proposed research model is illustrated in Figure 2. Based on McKnight's seminal work, this study adopted Fishbein and Ajzen's [26] TRA and Ajzen's [17] research propositions to construct initial trust. Initial trust is composed of two separate but interrelated components —initial trusting beliefs and initial trusting intention. Further, this study incorporated perceived effective sanctions —a crucial initial trust antecedent reported in [12-14] but omitted in McKnight's studies. Subsequently, this present study investigated the relationship between the perceived effective sanctions and initial trusting intention, which is untapped in Kuan and Bock [12] and Bock et al.'s [14] studies, as well as a specific relationship which was disregarded in Chau et al.'s [13] study. All constructs embedded in the proposed research model were composed of reflective constructs, apart from initial trusting beliefs which was modelled as a formative construct comprising of three sub-constructs, namely: competence, benevolence, and integrity. These three sub-constructs conceptually are the distinctive beliefs of initial trusting beliefs. They were combined in a single second-order construct, instead of being distinguished from each other, mainly because since the subjects knew little about the trustee, they would not be able to differentiate the components of trusting beliefs in a discrete manner [27]. For instance, benevolence and integrity are closely related beliefs as both imply that the trustee will do the trustor good instead of harm. When a trustor deals with an unknown trustee and feels good about the said trustee, the trustor's benevolence may be equated with integrity or vice versa during the initial interaction. The following sub-sections discuss the formulated research hypotheses for this study. The relationships among the constructs are explained based on literature as well as logical, theoretical, and empirical support.



**Figure 2.** Research model.

### 3.1 Initial Trusting Beliefs and Initial Trusting Intention

As defined by McKnight et al. [16], initial trusting beliefs in this study refers to one's beliefs that an unfamiliar web retailer has competence, benevolence, and integrity. As for the initial trusting intention construct, it is one's willingness to rely on unfamiliar web retailer. As highlighted by Ajzen [17], initial trusting beliefs impacts initial trusting intention. In online transactions, if customers strongly sense that an unknown web retailer is kind-hearted, capable, honest, and would not cheat; the tendency of the customers to rely on the retailer escalates. This assumption was put forward by McKnight et al.[15], which was later empirically supported by McKnight et al. [16], Lowry et al. [18], Lowry et al. [2], Yang et al. [19], Eastlick and Lotz [20], Kim and Kim [4], and Lowry et al. [21]. Based on the above assumption and empirical support, the following hypothesis is proposed:

H1: Initial trusting beliefs positively affects the initial trusting intention.

### 3.2 Perceived Effective Sanctions

As defined by Bock et al. [14], perceived effective sanctions refer to one's expectation of benign behavior from the web retailer based on sanctions that can be imposed on them. When customers deal with an unfamiliar web retailer for the first time and have zero knowledge about the retailer, the perception of sanctions can make them feel good about the retailer. If customers think that they can impose punishment on the retailer via complaint measures or other legal means, punishment would provide them the perception that the retailer would avoid taking advantage of customers. This causes customers to strongly believe that the retailer is trustworthy. This supposition has been empirically supported by Kuan and Bock [12] and Bock et al. [14]. Hence, the following is hypothesized:

H2a: Perceived effective sanctions positively affect initial trusting beliefs.

Perceived effective sanctions can affect initial trusting intention as well. Dealing online with unknown web retailers is risky due to the possibility that the retailers might break their promise. Prior to purchasing, one may worry if the purchase outcome meets the promise made by retailers. However, if customers think that they can impose sanctions on retailers who fail to keep their word through complaint measures or other legal means, the ability to sanction would cause the customers to believe that the retailers would avoid taking advantage of them. This is mainly due to the perception that retailers have more to lose than gain through dishonest behavior. This could reduce risk of transaction loss and thus, increasing customers' inclination to rely on retailers. As such, the following hypothesis is proposed:

H2b: Perceived effective sanctions positively affect the initial trusting intention.

#### **4. METHODOLOGY**

In this study, the quantitative method was adopted to validate the conceptual model and its associated hypotheses. A questionnaire was used as the step-by-step survey tool to gather data. The respondents were required to first respond to items relating to their background (i.e., gender, race, Internet experience, and online shopping experience). Next, they had to visit an unknown website and perform a specific shopping task set by this study. They were then required to answer questions relating to their perception on effective sanctions, initial trusting beliefs, and the initial trusting intention. The respondents were told that they would be awarded with Ringgit Malaysia (RM) 5 after completing the survey and mock shopping task. The mock shopping task was the purchase of a laptop from an unfamiliar website. The respondents were asked to visit an unfamiliar website to ensure that they could recall the experience and to provide better and more accurate responses in completing the questionnaire pertaining to initial trust. The respondents were required to assume that they were planning to buy a laptop as it represented a high-involvement product that demands extensive information gathering and problem solving in making a purchasing decision, which includes assessing the trustworthiness trait exhibited by the retailer. This ensured that the respondents read the important content (i.e., business background, return and exchange service, and the availability of a dispute team), and the perceptions related to the examined constructs could be captured. Setting up this specific shopping task – buying a laptop (high involvement product) – also enabled this study to determine if the findings differed from past studies that had studied initial trust in other buying conditions, such as buying cameras [13], groceries [12] and experience goods [14]. To ensure that the website was new, and the respondents visited the website for the first time, they were asked to visit the dummy website designed for this study called Mr. IT SHOP, an online site that sells computer products (see Figure 3).



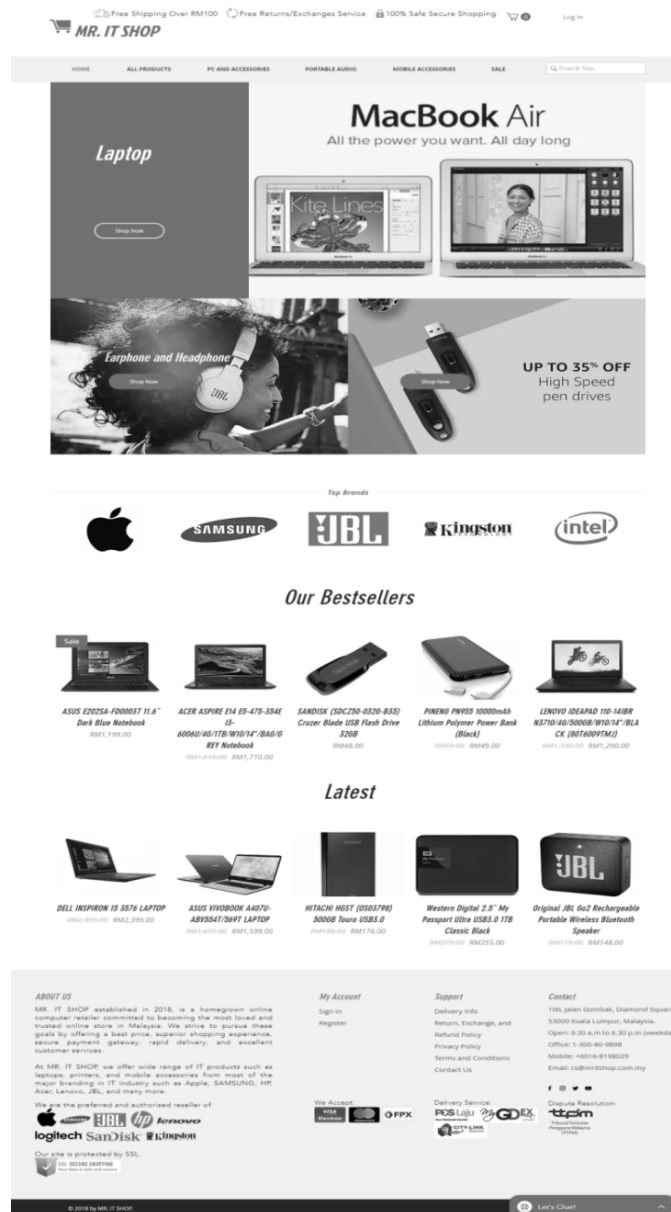


Figure 3. Screenshot of the homepage of the dummy website.

Observations were made by the researcher when the respondents browsed the dummy website. Apart from the observations, the researcher asked a few quick questions at the end of the survey, such as business background, return and exchange service, availability of a dispute team, social media platform used by the business, buying steps, and the product brand that they planned to buy; to ensure that the respondents had indeed browsed the webpage and read the important content. This ascertained perceptions related to the examined construct – perceived effective sanctions – were captured, along with its effect on initial trust.

The questionnaire items used to measure the constructs embedded in the model were adapted from past validated instruments. Prior to the actual data collection, a pre-test in the form of a focus group and a pilot study were conducted on 30 respondents to assess the content validity of the instrument, the internal consistency of items for each

construct, as well as the design, the clarity, and the wording of the items. The instrument was slightly improved based on the feedback gathered during the pre-test and pilot study and the definitive version of the instrument is presented in Table 1. A reliability test was run using SPSS 24.0 software to assess the internal consistency of the items for each construct. As a result, the Cronbach's alpha coefficient values of all constructs exceeded 0.7, which signified that they were reliable [28].

**Table 1.** Items of the measuring construct

Construct	Item adapted in this study	Sources	Reliability Test
Perceived Effective Sanctions (PES)	Since I can report the problems of my online purchases with MR. IT SHOP through the website itself or social media (i.e., give bad rating, provide negative comments, and share problems to the public to make it go viral), PES 1. I believe that MR. IT SHOP is likely to take appropriate action to take care of my problems. PES2. I believe that MR. IT SHOP is likely to solve these problems. PES3. I believe that MR. IT SHOP is likely to be more careful in the future. PES4. I believe that MR. IT SHOP is likely to provide solutions.	[14]	0.865
Initial Trusting Beliefs (second-order formative construct)	Competence (first-order reflective construct) COM1. I think that MR. IT SHOP is competent in handling online transactions. COM 2. I think that MR. IT SHOP performs its role of handling online transactions very well. COM3. I think that overall, MR. IT SHOP is capable at meeting customer needs. COM4. I think that, in general, MR. IT SHOP is very knowledgeable about the business it operates.	[16]	0.738
	Benevolence (first-order reflective construct) BEN1. I believe that MR. IT SHOP would act in my best interest. BEN2. I believe that MR. IT SHOP would do its best to help me if I required help. BEN3. I believe that MR. IT SHOP would be interested in my wellbeing, not just its own. BEN4. I believe that MR. IT SHOP would be concerned about what is best for me.	[16]	0.853

**Table 1.** Items of the measuring construct

Construct	Item adapted in this study	Sources	Reliability Test
	Integrity (first-order reflective construct) INT1. I think that MR. IT SHOP is truthful in its dealings with me. INT2. I think that I would characterize MR. IT SHOP as honest. INT3. I think that MR. IT SHOP would keep its commitments. INT4. I think that MR. IT SHOP is sincere in how it deals with me.	[16]	0.925
Initial Trusting Intention (ITI)	ITI1. If I need to buy things, I will feel comfortable depending on MR. IT SHOP. ITI2. I can always rely on MR. IT SHOP whenever I need to buy things. ITI3. I feel that I could depend on MR. IT SHOP to conduct my buying activities. ITI4. If I need thebest product with a specific feature, I would be willing to rely on the information provided by MR. IT SHOP.	[29]	0.927

The actual survey was conducted after the instrument was validated. Undergraduate students were selected as respondents as this demographic represents an important online shopper segment since most of them are the most connected, experienced, and frequent users of the Internet. The total respondents were 160, which exceeded the minimum sample size of 107 required for the regression analysis with two predictor variables based on the estimation using G\*Power software. Data were collected from Universiti Malaysia Sabah and Universiti Malaya located in the East and West Malaysia, respectively, between 6 and 27 May 2019.

## 5. DATA ANALYSIS

Data retrieved from the selected 160 respondents were transferred to statistical software for preliminary data analysis using SPSS 25 and model testing using SmartPLS 3.

### 5.1 Preliminary Data Analysis

The preliminary data analysis revealed three univariate outliers and two multivariate outliers, which were removed from the dataset with the remaining sample being 155. There was neither missing data nor any problematic common method bias. In addition, the data displayed univariate and multivariate normal distribution. The background information of the final respondents (i.e., gender, ethnicity, and Internet activities) is listed in Table 2. From the 155 respondents, there were slightly more female respondents than male respondents. Most of the respondents were Malays, followed by Chinese, natives from Sabah and Sarawak, as well as Indians. In terms of online shopping experience, most of the respondents had surfed the Internet for more than 10

years, spent more than eight hours a day on the Internet, visited online shopping websites, purchased online one to three times in the last six months, and spent below RM250 a year in online purchases. This indicated that the respondents were indeed familiar with the Internet and its related online shopping activities, in addition to being capable of providing the necessary information associated with online shopping.

**Table 2.** Profile of respondents.

Variable	Category	Frequency	Percentage
Gender	Male	74	47.7%
	Female	81	52.3%
Ethnicity	Malay	75	48.4%
	Chinese	36	23.2%
	Indian	15	9.7%
	Other Natives (i.e., Kadazan, Iban, etc.)	29	18.7%
Experience of using Internet	Never used the Internet	0	0
	Less than a year	0	0
	Between 1 and 5 years	10	6.5%
	Between 5 and 10 years	62	40%
	More than 10 years	83	53.5%
Average time spent on the Internet a day	Less than 2 hours	1	0.7%
	Between 2 and 4 hours	14	9%
	Between 4 and 6 hours	49	31.6%
	Between 6 and 8 hours	39	25.2%
	More than 8 hours	52	33.5%
Experience of visiting a shopping website	Yes	155	100%
	No	0	0
Frequency of purchasing via website in last 6 months	None	7	4.5%
	1 - 3 times	81	52.3%
	4 - 6 times	40	25.8%
	7 - 9 times	15	9.7%
	10 times or more	12	7.7%
Average amount spent on online shopping a year	Below RM 250	101	65.2%
	RM 251- RM 500	39	25.1%
	RM 501 - RM 750	9	5.8%
	RM 751 - RM 1000	4	2.6%
	RM1001 and above	2	1.3%

## 5.2 Research Model Analysis

To model the relationships among the constructs, this study used the reflective-formative second-order hierarchical model. All constructs were reflective, apart from the initial trusting beliefs construct, which was modelled as a second-order formative construct composed of three first-order reflective constructs (competence, benevolence, and integrity). The SmartPLS software was used to analyze this complex model that contained formative and reflective constructs. In assessing the research model, based on the guideline prescribed by Becker et al. [30], it began with first-order

reflective construct measurement model assessment, followed by second-order formative construct assessment, and lastly, the final structural model assessment.

### 5.2.1 Step 1: First-order Reflective Constructs Measurement Model Assessment

In total, 20 items were used to measure the first-order reflective constructs incorporated into the model. The assessment for these constructs and their items included determining convergent validity, internal consistency reliability, and discriminant validity. The results of convergent validity and internal consistency reliability tests are tabulated in Table 3. All 20 items surpassed the minimum requirement values of item loading and average variance extracted (AVE), as prescribed by Hair et al. [31], which were 0.7 and 0.5, respectively. This indicated that the items in each reflective construct were correlated and demonstrated adequate convergent validity. The internal consistency reliability was measured based on composite reliability (CR). The CR values for the five reflective constructs surpassed the threshold value of 0.6, as suggested by Bagozzi and Yi [32]. The items that measured each construct were correlated and reliable.

**Table 3.** The results of convergent validity test and reliability test.

Latent Variable	Items	Loading	AVE	Composite Reliability
Perceived Effective Sanctions (PES)	PES 1	0.879	0.719	0.911
	PES 2	0.853		
	PES 3	0.812		
	PES 4	0.846		
Competent (COM)	COM1	0.863	0.673	0.891
	COM2	0.858		
	COM3	0.764		
	COM4	0.792		
Benevolence (BEN)	BEN1	0.770	0.678	0.894
	BEN2	0.858		
	BEN3	0.839		
	BEN4	0.824		
Integrity (INT)	INT1	0.880	0.753	0.924
	INT2	0.863		
	INT3	0.885		
	INT4	0.843		
Initial Trusting Intention (ITI)	TI1	0.900	0.799	0.941
	TI2	0.908		
	TI3	0.913		
	TI4	0.853		

Discriminant validity in this study was assessed through cross-loading, Fornell-Lacker criterion, and Heterotrait-Monotrait Ratio of Correlations (HTMT) criterion to ensure that the construct differed from the other constructs. The results of loading and cross-loading correlations among the items in this study are tabulated in Table 4. All 20 items loaded higher on the respective construct measured than on other constructs in the model. According to Hair et al. [31], this indicated the absence of cross-loading among

the items and all reflective constructs in the model satisfied the discriminant validity criteria.

**Table 4.** Loading and cross-loading.

	BEN	COM	INT	PES	ITI
BEN1	<b>0.770</b>	0.576	0.562	0.583	0.568
BEN2	<b>0.858</b>	0.587	0.653	0.546	0.506
BEN3	<b>0.839</b>	0.538	0.622	0.525	0.482
BEN4	<b>0.824</b>	0.510	0.619	0.581	0.446
COM1	0.527	<b>0.863</b>	0.627	0.551	0.487
COM2	0.594	<b>0.858</b>	0.609	0.613	0.512
COM3	0.497	<b>0.764</b>	0.495	0.466	0.438
COM4	0.581	<b>0.792</b>	0.625	0.491	0.358
INT1	0.694	0.688	<b>0.880</b>	0.606	0.551
INT2	0.607	0.627	<b>0.863</b>	0.526	0.588
INT3	0.672	0.609	<b>0.885</b>	0.595	0.630
INT4	0.616	0.573	<b>0.843</b>	0.564	0.576
PES1	0.589	0.570	0.538	<b>0.879</b>	0.494
PES2	0.613	0.493	0.517	<b>0.853</b>	0.458
PES3	0.505	0.526	0.567	<b>0.812</b>	0.481
PES4	0.590	0.605	0.613	<b>0.846</b>	0.505
TI1	0.579	0.550	0.647	0.548	<b>0.900</b>
TI2	0.501	0.496	0.617	0.547	<b>0.908</b>
TI3	0.530	0.435	0.562	0.493	<b>0.913</b>
TI4	0.557	0.465	0.580	0.451	<b>0.853</b>

The Fornell-Lacker criterion is an approach that is used to examine discriminant validity at the construct level. It involves comparing the correlation estimates between constructs and the square root of AVE of respective constructs. Based on the results tabulated in Table 5, all the squared root of AVE for each reflective construct (diagonal values presented in bold font) exceeded the off-diagonal correlation values with other constructs. According to Hair et al. [31], this indicates that the five reflective constructs satisfied the discriminant validity criteria.

**Table 5.** Squared roots of AVE and correlation matrix.

	BEN	COM	INT	PES	ITI
BEN	<b>0.823</b>				
COM	0.671	<b>0.820</b>			
INT	0.747	0.721	<b>0.868</b>		
PES	0.678	0.649	0.661	<b>0.848</b>	
ITI	0.607	0.547	0.675	0.572	<b>0.894</b>

Another approach commonly used to examine discriminant validity at the construct level is the HTMT criterion. The HTMT ratio obtained in this study is presented in

Table 6. Overall, the inter-construct HTMT value was below the threshold value of 0.9, as suggested by Gold et al. [33]. This indicated that the discriminant validity was well established in this study.

**Table 6.** The HTMT value.

	BEN	COM	INT	PES	ITI
BEN					
COM	0.800				
INT	0.861	0.830			
PES	0.794	0.756	0.748		
ITI	0.692	0.622	0.746	0.638	

### 5.2.2 Step 2: Second-order Formative Construct Assessment

After assessing the reflective measurement model, the formative construct and its items were examined. In this study, initial trusting beliefs reflected the second-order formative construct that comprised of three first-order reflective constructs (competence, benevolence, and integrity) with each containing four items. As prescribed by Ringle et al. [34], the latent scores for the three first-order constructs were first obtained and served as manifest items for the second-order construct. The measurement model for formative construct was then assessed. The assessments determined item weight, significance level, variance inflation factor (VIF), and collinearity.

Both item weight and significance level were calculated to determine the relative importance of the formative items towards the construction of the corresponding latent construct. Table 7 shows that the item weight for trusting beliefs was above 0.1, as suggested by Andreev et al. [35] and all the items had significant t-values ( $t > 1.96$ ) which offered empirical support that these three items were essential to form the initial trusting beliefs construct.

**Table 7.** The weight, t-value, and VIF values of formative items.

Formative Construct	Item	Weight	T-Value	VIF Value
Initial Trusting Beliefs	Competence	0.390	2.800	2.269
	Benevolence	0.239	4.028	2.468
	Integrity	0.475	5.218	2.819

As for the collinearity test, this study used said test to assess the correlation between the formative items. High correlation indicates collinearity which could be problematic. To examine collinearity, the VIF for each item was calculated (see Table 7). As a result, the VIF values of all items for initial trusting beliefs construct were found to be well below the threshold value of 3.3, as prescribed by Diamantopoulos et al. [36]. Thus, collinearity was not an issue for the formative items of the constructs.

Apart from the collinearity test for the formative measurement model (indicators within formative construct), this study examined collinearity among the constructs within the

model. This test determined the presence of strong correlations among the constructs, which may cause serious problems in the multivariate analysis. This study underwent two separate collinearity tests; collinearity test between the constructs when initial trusting beliefs served as endogenous construct and when the initial trusting intention functioned as endogenous construct. The results of these tests are shown in Table 8. Apparently, the VIF values of the constructs were below the threshold value of 3.3, as recommended by Diamantopoulos et al. [36]. This signified the absence of collinearity among the constructs in the study model.

**Table 8.** Collinearity test for constructs when initial trusting beliefs and the initial trusting intention served as endogenous constructs.

	Initial Trusting Beliefs	Initial Trusting Intention
Perceived Effective Sanctions	1	2.161
Initial Trusting beliefs		2.161

### 5.2.3 Step 3: Structural Model Assessment

Once the measurement model was assessed and had met the assessments criteria, it proceeded to the final structural model assessment. The assessments included examining the direction of the path coefficient and determining the value of t-statistics. This was followed by determining the exploratory power ( $R^2$ ) of the independent constructs of the proposed model, as well as the effect size ( $f^2$ ) between the constructs.

Both path coefficient and significance levels were assessed to determine if the proposed hypotheses are supported. The values of path coefficient and t-statistics are presented in Table 9. Accordingly, the path coefficient values of the proposed relationships between the constructs were positive, while the t-statistics values exceeded 1.96. This indicated that the paths were positively and significantly related and thus, supporting hypotheses H1, H2a, and H2b.

**Table 9.** Path analysis results.

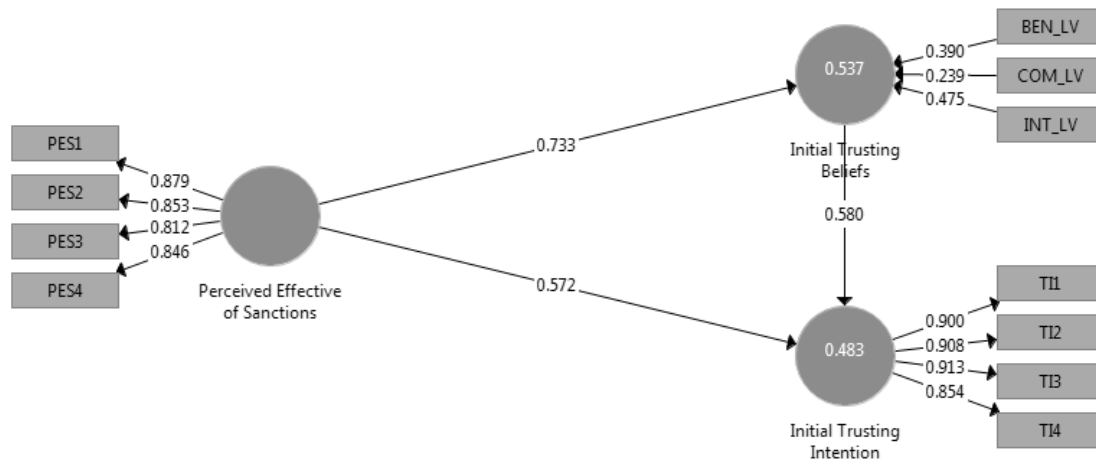
Hypothesis	Path	Path coefficient value	t-statistic value
H1	Initial Trusting Beliefs → Initial Trusting Intention	0.580	6.777***
H2a	Perceived Effective Sanctions → Initial Trusting Beliefs	0.733	18.805***
H2b	Perceived Effective Sanctions → Initial Trusting Intention	0.572	9.499***

\*\*\*  $p < 0.001$

The R-square value was subsequently assessed to determine the amount of variance in the endogenous construct explained by its corresponding exogenous constructs. According to Hair et al.'s [31] rule of thumb, R-square values of 0.25, 0.50, and 0.75



denote low, moderate, and high explanatory power, respectively. The R-square values retrieved from the model are presented in Figure 4. The model resulted in 0.537 and 0.483, which signified moderate and low explanatory power for initial trusting beliefs and the initial trusting intention, respectively.



**Figure 4.** The results of reflective-formative structural model assessment.

Apart from R-square ( $R^2$ ), the effect size ( $f^2$ ) was calculated to examine how much an exogenous construct contributed to the  $R^2$  value of an endogenous construct. It measured the change in  $R^2$  when a specific exogenous construct was omitted from the model. According to Cohen [37], the effect sizes ( $f^2$ ) of 0.02, 0.15, and 0.35 indicated small, medium, and large effects, respectively. The effect size of the model in this study is tabulated in Table 10. The perceived effective sanctions had both strong and weak effects on initial trusting beliefs and the initial trusting intention, respectively. Meanwhile, initial trusting beliefs had a medium effect on the initial trusting intention.

**Table 10.** Effect size ( $f^2$ )

Construct	Effect on Initial Trusting Beliefs		Effect on Initial Trusting Intention	
	$f^2$	Effect Size	$f^2$	Effect Size
Perceived Effective Sanctions	1.16	Large	0.02	Small
Initial Trusting Beliefs			0.30	Medium

## 6. DISCUSSION

As expected, initial trusting beliefs exhibited a significantly positive effect on the initial trusting intention towards unfamiliar web retailers. The findings support hypothesis H1 and Ajzen's [17] research proposition that this study was based upon in the development of its hypothesis. This outcome is in line with the findings of past studies (see [2, 4, 16, 18-21]), which offers empirical evidence of the link between initial trusting beliefs and the initial trusting intention. The findings indicated that when

customers dealt with an unknown web retailer for the first time, the stronger the customers believed that the retailer had competence, benevolence, and integrity, then the more likely they relied on the retailer.

In addition, the perceived effective sanctions exerted a significantly positive effect on initial trusting beliefs and hence, supporting hypothesis H2a. Similarly, Kuan and Bock [12] and Bocket al. [14] reported empirical evidence to support the link between the perceived effective sanctions and initial trusting beliefs. The results indicated that when customers dealt with an unknown web retailer for the first time, the stronger the customers felt that the retailer feared punishment and losses in case of purchasing issues, the more likely they believed that the retailer would behave ethically and not cheat.

Similarly, the perceived effective sanctions displayed significantly positive effects on the initial trusting intention. This signified that when customers dealt with an unknown web retailer, the stronger the customers felt that the retailer feared punishment and losses, the less likely they would perceive the high risk of being cheated by the retailer and hence, the more likely they relied on the retailer. The findings support hypothesis 2b, which represents the first time this relationship has been empirically validated. This adds new knowledge to the literature on the relationship between the perceived effective sanctions and the initial trusting intention, which were left unexplored by Kuan and Bock [12] and Bock et al. [14]. This simultaneously clears up the confusion that lurked in the study conducted Chau et al. [13] where it was unclear if the perceived effective sanctions had an impact on initial trusting beliefs or the initial trusting intention.

Besides enhancing the understanding about the links established among the constructs, the findings further extends the understanding regarding the impact of the perceived effective sanctions on initial trust in the Malaysia context and in the condition of purchasing a laptop, which was left unexplored in past studies [12-14]. Past studies have explored the relationship between these constructs in other contexts, such as Singapore, Hong Kong, and Korea; and in the condition of purchasing other products including camera, groceries, and experience goods. Since the outcomes are in line with past findings based on other varied contexts and other purchasing conditions, the findings are could be generalized to the Asian population and all product types. However, similar studies in other countries and in other purchasing conditions are required to ascertain this generalizability of the findings.

The study outcome also includes generating a validated research model. The model was based on a modification made to the TRA model with the inclusion of perceived effective sanctions as an antecedent to the initial trusting intention. This construct emerged as a significant antecedent that influenced customers in having initial trust of an unfamiliar e-commerce retailer. This may be useful to understand initial trust of other e-commerce sellers (e.g., manufacturers, individuals, government, etc.).

## **7. PRACTICAL IMPLICATIONS**

The findings provide useful tips for online businesses on how to build customers' initial trust. As this study assessed initial trust of an unfamiliar web retailer, the findings offer several effective measures for non-reputable businesses or new online business players to build a customer base and to generate sales. The related businesses are, for example, MSMEs that have ventured into an online business platform in recent times. The findings may serve as guidance to those seeking strategies to develop customers' initial trust, which in turn, can persuade customers to make their first purchase. This is essential as their large scale success contributes to the national gross domestic product and offers more employment opportunities. This is particularly true during this present economic downturn stemming from the Covid-19 outbreak.

Several strategies that may be adopted by online businesses in attempt to build initial trust among customers include posting information about its trustworthiness trait on their website, as well as announcing that their businesses possess competency, benevolence, and integrity in serving their customers. For instance, on the "about us" page where sellers usually post their business background, it should be highlighted that they can handle any transaction, are customer-oriented (the emphasis on putting customers' priorities ahead of anything else) and that they adhere to the principle of serving customers from an honest heart. Moreover, displaying a 'free return policy' logo (to inform the availability of free returning, exchanging, and replacement of faulty products, missing products, as well as wrong sizes and color) or third-party channel links (such as Tribunal Tuntutan Pengguna Malaysia or Tribunal for Consumer Claims) where customers can report purchasing issue on their website, leaves a perception that the businesses would have much to lose if problems arise from unpleasant purchasing experiences. These strategies can effectively lead customers to feel positive when dealing with the business and adopt a perception of having a low risk of being cheated, and a strong tendency to rely on the businesses.

## **8. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

This study has several shortcomings which future research may seek to overcome. First, the sample for this study was composed of university students mainly because most past studies concerning initial trust in online transactions highlighted that students possess relatively reasonable knowledge about IT and are closer to the online consumer population in terms of age and education levels. Nevertheless, current online consumers include working adults as well. Excluding this segment from this study opens the study to scrutiny and criticism that it may reflect a single group of population along with the issue of generalizability in representing the general online population. Hence, future research may choose to adopt a broader sample that consists of different age groups to better represent the general online consumer population.

Second, this study is a controlled study; the respondents were instructed to visit a dummy website called Mr. IT Shop and perform a mock shopping task in front of the researcher. This ensured that the respondents were new to and unfamiliar with the website, were visiting the website for the first time and performed assessments on the website based on a shopping task given to them to capture their initial trust perception. Nonetheless, a controlled study may strip away the respondents' liberty, whereby the mock shopping would have been different from a real online shopping experience despite the substantial efforts taken by the researcher to stimulate areal shopping experience by designing a professional looking website. This could lead to external validity issues as findings from an artificial setting might differ from those occurring naturally. Hence, to address the limitation of low external validity, future research may conduct an uncontrolled study without the presence of researcher while performing the mock shopping task. For instance, post-survey questionnaires may be disseminated across online forums and social networking sites to gather responses related to initial trust perception-based website that were recently visited for the first time. If equivalent results are obtained from uncontrolled study, the findings would be more generalized.

## 9. REFERENCES

- [1] D. Gefen, "Reflections on the dimensions of trust and trustworthiness among online consumers," *ACM SIGMIS Database*, vol. 33, no. 3, pp. 38–53, 2002.
- [2] P. B. Lowry, A. Vance, G. Moody, B. Beckman, and A. Read, "Explaining and predicting the impact of branding alliances and web site quality on initial consumer trust of e-commerce web sites," *Journal of Management Information Systems*, vol. 24, no. 4, pp. 199–224, 2008.
- [3] A. Susanto, H. Lee, H. Zo, and A. P. Ciganek, "User acceptance of Internet banking in Indonesia: Initial trust formation," *Information Development*, vol. 29, no. 4, pp. 309–322, 2013.
- [4] K. Kim and J. Kim, "Third-party privacy certification as an online advertising strategy: An investigation of the factors affecting the relationship between third-party certification and initial trust," *Journal of Interactive Marketing*, vol. 25, no. 3, pp. 145–158, 2011.
- [5] S. L. Jarvenpaa, N. Tractinsky, and M. Vitale, "Consumer trust in an Internet store," *Information Technology and Management*, vol. 1, pp. 45–71, 2000.
- [6] P. R. Darke, M. K. Brady, R. L. Benedictus, and A. E. Wilson, "Feeling close from afar : The role of psychological distance in offsetting distrust in unfamiliar online retailers," *Journal of Retailing*, vol. 92, no. 3, pp. 287–299, 2016.

- [7] N. T. Ha, T. L. H. Nguyen, T. P. L. Nguyen, and T. D. Nguyen, "The effect of trust on consumers' online purchase intention: An integration of TAM and TPB," *Management Science Letters*, vol. 9, no. 9, pp. 1451–1460, 2019.
- [8] B. Daroch, G. Nagrath, and A. Gupta, "A study on factors limiting online shopping behaviour of consumers," *Rajagiri Management Journal*, vol. 15, no. 1, pp. 39–52, 2021.
- [9] M. Teresa, (2021, Nov. 11). Milestone day for e-commerce and a chance to boost consumer trust [Online]. Available: <https://unctad.org/news/milestone-day-e-commerce-and-chance-boost-consumer-trust>.
- [10] Malaysian Communications and Multimedia Commission, (2018). E-Commerce consumers survey 2018 [Online]. Available: <https://www.mcmc.gov.my/skmmgovmy/media/general/pdf/ecs-2018.pdf>.
- [11] H. W. Kim, Y. Xu, and J. Koh, "A comparison of online trust building factors between potential customers and repeat customers," *Journal of the Association for Information Systems*, vol. 5, no. 10, pp. 392–420, 2004.
- [12] H. H. Kuan and G. W. Bock, "Trust transference in brick and click retailers: An investigation of the before-online-visit phase," *Information and Management*, vol. 44, no. 2, pp. 175–187, 2007.
- [13] P. Y. K. Chau, P. J. H. Hu, B. L. P. Lee, and A. K. K. Au, "Examining customers' trust in online vendors and their dropout decisions: An empirical study," *Electronic Commerce Research and Applications*, vol. 6, no. 2, pp. 171–182, 2007.
- [14] G. W. Bock, J. Lee, H. H. Kuan, and J. H. Kim, "The progression of online trust in the multi-channel retailer context and the role of product uncertainty," *Decision Support Systems*, vol. 53, no. 1, pp. 97–107, 2012.
- [15] D. H. McKnight, V. Choudhury, and C. Kacmar, "Developing and validating trust measures for e-commerce: An integrative typology," *Information Systems Departments*, vol. 13, no. 3, pp. 334–359, 2002.
- [16] D. H. McKnight, V. Choudhury, and C. Kacmar, "The impact of initial consumer trust on intentions to transact with a web site: A trust building model," *Journal of Strategic Information Systems*, vol. 11, no. 3-4, pp. 297–323, 2002.

- [17] I. Ajzen, *Attitudes, Personality, and Behavior*. Chicago, IL.: Dorsey Press, 1988.
- [18] P. B. Lowry, T. L. Roberts, and T. Higbee, "First impressions with websites : The effect of the familiarity and credibility of corporate logos on perceived consumer swift trust of websites," in Jacko J. A, Eds, *Human-Computer Interaction. HCI Applications and Services. HCI 2007. Lecture Notes in Computer Science*, vol. 4553. Springer, Berlin, Heidelberg, 2007, pp. 77–85.
- [19] M. H. Yang, B. Lin, N. Chandrees, and H. Y. Chao, "The effect of perceived ethical performance of shopping websites on consumer trust," *Journal of Computer Information Systems*, vol. 50, no. 1, pp. 15–24, 2009.
- [20] M. A. Eastlick and S. Lotz, "Cognitive and institutional predictors of initial trust toward an online retailer," *International Journal of Retail & Distribution Management*, vol. 39, no. 4, pp. 234–255, 2011.
- [21] P. B. Lowry, D. W. Wilson, and W. L. Haig, "A picture is worth a thousand words: Source credibility theory applied to logo and website design for heightened credibility and consumer trust," *International Journal of Human-Computer Interaction*, vol. 30, no. 1, pp. 63–93, 2014.
- [22] J. R. P. French Jr. and B. Raven, "The bases of social power," in D Cartwright, Eds. *Studies in Social Power*. England: Univer. Michigan, 1959, pp. 150–167.
- [23] M. Doney and J. P. Cannon, "An examination of the nature of trust in buyer-seller relationships," *Journal of Marketing*, vol. 61, no. 2, pp. 35–51, 1997.
- [24] R. J. Lewicki and B. B. Bunker, *Trust in Relationships: A Model of Trust Development and Decline*. San Francisco, CA: Jossey-Bass, 1995.
- [25] D. L. Shapiro, B. H. Sheppard, and L. Cheraskin, "Business on a handshake," *Negotiation Journal*, vol. 8, no. 4, pp. 365–377, 1992.
- [26] M. Fishbein and I. Ajzen, *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley, 1975.
- [27] D. H. McKnight and N. L. Chervany, "What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology," *International Journal of Electronic Commerce*, vol. 6, no. 2, pp. 35–59, 2001.
- [28] J. F. Hair, B. J. Babin, R. E. Anderson, and W. C. Black, *Multivariate Data Analysis*, 8th ed. Cengage Learning., 2018.

- [29] M. A. Fuller, M. A. Serva, and J. “Skip” Benamati, “Seeing is believing: The transitory influence of reputation information on e-commerce trust and decision making,” *Decision Sciences*, vol. 38, no. 4, pp. 675–699, 2007.
- [30] J. M. Becker, K. Klein, and M. Wetzels, “Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models,” *Long Range Planning*, vol. 45, no. 5-6, pp. 359–394, 2012.
- [31] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd ed. Thousand Oaks, CA: Sage, 2017.
- [32] R. P. Bagozzi and Y. Yi, “On the evaluation of structural equation models,” *Journal of the Academy of Marketing Science*, vol. 16, no. 1, pp. 74–94, 1988.
- [33] A. H. Gold, A. Malhotra, and A. H. Segars, “Knowledge management: An organizational capabilities perspective,” *Journal of Management Information Systems*, vol. 18, no. 1, pp. 185–214, 2001.
- [34] C. M. Ringle, M. Sarstedt, and D. W. Straub, “Editor’s comments: A critical look at the use of PLS-SEM in ‘MIS Quarterly,’” *MIS Quarterly*, vol. 36, no. 1, pp. iii–xiv, 2012.
- [35] P. Andreev, T. Heart, H. Maoz, and N. Pliskin, “Validating formative partial least squares (PLS) models: Methodological review and empirical illustration,” in *proceedings of the 2009 international conference on information systems*, 2009, pp. 193.
- [36] A. Diamantopoulos, P. Riefler, and K. P. Roth, “Advancing formative measurement models,” *Journal of Business Research*, vol. 61, no. 12, pp. 1203–1218, 2008.
- [37] J. Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. New York: Routledge, 1988.

