



## The Influence of Attitude (ATTD), Subjective Norm (SN), Perceived Behavioral Control (PBC), and Self-Efficacy (SE) on Purchase Intentions (INT) and Behavior (BHV) Using E-Commerce

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<http://dx.doi.org/10.18415/ijmmu.v8i12.3187>

### **Abstract**

This research aims to determine the influence of ATTD, SN, PBC, and SE on INT. This research also aims to determine the effect of INT on BHV. This study model-based on the Theory of Planned Behavior (TPB) with the addition of SE as an independent variable indicated influencing INT and BHV. The population of this study is people who will make purchases using e-commerce, who live in 10 districts/cities in West Nusa Tenggara Province. This research recruits one hundred respondents using the purposive sampling technique. Due to the limited number of samples, this study considered analysis using SEM Analysis with the help of the Smart-PLS Program. The results showed a positive and significant influence of ATTD, PBC, and SE on INT. It also showed a positive and significant influence of INT towards BHV in the Province of West Nusa Tenggara. However, the SN variable does not have a significant effect on the INT. This study contributes to the TPB in the context of purchasing behavior using e-commerce and the managerial issues of online marketing.

**Keywords:** *Attitude, Subjective Norm; Perceived Behavior Control; Self-Efficacy; Theory of Planned Behaviour (TPB); E-commerce*

### **Introduction**

The Theory of Planned Behavior (TPB) is a theory determined by INT. INT is a direct antecedent of BHV (actual behavior) which means that purchase INT is an essential predictor of buying BHV (Ajzen & Fishbein, 2005). INT is a variable determined by the combination of ATTD, SN, and PBC, compiled in a TPB model (Ajzen & Fishbein, 2005).

Research by Crespo and Del Bosque (2008) examines the factors that influence the use of e-commerce using the TPB model. This study analyzes the factors that determine consumer INTs so that they decide to make online transactions. Furthermore, Crespo and Del Bosque (2008) research stated that ATTD is the main factor determining an individual's INT to do online shopping. SN has a significant effect on the decision to shop online. However, PBC does not have a significant effect on online shopping.

Meanwhile, Rochmawati's (2012) research found that ATTD does not affect the INT to use a credit card. Fathia's (2012) study found that ATTD affects individual INTs to use credit cards using a combination model of Technology Acceptance Model (TAM) and TPB. Likewise, Sari and Dirgahayu's

(2018) study in the Special Region of Yogyakarta found that ATTD does no effect on INT. However, their research in East Kalimantan Province found that ATTD influences INT.

Contrary to Crespo and Del Bosque (2008), research by Rofiq et al. (2011), which also uses the TPB model to predict individual INT in Indonesia, found that ATTD and SN has a significant effect on INT. Meanwhile, Saswiana et al.'s (2020) research stated that e-commerce significantly affects consumer BHV. In line with Sari and Dirgahayu's research (2018) on the BHV of using e-commerce in two regions in Indonesia, the Special Region of Yogyakarta, and East Kalimantan Province, shows a significant relationship between PBC and INT, and a significant relationship between INT and BHV.

On the other hand, George's (2004) research shows that PBC affects internet purchasing without using the human INT variable. The more robust PBC will increase motivation, thus directly determining BHV without the INT variable (Ajzen, 2005). George's (2004) research also concluded that PBC was variable significantly influenced by SE. SE is a theory put forward by Bandura (1977), defined as an individual's perceived ability to perform the desired BHV. However, several studies such as Rhodes & Courneya (2003) and Yap & Lee (2013) found that PBC and SE are two different constructs. PBC captures an individual's perception of the ability to perform a BHV, influenced by the environment around the individual. On the other hand, SE captures the individual's perceived ability to perform the desired BHV (Parkinson et al., 2017). Furthermore, Parkinson et al. (2017) found that SE is a better predictor of BHV than PBC, especially repetitive behavior.

According to previous research presented above, there are inconsistencies in the relationship of ATTD, SN, and PBC to INT and BHV. Furthermore, as TPB was a theory that does not design as a model of behavior change but a model that explains people's INTs and BHV (Ajzen, 1991), identifying variables that can be modified is necessary to change consumer BHV. One of these variables is SE (Dennis, 1999). However, there are very few studies in the context of e-commerce that modify the original TPB model from Ajzen's (1991) theory, which is the addition of a SE construct (Bandura, 1997) as an independent variable in influencing INT and BHV (Ajzen & Fishbein, 2005). In that matter, the authors want to investigate further the effect of ATTD, SN, PBC, and SE on e-commerce purchase INT and BHV.

Resident in West Nusa Tenggara Province has only 29.6% of internet users (Wahyudiono, 2016), lower than the percentage of internet users at the national level, 68, 2% (APJII, 2018). Only 5,1% of internet users in West Nusa Tenggara Province use the internet to buy or sell goods or services, which means the percentage of online buyers that use e-commerce in West Nusa Tenggara Province is still exceptionally low. Based on the data and the TPB model, the author will research the variables that encourage the increasing e-commerce purchasing behavior in West Nusa Tenggara Province.

## **Literature Review**

ATTD, SN, and PBC are factors that build the TPB. This theory is the first technology adoption that appeared (Ajzen in Pavlou and Choi, 2002) involves e-commerce technology because its elements can fully explain the relationship between variables ATTD, SN, and PBC in certain conditions or situations.

### **1. Attitude (ATTD)**

Fishbein and Ajzen (2005) define ATTD as the amount of people's affection (feeling), whether accepting or rejecting an object or behavior. ATTD not only as a person's emotional feeling but also as an evaluation and tendency to act both favorable and unfavorable, and long-lastingly, towards an object or idea (Kotler, 2003). The source of an ATTD (ATTD origin) is the initial factor influencing how ATTDs are first formed (Baron et al., 2003). ATTDs formed based on direct experience have a more decisive influence on BHV than ATTDs formed based on indirect experience. The next aspect is ATTD strength-the more robust the ATTD, the stronger the impact on BHV. The last aspect of ATTD is ATTD specificity-the individual's response to a particular object in a particular situation (Baron et al., 2003). Based on the above description, ATTD consists of principal components: beliefs, feelings, evaluations,

and individual tendencies to respond, involving mental and thought, formed by ATTD origin, influenced by ATTD strength, and ATTD specificity.

## **2. Subjective Norm (SN)**

SN is social pressures an individual feels to take or not take action (Ajzen, 1991). SN is variable based on normative belief, related to hopes and desires of the referents considered essential to an individual, to perform the behavior or not. SN is also variable based on motivation to comply, which is the motivation of individuals to fulfill the expectations from others (Fishbein and Azjen, 2005).

Al-Lozi and Papazafeiropoulou (2012) state that SN is an individual's perspective on a condition or situation influenced by the individual's social environment. This point is view formed by the perception of the ATTDs and BHV of significant others in the group (what others really do), also called descriptive norm, or to what someone should do according to the thoughts or opinions of others or also called social norm (Ham et al., 2015). A conclusion emerges from the description above that SN are formed from components of beliefs about other people's expectations, motivation to meet these expectations, and a person's point of view on what his group does or according to the opinions of others who are important to him.

## **3. Perceived Behavioral Control (PBC)**

PBC is the individual's assumption of his ability to show behavior in a particular condition (Hsu et al., 2006), whether or not it is easy and whether or not the individual can perform a behavior (Ajzen, 1991). Furthermore, Ajzen (2005) defines PBC as a person's perception of his ability to display certain behaviors. PBC illustrates how far individuals control themselves to display or not to display certain behaviors. Based on the above description, PBC is a construct based on three components: individual abilities, self-assessment, and self-control of these abilities.

## **4. Self-Efficacy (SE)**

SE is the belief that a person holds about his abilities and the results from his hard work affect his behavior (Bandura, 1997). In the context of online shopping, SE is consumers' judgments about their ability to shop mobile (Compeau and Higgins, 1995) effectively. Meanwhile, Ghufron and Risnawita (2011) explain that SE refers to the belief or individual ability to move the motivation, cognitive abilities, and actions needed to meet the demands of the situation. The authors concluded that SE is an individual's ability to assess himself based on his knowledge, expertise, and motivation in doing something.

## **5. Purchase Intention (INT)**

Rossiter and Percy (1998) suggest that purchase INT is a consumer's self-instruction to purchase a product, plan, take relevant actions such as proposing (initiator), recommending (influencer), choosing, and finally deciding to make a purchase. So consumers make considerations in determining their instructions. Assael (2001) states that purchase INT is a consumer's tendency to buy a brand or take action related to a purchase measured by the level of probability that consumers make a purchase. So, the INT to buy is a consumer's self-instruction and tendency to buy based on several considerations and probability.

## **6. Purchase Behavior (BHV)**

BHV is an interaction between individuals responding to stimuli that come from their environment to adapt and survive. Notoatmodjo (2003) revealed that there are three main elements in BHV, namely:

1. The existence of affective (feelings or judgments on various things).
2. Cognitive (knowledge beliefs or opinions about an object).
3. Psychomotor (intentions and actions related to an object).

## 7. E-commerce

The buying behavior discussed in this study is buying behavior using e-commerce. E-commerce is a transaction process carried out by buyers and sellers in buying and selling various products electronically from companies to other companies using computers as intermediaries for business transactions (Laudon, 1998). Wulandari et al (2017) stated that e-Commerce makes buyers and sellers' activities no longer limited by geographical area and it can increase the efficiency and speed of conducting business.

Rofiq et al. (2011), in their research, stated that ATTD is an INT predictor to purchase online using e-commerce in Indonesia. Their result is in line with Purwianti & Tio's (2017) research which shows an influence of ATTD on behavioral INT. So that a hypothesis is as follows:

H1: ATTD affects Purchase INT Using E-commerce in the West Nusa Tenggara Province.

As part of the TPB, SN tend to have inconsistent relationships with INT (Krueger et al., 2000). According to Crespo and Del Bosque's (2008) research, the SN variable significantly affects the INT to do online shopping. Rofiq et al. (2011) research also found that SNs significantly influence INT to purchase online using e-commerce in Indonesia. So that a hypothesis is as follows:

H2: SN affects Purchase INT Using E-commerce in the West Nusa Tenggara Province.

Previous research has stated that PBC can directly predict BHV and INTs. Feeling control of something increases a person's willingness to expend more effort to achieve success in something (Armitage and Conner, 2001). George's (2004) research shows that PBC affects INT purchasing without using the human INT variable. However, in Ajzen's (2002) model, PBC significantly influences BHV through INT as a mediator but does not directly affect BHV. From this explanation, the hypothesis in this study is as follows:

H3: PBC affects Purchase INT Using E-commerce in the West Nusa Tenggara Province.

Research conducted by Tan and Teo (2000) found that SE has a significant and positive influence on the INT to use information technology. The results of Pappas et al. (2012) showed that effort expectancy, performance expectancy, and SE increase customer satisfaction in online shopping, which also increases consumer repurchase intentions. From the two studies, the following hypothesis is as follows:

H4: SE affects Purchase INT Using E-commerce in the West Nusa Tenggara Province.

From the research result by Sari and Dirgahayu (2018), the INT positively affects the BHV of using e-commerce in the Special Region of Yogyakarta and East Kalimantan. That result is in line with Shomad and Purnomosidhi's (2016) research showing that the INT construct has a positive effect on the BHV of using e-commerce services. So that a hypothesis for this research is as follows:

H5: Purchase INT affects Purchase BHV Using E-commerce in West Nusa Tenggara Province.

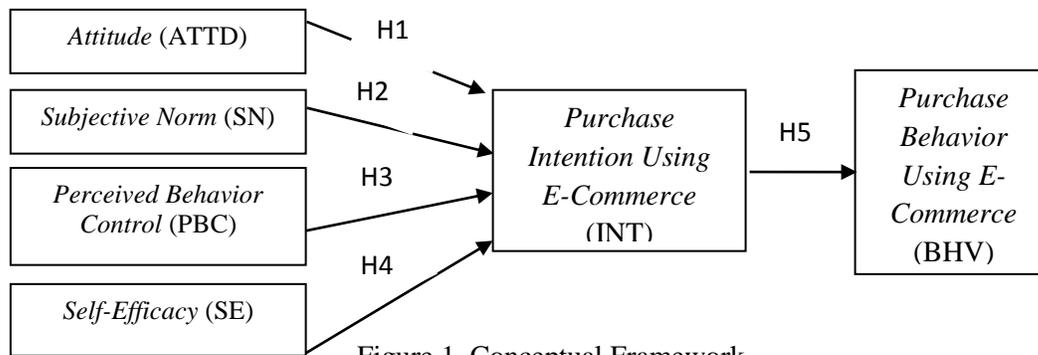


Figure 1. Conceptual Framework

### Research Methodology

This type of research uses a causal associative quantitative approach cause it aims to see the relationship between variables that affect the independent and the dependent variable, INT and BHV. The number of samples in this study was one hundred people, with the respondent criteria being male or female with a minimum education level of D3/S1 in education level (undergraduate). Respondent determination uses ICT Indicators Infographic 2016 from the Ministry of Communication and Information Technology Republic of Indonesia (Kominfo, 2017). The population used in this study are respondents who will make purchases using e-commerce who live in 10 districts/cities: Mataram City, West Lombok Regency, Central Lombok Regency, East Lombok Regency, North Lombok Regency, West Sumbawa Regency, Sumbawa Regency, Dompu Regency, Bima Regency, and Bima City. The number of respondents in each district/city use percentage of the male and female population aged 7-24 years by education status in districts/cities of West Nusa Tenggara Province (BPS, 2018). Below is the result of respondent's characteristics:

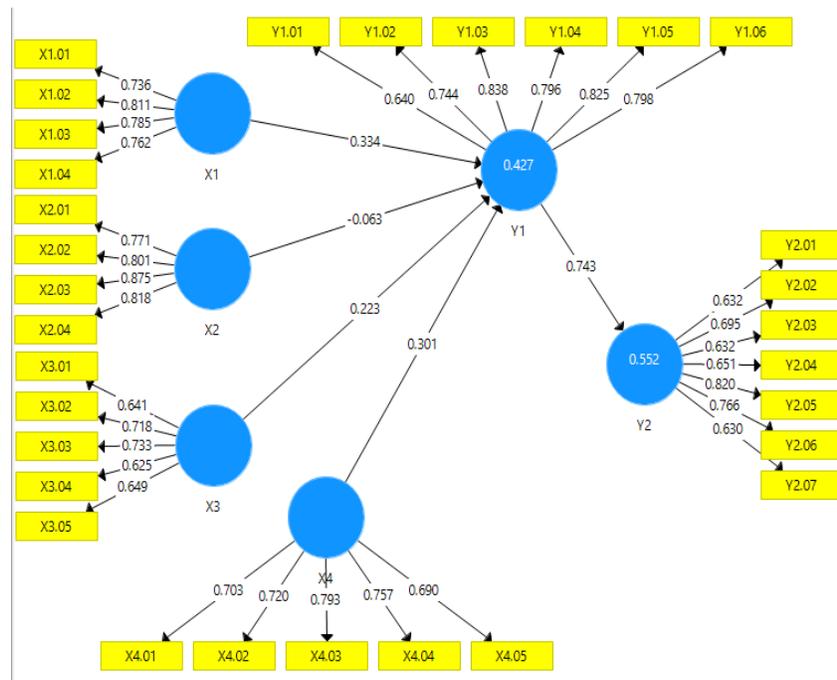
**Table 1. Characteristics of Respondents**

Characteristic	Respondent Profile	Amount	Percentage (%)
Sex	Male	15	15
	Female	85	85
Age (Years)	21-25	26	26
	>25	74	74
Occupation	Teachers	51	51
	Private Employees	12	12
	Entrepreneurs	3	3
	Government Employees	17	17
	Health Workers	8	8
	Undergraduate Students	6	6
Education	Others	3	3
	D 3	16	16
	S 1	78	78
	S 2	6	6

Source: Primary Data Processed, 2021

To examine the effect of the ATTD, SN, PBC, and SE variables on behavior by involving the mediating variable INT with data analysis techniques using the partial least square-structural equation model (PLS-SEM), as shown in the following figure:

**Figure 2. PLS Algorithm Results**



Source: Primary Data Processed with Smart PLS 3.0, 2021

Next, the data were analyzed using the PLS approach by evaluating the measurement model/outer model and structural model/inner model. Evaluation of the measurement model or outer model is carried out by evaluating the value of loading factor, composite reliability, and Cronbach's alpha, as shown in the following table:

**Table 2. Summary of Outer Model Test Result**

No	Variable/Indicator	Outer Loading	Cronbach's Alpha	Composite Reliability
1	Attitude (ATTD)		0,778	0,857
	I feel that currently online purchases using e-commerce (Tokopedia, Shopee, Go-Food, etc.) are more practical than offline (at malls, stores, etc.) (ATTD.01)	0,736		
	I am satisfied with making purchases online using e-commerce (ATTD.02)	0,811		
	When I have enough information about the online shopping system in particular e-commerce, I will start shopping at that e-commerce store (ATTD.03)	0,785		
	When I already know how easy it is to shop online in certain e-commerce, I will shop at that e-commerce store more often (ATTD.04)	0,762		
2	Subjective Norm (SN)		0,836	0,890
	There is a change in consumer/society behavior today to start shopping online, so I also take advantage of this moment to understand the concept of online shopping using e-commerce (SN.01)	0,771		
	When my close friends tell me about the ease of shopping online, my confidence arises to try the same thing (SN.02)	0,801		
	When my close friends encourage me to feel the ease of shopping online, I tend to fulfill the urge/invitation (SN.03)	0,875		
	When a lot of my close friends who are tech-savvy use particular e-commerce to shop online, I tend to follow him (SN.04)	0,818		

3	Perceived Behavioral Control (PBC)		0,879	0,861
	If I want to shop online, I see the speed response of the e-commerce site seller in serving my requests/questions (PBC.01)	0,641		
	If I do not have enough information about the seller on the e-commerce site, then my desire to shop online will decrease (PBC.02)	0,718		
	I am sure to shop online after seeing the testimonials of other people who have shopped on the e-commerce site (X3.03)	0,733		
	I am sure to shop online because I see people near me also shop online (PBC.04)	0,625		
	I am sure to shop online because my partner approves of my online shopping action (PBC.05)	0,649		
4	Self-Efficacy (SE)		0,758	0,860
	If I want to shop online, I believe that every time I want something, I will be able to choose well through online shopping (SE.01)	0,703		
	If I ever fail to shop online, I choose not to give up and motivate myself to shop online again (SE.02)	0,720		
	When I see a close friend of mine who has the same educational degree as me succeeding in online shopping after failing before, I am sure that I could do the same thing too (SE.03)	0,793		
	When people who are close to me persuade me to shop online because they think I am able to shop online better than other people, I shop online better than they expected (SE.04)	0,757		
	When I start shopping online at a certain e-commerce site, I have control over my emotions, I do not feel anxious about getting fail to shop online the first time (SE.05)	0,690		
5	Purchase Intention (INT)		0,880	0,912
	I could plan well what I need and what I want before shopping online (INT.01)	0,640		
	I choose online shopping because there are more types of products sold than offline shopping (INT.02)	0,744		
	I choose online shopping because there are more products sold than offline shopping (INT.03)	0,838		
	I choose online shopping because the brands offered are more diverse than in offline stores (INT.04)	0,796		
	I choose online shopping because I see more sellers or e-commerce sites available than offline shopping (INT.05)	0,825		
	I choose online shopping because I can flexibly manage my shopping time (INT.06)	0,798		
6	Purchase Behavior Using E-commerce (BHV)		0,779	0,872
	If I shop online, then I will comply with all the provisions stipulated in the e-commerce site (BHV.01)	0,632		
	If I shop online, I realize that I must be able to control myself (BHV.02)	0,695		
	If I am free to choose to shop online, then I tend to shop online by my level of need (BHV.03)	0,632		
	I am interested in shopping online because there are often profitable programs (BHV.04)	0,651		
	I am interested in shopping online because online shopping offers many alternative payment methods (BHV.05)	0,820		
	I am trying to try shopping through online e-commerce because I already know the advantages of shopping online (BHV.06)	0,766		
	I easily adapt to changes that occur in online shopping (BHV.07)	0,630		

Source: Primary Data Processed, 2021

Hair et al. (2010) stated that data is to be valid and analyzed further if the minimum value of each loading factor is 0.5 or normally 0.7. As seen in Table 2, all of the reflective indicators resulted in a loading factor value of > 0.60. Meanwhile, the parameters of composite reliability and Cronbach's Alpha

measure the reliability. Composite reliability reaches a satisfactory value above 0.7, and the recommended Cronbach's Alpha value is around 0.7 (Hair et al., 2014). As seen in the table above, all constructs have composite reliability and Cronbach's Alpha above 0.7.

The Outer Model evaluation also uses discriminant validity by looking at the average variance extracted (AVE), which recommended value is above 0.5 (Hair et al., 2014), and the AVE square root value is greater than the correlation value between constructs (Fornel and Larcker, 1981). AVE Root Square Correlations in this study are in the following table:

**Table 3. Average Variance Extracted (AVE) Root Square Correlations**

Variable	ATTD	SN	PBC	SE	INT	BHV
ATTD	0,774					
SN	0,688	0,817				
PBC	0,451	0,438	0,675			
SE	0,540	0,596	0,439	0,734		
INT	0,554	0,444	0,478	0,542	0,776	
BHV	0,601	0,471	0,631	0,480	0,743	0,693

Source: Primary Data Processed, 2021

INT has an R Square of 0.427, which means that the variables ATTD, SN, PBC, SE, can explain the variation of INT of 42.7% where the remaining 57.3% is explained by other factors not examined. According to Chin (1998), the value of R Square is 0.67; 0.33; 0.19 indicates a strong model, moderate, and weak. So, the result concluded that the R Square INT model is a moderate structural model.

The variable of BHV has an R Square of 0.552, which means INT can explain the variance of BHV of 55.2%, where other factors explain the remaining 44.8%. According to Hair et al. (2011), the value of R Square is 0.75; 0.50; 0.25 indicates a strong model, moderate, and weak. So, the result concluded that the R Square BHV model is a moderate structural model.

To assess the significance of the predictive model in testing the structural model (structural model/inner model) can be seen from the t-statistic value between the independent variables to the dependent variable. According to Hair et al. (2011), a significance value of 5% level must meet the t-value of 1.96.

## Results and Discussion

The results of the inner model test using the t-statistic and P-value can answer the hypotheses of the research model, as shown in the following table:

**Table 4. Hypotheses Test Results**

Hypothesis	Estimation	t-Statistic	P-Value	Description	Conclusion
H1 : (ATTD -> INT)	0,334	3,318	0,001	Positive and Significant	Hypothesis Supported
H2 : (SN -> INT)	-0,063	0,560	0,575	Positive, but Insignificant	Hypothesis Unsupported
H3 : (PBC -> INT)	0,223	2,346	0,019	Positive and Significant	Hypothesis Supported
H4 : (SE -> INT)	0,301	2,838	0,005	Positive and Significant	Hypothesis Supported
H5 : (INT -> BHV)	0,743	14,117	0,000	Positive and Significant	Hypothesis Supported

Source: Primary Data Processed with SEM-PLS, 2021

### **a. ATTD Influences Purchasing INT Using E-commerce in West Nusa Tenggara Province.**

The research result on the ATTD variable is positive and significant to INT, where the estimated value is 0.334, and the t-statistic value is 3.318, greater than 1.96 (at the 5% level). The attitude variable in total has a positive and significant effect on the INT variable with a p-Value of 0.001, smaller than the 0.05 standard. The value means the stronger the ATTD affects the increase of INT, so hypothesis H1 is accepted. In this regard, the more positive a person's assessment of a product/brand, the higher the likelihood that someone will buy or use it.

The ATTD variable uses affective (consumer feelings), conative (tendency), cognitive (consumer knowledge) indicators to analyze the effect on the intention variable. These three indicators influence consumer purchase INTs using e-commerce, although affective and conative ATTDs stand out among those three. Affective ATTD means respondents feel that shopping online was more practical than direct shopping and impacts the satisfaction of purchasing online using e-commerce. While the conative ATTD is shown by the tendency when consumers have sufficient information about the online shopping system, then consumers will start shopping at e-commerce stores. The last and least one, cognitive ATTD, is related to knowledge in perceiving a use of e-commerce. When consumers already know how easy it is to shop online at particular e-commerce, they will more often shop at the e-commerce store. So, consumers consider themselves in using particular e-commerce through consideration in their knowledge of the e-commerce.

The results of this study support Rochmawati's (2012) research which proves that the ATTD variable affects the purchase INT using e-commerce.

### **b. SN Have No Significant Effects on INT to Use E-Commerce in NTB Province.**

The study result of the SN variable is positive but not significant on INT, where the estimated value is -0.063, and the t-statistic value is 0.560, smaller than 1.96 (at the 5% level). SN variable in total has no significant positive effect on the INT variable because the p-Value is 0.575, smaller than 0.05. The value means that the stronger SN does not significantly affects intention, so hypothesis H2 is not accepted.

This study uses SNs indicators consisting of four indicators, namely recognition of social pressure, belief norms, motivation, point of view, explained one by one as follows:

a. Indicator of recognition of social pressure: social pressure felt by consumers, which can lead to self-confidence and motivation to follow the behavior of others, does not affect the INT to shop using e-commerce. The social pressure felt by consumers in West Nusa Tenggara Province is influenced by their age maturity, which also means having better emotional maturity and assessing the situation without the help of others critically. In addition to maturity of age, an elevated level of education (minimum D3) results in better intelligence development. The maturity of age and intelligence causes them to be independent and have high self-confidence. So, the perceived social pressure from other people or groups does not affect their INT to shop using e-commerce. They only consider other people's opinions or input, but they are more confident in their beliefs in shopping.

b. Norm belief indicator: the stronger consumer confidence in understanding or disagreement with a person or group does not affect the INT to shop using e-commerce. Consumer confidence is a characteristic of the millennial generation. The millennial generation is noticeably confident, dares to express opinions, and does not hesitate to debate in public (Kemenppa and BPS, 2018). When they agree with those who tell about the ease of shopping online, they will firmly believe in it but still dare to express their opinion on the understanding or disagreement that occurs. So, even though they believe

in their group's opinion, they can still make decisions regarding their shopping INTs using e-commerce, regardless of their opinion.

- c. Indicators of motivation: consumers are less motivated to meet the expectations of others, but this does not affect the intention to shop using e-commerce. Consumers in West Nusa Tenggara Province are less motivated to meet the expectations of others. The motivation here is related to the motivation to shop using e-commerce. The respondents in this study are 85% women. Their motivation in shopping using e-commerce is not to meet the expectations of others. However, their motivation is impulsive buying, where according to Rook (1987), impulsive buying happens when consumers experience sudden, often strong, and persistent urges to immediately buy something constantly. When the people closest to them encourage them to feel the ease of shopping online, they tend to fulfill the urge/invitation. However, because the urge to shop is greater than the thought about the consequences if it does not fulfill the invitation or expectations of others, it causes a lack of motivation to meet the expectations of others, so it does not affect the INT to shop using e-commerce.
- d. Point of view indicator: consumers do not have a positive perspective on the ATTDs and BHVs of significant others in the group, but this does not affect the INT to shop using e-commerce. Consumers in the West Nusa Tenggara Province do not have a positive perspective on the ATTDs and BHVs of significant other people in their group due to the high level of education. Rofiq et al. (2011) stated that based on their level of education, Indonesian people understand well the advantages and disadvantages of e-commerce applications. Related to this research, consumers in West Nusa Tenggara Province with higher education do not feel the need to see the BHV of significant people in their group because they have the ability to understand the advantages and disadvantages of e-commerce applications. In addition, the workplace also influences individual awareness of using internet technology (Rofiq et al., 2011). Consumers in West Nusa Tenggara Province are already in a work environment that is accustomed and proficient in using technology, especially e-commerce technology. They no longer feel the need to follow significant others, and it does not affect their INT to shop using e-commerce.

Sari and Dirgahayu's (2018) research uses the Theory Planned Behavior model and Hofstede's Cultural Dimensions to develop an adoption model for e-commerce, where Masculinity, Individualism, and Power Distance are part of the Social Influence that affects SN. According to Hofstede (2021), quoted from <https://www.hofstede-insights.com/country-comparison/indonesia/>, Indonesia has a low individualism cultural dimension value of 14, which means that Indonesian society is a collectivist society, where the society or group expect individuals to adapt themselves with the ideals of the society or group to which they usually belong. In the results of this study, the influence in a group or social environment of the West Nusa Tenggara Province's community is not significant. Thus a person/consumer responds directly to the desire to use e-commerce and becomes an individualistic person in shopping culture using e-commerce.

Still, according to Hofstede (2021), the high score of Masculinity in Indonesia, which is 46, indicates that Indonesian society is driven by competition, achievement, and success, with success determined by the winner/best in their field – a value system that starts in school and continues throughout the life of the organization. However, in this study, the respondents were not compelled to compete. The influence of successful others does not pressure them, which could affect their INT to shop using e-commerce.

Lastly, Indonesia's Power Distance is high, 78, which means dependence on the hierarchy, unequal rights between power holders and those who do not hold power, difficulty accessing superiors, directive leaders, and management control and delegation on each job (Hofstede, 2021). In this study, respondents in West Nusa Tenggara Province did not depend on the people above them or their leaders. They did not get pressure from their superiors or leaders, so they independently decided to shop using e-commerce.

The three cultural dimension variables directly affect SNs, so to see the variables that affect SNs on INTs need further research.

**c. PBC Influences INT to Use E-commerce in NTB Province.**

The research results on the PBC variable have a positive and significant value on INT. The estimated value is 0.223, and the resulting t-statistic value is greater than 1.96 (at the 5% level), which is 2.346. In total, the PBC variable has a significant positive effect on the INT variable with a p-Value value of 0.019, smaller than the standard value, 0.05. The value means that the stronger the PBC, the stronger the INT so that the H3 hypothesis is accepted. Regarding this result, PBC which refers to a person's perception of his ability to display certain behaviors (Ajzen, 2005), is a positive perception, so that the INTs formed are positive. The research results align with Shook and Bratianu's (2010) opinion. The more positive the resulting outcome, the better the person's perception, and the higher the person's INT to carry out an activity.

This research supported the theory put forward by Ajzen (1991), which says that PBC affects INTs. Behavioral control is the amount of perceived supporting and inhibiting factors from performing a behavior. If they feel many supporting factors, they will perceive themselves as easy to perform the behavior. On the contrary, the fewer the supporting factors and the many inhibiting factors, the individuals will perceive themselves as difficult to perform the behavior.

**d. SE Influences the INT to use E-Commerce in the Province of NTB.**

The study results of the SE variable have a positive and significant value on INT, where the estimated value is 0.301, and the resulting t-statistic value is greater than 1.96 (at the 5% level), which is 2.838. In total, the SE variable significantly affects the INT variable with a p-Value of 0.005, smaller than 0.05. The value means that the stronger the SE, the stronger the INT so that the H4 hypothesis is accepted.

SE is a variable defined as high confidence in the ability to shop using e-commerce so that the INT to shop using e-commerce will be higher. This study uses four indicators of the SE variable, namely Mastery experiences, role modeling, social persuasion (Verbal/social persuasion), physiological and psychological conditions (physiological and psychological cues) in influencing the use of e-commerce by consumers in the province of West Nusa Tenggara.

This study is not looking at the effect of SE on INTs through PBC but to compare SE and PBC as better predictors of INT. Refers to Parkinson et al.'s (2017) research, stated that SE is a better predictor of BHV than PBC, especially for repetitive behavior.

This study supports the research conducted by Tan and Teo (2000), who found that SE has a significant and positive effect on the INT to use information technology.

**e. INT to use E-Commerce Influences Purchase BHV Using E-commerce in NTB Province.**

The research results on the INT variable have a positive and significant value on BHV. The estimated value is 0.743, and the resulting t-statistic value is greater than 1.96 (at the 5% level), 14.117. In total, the INT variable has a significant positive effect on BHV with a p-Value of  $0.000 < 0.05$ . The value means that the stronger the INT, the stronger the BHV, so hypothesis H5 is accepted. In line with Ajzen's (1991) opinion, which states that INT towards a BHV can be a strong indicator of the realization of that BHV, the high value of t-statistics in this study also shows how strong INT is as a predictor of shopping BHV using e-commerce.

This study uses planning and selection process indicators, where respondents plan well what they need and want before shopping online. They choose online shopping because there is more variation in product type, product form, brand, availability of more sellers or e-commerce sites than offline shopping. Also, respondents choose online shopping because they can flexibly manage shopping times.

This result is in line with Sari and Dirgahayu's (2018) research, where INT positively affects the BHV of using e-commerce both in the Special Region of Yogyakarta and East Kalimantan.

## ***Conclusions and Suggestions***

### **a. Conclusions**

In the study results, the variables of ATTD, SN, PBC, and SE were not fully contributing to the INT, and BHV was not fully contributed by the INT. Thus the rest contributions are influenced by other variables not examined. Nevertheless, one variable does not significantly affect the INT, namely the SN. The SN has little or no influence on the INT to shop using e-commerce.

The results of this study are empirical evidence for BHV in West Nusa Tenggara Province using the TPB, and its development is by adding a variable outside the TPB, namely SE. This study found that ATTD, PBC, and SE affect INT. Likewise, INT has a positive and significant effect on BHV. However, the stronger the SN, little or no influence on the INT.

This study fills the research gaps found in the results of previous studies (Crespo and Del Bosque (2008), Rofiq et al. (2011), Rochmawati (2012), Sari and Dirgahayu (2018)), including the inconsistency of the results of the ATTD, SN, and PBC study to INTs and BHV. The TPB model was not a model of behavior change but a model that explains people's INTs and BHV (Ajzen, 1991). This study still found inconsistencies in the SNs variable in influencing INTs. So, to change consumer BHV, it is necessary further to identify a broader range of SN variables. This study also fills the gap where there are very few studies in the context of e-commerce that modify the TPB model with the addition of a SE construct. Looking at previous research by Parkinson et al. (2017), SE is a better predictor of BHV than PBC, especially for repetitive behavior. However, SE is slightly better than PBC as a predictor of INT and BHV in this study.

The results of this study confirm the influence of environment context related to community characteristics such as demographic factors, social structure, and culture on purchasing decisions using e-commerce. SN and SE in this study have different effects on INTs and BHV at different research locations.

The entrepreneur can use the study results, primarily entrepreneurs in the West Nusa Tenggara Province. They can see what factors they need to pay attention to or improve online marketing using existing e-commerce sites or applications, thereby encouraging the growth of the number of entrepreneurs in the West Nusa Tenggara Province that utilizes e-commerce. Consumers in the West Nusa Tenggara Province have a positive ATTD towards shopping using e-commerce. They tend to always use particular e-commerce as a medium in meeting their online shopping needs. For this reason, entrepreneurs should have data about the most widely used e-commerce in West Nusa Tenggara Province and use the e-commerce site or application in marketing their business. Entrepreneurs must also make their shopping sites easy to use, thus creating an INT to shop using e-commerce. One PBC indicator is the consumer's perception of the ease or difficulty faced when shopping online on e-commerce media. The use of social media such as Facebook, Instagram, or other social media to carry out promotions can increase purchase INT because consumers in West Nusa Tenggara Province have high SE in using e-commerce. Entrepreneurs need to establish consumer confidence in the West Nusa Tenggara Province to shop using

e-commerce by creating a brand image and finding or creating an e-commerce site that is easy and safe to use.

## **b. Suggestions**

The rest contributions are influenced by other variables not examined. So it is necessary to add indicators in operational variables or add other variables in further research, such as perceived risk and perceived benefit as in Rochmawati's (2012) research, or perceived usefulness and perceived ease of use such as Lucyanda's (2010) research.

Reviewing the indicators of the SN that has a low level of significance needs future research, where the results of research on this variable have no significant effect. To further explain the differences in the effect of SNs on e-commerce shopping in several regions, it is also necessary to add Hofstede's Cultural Dimension variables in further research, namely Masculinity, Individualism, and Power Distance.

The results of this study have weaknesses, namely not collecting other demographic data such as religion, income, marital status. Knowing the data regarding the respondent's religion, income, and marital status can explain the individual and environmental factors that influence consumers' purchasing decisions, following the opinion expressed by Assael (2001) that individual and environmental factors influence consumer decision making. Consumer characteristics variables, namely demography, lifestyle, and personality, are individual factors. At the same time, cultural factors (society norms and values), sub-cultures (nationality, religion, race, geography), reference groups (friends, family), social class (income, type of work) are environmental factors.

Another weakness of this study is that there is no data on how long the respondents use the internet and the frequency of internet use for shopping. The duration and frequency of internet use are related to repetitive behavior in online shopping. So that it can better explain the results of the SE variable as a better predictor of INT than PBC, further research can consider other factors that may influence consumers in using e-commerce in online purchases.

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