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Perceived Value as a Mediating Variable in the Theory of Planned Behavior. Application to the Intention of Completing an Master of Business Administration

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ABSTRACT

The objective of this research is to evaluate the intention to carry out an Master of Business Administration (MBA) in the Ecuadorian context through the model proposed by Ajzen (1991); including the perceived value; as a mediating variable among the constructs (attitude, subjective norms and perceived behavioral control) and intention. The research was framed in a quantitative perspective, with a cross section. The estimation of the model was made, through the multivariate statistical technique of structural equations, in order to evaluate the relationships between constructs. The analyzed population were undergraduate students from all the Universities of Ecuador, of which a sample of 756 students was surveyed. It was evident that all the hypothetical relationships established in the proposed model are significant with respect to the intention to carry out an MBA. The perceived value for completing an MBA influences the intention to complete an MBA by 0.894. Likewise, the perceived value was evaluated as a mediating variable, concluding in accordance with what was proposed by Ato and Vallejo (2011), which meets the different processes for verification. Finally, the correlations between attitude, subjective norms and control perception were reported to be significant. In addition, the R2 of the dependent variables was determined, hence, the intention to carry out an MBA reported 79.9%; Similarly, the perceived value was determined, obtaining 65.5%.

Keywords: Theory of Planned Behavior, Perceived Value, Master of Business Administration Graduate Studies, Structural Equations
JEL Classifications: M14, M20, M30

1. INTRODUCTION

The purpose of the present investigation was to evaluate the factors that influence the intention to carry out an Master of Business Administration (MBA), in the Ecuadorian context; For this, the model proposed by Ajzen (1991) was used, based on socio-cognitive factors of the theory of planned behavior, incorporating the variable of perceived value as a mediating variable, among the constructs: attitude, subjective norms and perceived control; and intention. Considering that Al-Debei et al. (2013), refer to the perceived value as a variable that can directly affect the intention to perform a behavior, and the perceived value is conceptualized as the benefit of doing something based on the cost that this implies. Furthermore, Dodds and Monroe (1985) mentioned that the perceived value is an important factor in the purchase decision process, since consumers analyze what they give in exchange for what they get. Within this conceptualization, the perceived value plays the role of the relative weight among the three constructs of the Ajzen model for the definition of behavioral intention.

With this precedent, the importance of understanding the behavior of individuals and recognizing the factors that motivate them to undertake graduate studies in the MBA are based. This study has been carried out in Ecuador, which has the characteristic of being a country with an emerging economy.

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In the following sections of this article reference is made to the research purpose, revision of the theoretical framework on the theory of planned behavior, and relationship of variables; it continues with the description of the methodology and finally the presentation of the results with their respective conclusions and recommendations.

2. PURPOSE OF THE INVESTIGATION

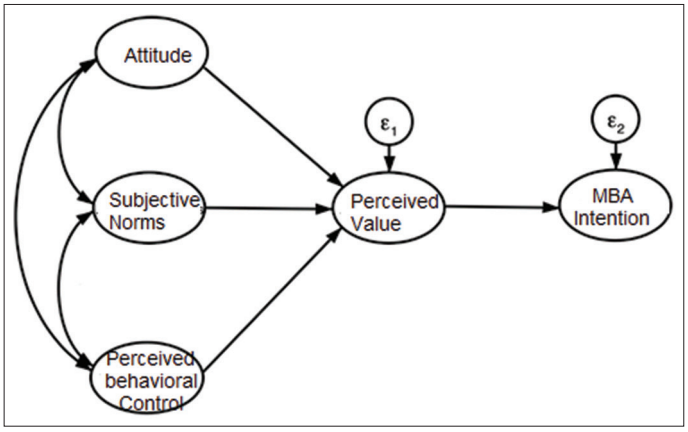
It is proposed to evaluate the factors that influence the intention to carry out an MBA through the Ajzen's (1991) modified model of the theory of planned behavior, considering the inclusion of the mediating variable the Perceived Value. The model is based on the theoretical contribution of Al-Debei et al. (2013), which refers to the perceived value as a variable that can directly affect the intention to perform a behavior. As an example, when people are more influenced by their close social circle, conceptualized with Subjective Norms, it leads to the perceived value increasing, due to the fact that individuals perceive greater benefits in relation to costs, therefore, this induces individuals to have a greater intention of pursuing an MBA.

The present investigation was carried out under the quantitative method, using the multivariate statistical technique of structural equations, in order to evaluate the hypothetical relationships between constructs. Finally, surveys were applied to 756 students in a specific period, that is, cross-sectional.

The model proposed for the present investigation is observed in Figure 1:

Note. Adapted from "The Theory of Planned Behavior," por Ajzen, I., 1991, Organizational Behavior and Human Decision Processes, 50(2), p. 182; "Why People Keep Coming Back to Facebook: Explaining and Predicting Continuance Participation from an Extended Theory of Planned Behavior Perspective," por Al-Debei et al., 2013, Decision Support Systems, 55(1), p. 45; Al-Hujran et al. (2015). The imperative of influencing citizen attitude toward e-government adoption and use. Computers in human Behavior, 53, 189-203.

Figure 1: Proposed model to determine the factors that influence the decision to carry out MBA Studies, with the inclusion of the variable perceived value as mediator



As can be seen in Figure 1, the present work identifies as independent variables: attitude, subjective norms, perception of control; as dependent variable: intention to complete an MBA. Finally, perceived value was considered as mediating variable.

3. THEORETICAL FRAMEWORK

In the present investigation, the Perceived Value is evaluated as a construct that captures the cognitive and emotional weightings that the individual makes of the attitude, norm and control, before defining his intention.

Given the complexity of understanding the factors that make individuals adopt certain behaviors, a series of studies and models have been developed that aim to explain them (Harris and Halpin, 2002; Islam and Jahan, 2014; Ng et al., 2011; Nyaribo et al., 2012).

However, the model that has been best adapted to various situations and contexts is the Theory of Planned Behavior model, whose constructs are attitudes, subjective norms and perceived behavioral control, as independent variables and become incentives to have the intention to perform a certain behavior as a dependent variable (Ajzen, 1991).

A person develops an intention to perform a certain behavior, until, at the right moment and when the opportunity arises, the intention becomes an action (Ajzen and Fishbein, 2005). Intentions involve motivational factors that influence behavior; they are indications of people's disposition, of the amount of effort they are willing to give, in order to carry out certain behavior (Ajzen, 1991). Attitude reflects a favorable or unfavorable general predisposition towards an object (Ajzen and Fishbein, 2000).

The subjective norm results from the perception of individuals about carrying out certain behavior based on the opinion that other people - family, friends, work colleagues - have about their behavior, and the importance that they attribute to it. Other authors such as Mazuki et al. (2013); Kusumawati, 2013; Ng et al., 2011; who have referred to social and family influence as a variable that determines the intention to carry out a behavior.

Ajzen (1991) referred to the perceived behavioral control as the ability of people to perform a certain behavior. He also pointed it out as the total set of factors that facilitate or impede certain activity.

On the other hand, incorporating the perceived value into the analysis can improve the explanation of the intention that individuals have for certain behaviors. Fornell et al. (1996) mentioned that the perceived value becomes the most favorable necessary condition to generate consumer behaviors. Also Hu et al. (2009) cited authors such as Anderson and Srinivasan (2003); Chen and Dubinsky (2003); Cronin et al. (2000); Pura (2005) who concluded on the research interest that the Perceived Value has gained as a variable that allows to predict the purchasing behavior, concluding in their research a direct and significant relationship between the perceived value and the intention.

The perceived value has been defined in many ways Al-Debei et al. (2013) refers to the perceived value as a variable that can directly affect the intention to perform a behavior and conceptualizes the perceived value as the benefit of doing something in function of the cost that this implies. Hu et al. (2009) cites various authors such as Zeithaml, 1988, Vandermerwe, 2003, Monroe, 1990, Woodruff, 1997, Cronin et al., 2000, Parasuraman and Grewal, 2000 who contribute with interpretations of the perceived value and its importance as a variable that influences the consumption decision referring to the perceived value as the benefit that buyers receive in compensation with the sacrifice or what they pay in exchange, reaching the conclusion of an incidence of 22% of the perceived value in behavioral intention and with a significant relationship between these variables. With this article we want to provide evidence on the TPB model applied to the intention of taking an MBA, considering the expansion of the model with the Perceived Value variable, as a mediating variable.

Hypothesis

As a general hypothesis, the following is proposed: The modified Azjen model explains better than the original model the intention to carry out an MBA, for undergraduate students in Ecuador.

Likewise, the specific ones are proposed:

- H_1: The attitude of MBA students influences perceived value
- H_2: The subjective norms of MBA students influence perceived value
- H_3: The perception of behavior control of MBA students influences perceived value
- H_4: The perceived value of MBA students influences their intention to complete an MBA.
- H_5: There is a correlation between attitude and subjective norms.
- H_6: There is a correlation between subjective norms and the perception of control
- H_7: There is a correlation between attitude and perception of control.
- H_8: Perceived value is a mediating variable between attitude and intention to complete an MBA.
- H_9: The perceived value is a mediating variable between the Subjective Norms and the intention of completing an MBA.
- H_{10}: The perceived value is a mediating variable between the perception of control and the intention to complete an MBA.

4. MATERIALS AND METHOD OF RESEARCH

The design of this research was established within the quantitative paradigm, with a cross-section, with a correlational approach to evaluate the relationships proposed in the research, the purpose of which is to examine the relationship between variables (Hernández et al., 2010).

The population is made up of all Ecuadorian public and private universities undergraduate students. This study included a sample design stratified under two criteria; (a) public and private universities of Ecuador (b) A sample of the five largest universities in the Ecuadorian context was used for convenience.

Kline (2005) considers samples >200 observations appropriate to perform an analysis of structural equations. In the present study, 756 surveys were carried out with undergraduate students from five Ecuadorian universities. The data was collected through structured surveys, which is considered appropriate to evaluate relationships between one or more variables (Avolio, 2012). Respondents received the authorization of informed consent, assuring them that the information would be used exclusively for academic purposes.

The instruments used were the result of the literature review, the instrument used is the combination of two validated questionnaires, such as: the questionnaire proposed by (El-Mousawi and Charbaji, 2016), and the questionnaire proposed by (Al-Debei et al., 2013) based on Ajzen's (1991) theory of planned behavior.

The data obtained from the surveys were analyzed using tools such as SPSS 21 and Amos. In the first instance, data preparation was carried out, such as: (a) Missing data, (b) outliers, (c) homoscedasticity, and (d) normality of the data. Subsequently, a confirmatory factor analysis was performed. Finally, once the factors were validated, the multivariate statistical technique of structural equations was carried out to analyze the relationships between the latent variables.

Likewise, we proceeded to determine if the perceived value variable meets the processes to be considered as a mediating variable, in addition to determining the direct, indirect and total effects and the R^2 of the dependent variables.

5. RESULTS AND DISCUSSION

5.1. Descriptive Analysis

A descriptive analysis of the surveyed data is presented, in order to know its demographic characteristics. Of the total surveyed, 56.9% are female, and 43.1% male. Likewise, 89.8% of the population has a single marital status, 6.3% married, 2.8% have a free union and the difference is between divorced, widowed and free union. Finally, the labor status of the surveyed sample was evaluated: 61.9% do not work, 22.9% work in an administrative area and 15.2% work, but not in administrative areas.

5.2. Preparation of the Data

5.2.1. Data lost and outliers

First, the lost data is determined as recommended by (Castillo, 2012), reporting that there is 1% of lost data. Subsequently, in accordance with what was suggested by (Byrne, 2010; Hair et al., 1999), the statistical test of the Mahalanobis distance (D2) was carried out, in order to determine if there are outliers, reporting that there are no Atypical values.

Additionally, another method to determine outliers was the Cook's statistical distance test (Field, 2003), in the same way it could be seen that Cook's distance values are all <1, corroborating that there are no outliers, since, if the distance is >1, it is said to be strongly influential (Cook, 1977).

5.2.2. Normality

To assess normality, the values corresponding to skewness and kurtosis were determined. For asymmetries >3 and kurtosis >10 it is suggested that the data should be transformed (Kline, 2005). The investigation reported asymmetry values <3, and kurtosis <10, concluding that the values individually show normality. Then, the hypothesis of multivariate normality is tested using the Mardia test, which determines that if the sum of the standardized kurtosis index reports a value not >70, the data present a normal distribution of the model. The present investigation reported a value of 58.37; reason why normal distribution is concluded.

5.2.3. Homoscedasticity

In the present investigation, the Engel statistical test was used, in which it is proposed as a null hypothesis, that the errors of each construct follow a homoscedastic normal distribution (Engle, 1982). The proposed test was evaluated, and it was concluded that the errors in each variable follow a homoscedastic behavior.

5.2.4. Structural validity of measuring instruments

It is important to highlight that, firstly, the structural validity of the instrument was verified, by means of a confirmatory analysis, through: (a) Validity of the content; (b) validity of constructs, and (c) internal consistency of each construct using Cronbach's Alpha.

The content validity was carried out through a rigorous literature review, followed by the validity of an expert panel, and finally a pilot test.

Regarding the discriminant analysis, it was carried out through the correlations between constructs which must be different from one as proposed by (Chion and Vincent, 2016). When the relationships between constructs exceed the threshold of 0.50, the existence of discriminant validity in the measurement scales could be doubted (Gónzalez et al., 2006). Some of the correlations exceeded the value of 0.50. When the correlations are high Chion and Vincent (2016) suggest carrying out the statistical student t test between constructs, where the null hypothesis states that the correlation between constructs is equal to one; and the alternative is not equal to one. It is observed that the values reported in the t-student test are greater than the established critical t of 1.645. Therefore, it is concluded that the correlation is statistically different from one, verifying the discriminant validity.

Meanwhile, the convergent validity determines whether the constructs are reliably measuring what they have to calculate (Manosalvas, 2017). Fornell and Larcker (1981) suggested that to verify the convergence of a model, the reliability of the items of each measure should be estimated. Hair et al. (1999) determined that factor loads >0.5 would imply a significant item and can be considered convergent. When evaluating the factor loads of each one, it could be concluded that all were >0.50 and significant with a P = 0.000.

Likewise, Chion and Vincent (2016) suggest the estimation of the Composite Reliability Index, as another indicator to check convergence. In the case of this index, for a variable to be considered marginally acceptable, its value must be >0.7; It can be concluded that it is marginally acceptable, since they are >0.7, as shown in Table 1.

On the other hand, reliability was determined through Cronbach's Alpha. As a general criterion, George and Mallery (2003, p. 231) suggest the following recommendations for evaluating Cronbach's Alpha coefficients: (a) Alpha coefficient >0.9 is excellent, (b) Alpha coefficient >0.8 is good, (c) Alpha coefficient >0.7 is acceptable, (d) Alpha coefficient >0.6 is questionable, (e) Alpha coefficient >0.5 is poor, (f) Alpha coefficient <0.5 is unacceptable. It is concluded that all were acceptable since they reported being all >0.70. Therefore, there is reliability in the instrument. Then, in Table 1, the results of the composite reliability index and Cronbach's Alpha can be seen.

5.3. Findings from the Structural Equation Model

Once the factors were validated, the structural model was estimated and analyzed, considering the relationships between latent variables (Kline, 2005). So, to conclude that the structural model presents a good fit, the following statistics are considered: (a) CFI comparative fit index, (b) mean square root index of RMSEA approximation error, (c) chi statistic square, (d) relative chi-squared or CMIN/DF normative statistic, (e) the adjusted goodness-of-fit index AGFI, and (f) the goodness-of-fit index GFI, as suggested by (Chion and Vincent, 2016). Table 2 shows the recommended values for each of the statistics, in addition to the goodness-of-fit indexes for the model.

From what could be evidenced a good fit based on the results reported in the model such that (GFI = 0.895). Additionally, the root mean square error was within the parameters considered to be

Table 1: Composite reliability index and Cronbach's alpha

Construct	Composite reliability index	Cronbach's alpha
Intention to complete an MBA	0.90	0.956
Attitude	0.73	0.836
Subjective norms	0.83	0.920
Perceived behavioral control	0.89	0.913
Perceived value	0.89	0.940

All coefficients are >0.70

Table 2: General model adjustment indices (absolute and incremental)

Index	Recommended values	Adjustment index
Absolute adjustment measures		
Chi-squared	P>0.20	0
CMIN/DF	<5	3.856
Goodness of fit index (GFI)	≥0.90	0.895
Root mean square error of approximation (RMSEA)	≤0.08	0.062
Incremental adjustment measures		
Adjusted goodness of fit index (AGFI)	>0.80	0.867
Tucker-lewis index (TLI)	≥0.90	0.945
Normalized fit index (NFI)	≥0.90	0.938
Comparative fit index (CFI)	≥0.90	0.954

a good fit (RMSEA = 0.062). Regarding the incremental adjustment measures, their results were (AGFI = 0.867; NFI = 0.938; CFI = 0.954; TLI = 0.945) all of them are on the established parameter to be considered a good fit for the model proposed.

Then we proceeded to estimate the P-values of the regression coefficients, in order to validate the hypotheses presented, the model of which is observed in Figure 2. The multivariate statistical technique of structural equations is a commonly accepted statistical tool for testing fundamentals. theoretical, in various academic disciplines. This is to measure the relationships of the underlying latent constructs (Hair et al., 1999; Klem, 2000; Schumacker and Lomax, 2004)

Next, Table 3 presents the findings obtained in the hypothetical relationships:

As it was evident, hypotheses 1-7 are significant. The perceived value is directly affected by the attitude ($\beta = 0.10$; $P < 0.02$); subjective norms ($\beta = 0.487$; $P < 0.00$); the perception of control ($\beta = 0.318$; $P < 0.00$); and that, in turn, the perceived value has a significant impact on the intention to carry out an MBA ($\beta = 0.894$; $P < 0.00$). Other correlations studied were attitude and subjective norms ($\beta = 0.614$; $P < 0.00$), subjective norms and perception of control ($\beta = 0.658$; $P < 0.05$), attitude and control perception ($\beta = 0.716$; $P < 0.00$).

5.4. Mediation of the Variable Perceived Value

The last three hypotheses 8, 9 and 10 of this investigation are framed in analyzing the mediating effect of the variable Perceived Value in the three routes: (a) The incidence of Attitude, in the Intention to carry out the MBA, considering as mediator variable

Figure 2: Structural model

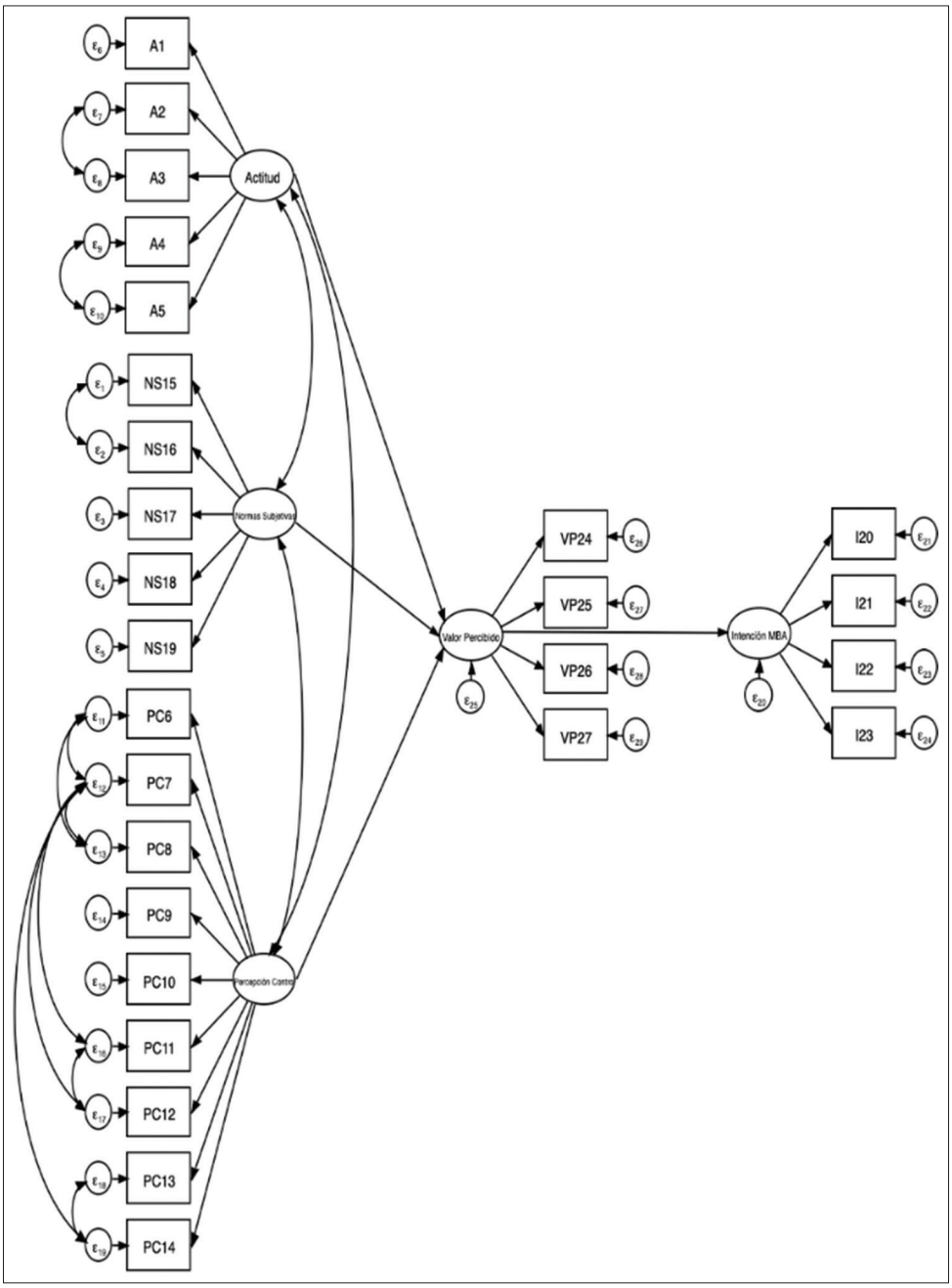


Table 3: Hypothesis analysis results, with standardized coefficients

Proposed hypotheses	Relationship	Standardized estimate	P-value	Observation
H1: The attitude of MBA students influences perceived value	Significant	0.100	0.024	Accepted
H2: The subjective norms of MBA students influence perceived value	Significant	0.487	0.000	Accepted
H3: The perception of behavior control of MBA students influences perceived value	Significant	0.316	0.000	Accepted
H4: The perceived value of doing an MBA influences the intention to do an MBA	Significant	0.894	0.000	Accepted
H5: There is a correlation between attitudes and subjective norms	Significant	0.614	0.000	Accepted
H6: There is a correlation between attitudes and perception of control	Significant	0.716	0.000	Accepted
H7: There is a correlation between subjective norms and the perception of control	Significant	0.658	0.000	Accepted

P<0.05 significant

Perceived value, (b): The incidence of the Subjective Norms, in the Intention to do the MBA, considering as mediator variable Perceived value, and (c) the incidence of the Perceived Behavioral control, in the Intention to do the MBA, considering as a mediating variable Perceived value.

Ato and Vallejo (2011) suggests three tests to verify and check that a variable is considered a mediator: (a) evaluate the total effect of the X → Y model, using a chi square, considering an acceptable adjustment of the model, if the probability of value X^2 with respect to the required degrees of freedom is >0.05, it should be noted that it is considered null hypothesis as H_0: There are no significant differences between the proposed model and the perfect fit, and alternative hypothesis as H_A: There are significant differences between the proposed model and the perfect fit. (b) evaluate the mediated effect of the X → Z → Y model, considering that it must report appropriate adjustment values (first process); in addition to verifying that the independent variable has a significant influence on the mediating variable X → Z; and verify that the mediating variable has a significant influence on the dependent variable Z → Y (second process); and (c) the indirect effect test consists of evaluating the fit produced by the model with mediated effect X → Z → Y, considering two conditions: (1) model in which the route between X → Y is restricted to zero, and (2) unrestricted model. For this, the chi-square test was used, determining if the chi-square difference with its degrees of freedom between both models reports the P > 0.05, meaning that there is no difference between models, and the existence of mediation

From the aforementioned, three routes were evaluated: the first route, the incidence of Attitude, in the Intention to carry out the MBA, considering the perceived value as a mediating variable, as shown in Figure 3.

Likewise, the second route evaluated the incidence of subjective norms, in the intention of adaptation, considering the adaptation capacity as a mediating variable, as shown in Figure 4.

Finally, the third route was evaluated on the incidence of Perception of control, in the intention of carrying out the MBA, considering the perceived value as a mediating variable, as shown in Figure 5.

5.4.1. First test

The total effect of the X → Y model was evaluated, using a chi square, considering an acceptable model adjustment, if the probability of the X 2 value with respect to the required degrees of freedom is >0.05. A P = 0.00 was reported; for the three routes

Figure 3: First route of mediation of the perceived value

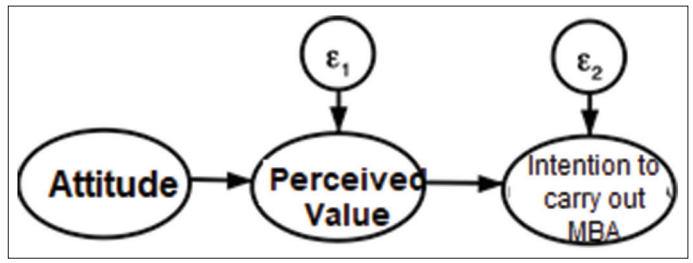


Figure 4: Second route of mediation of the perceived value

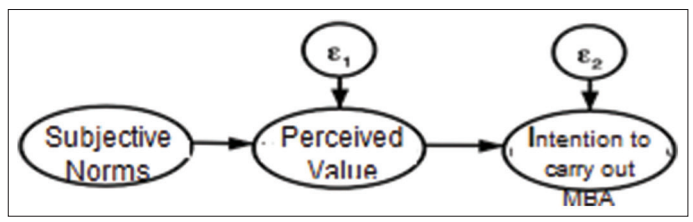
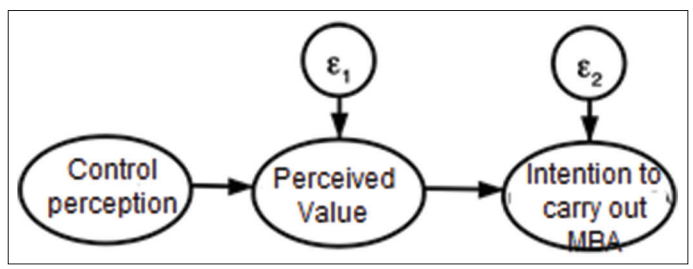


Figure 5: Third route of mediation of the perceived value



for which it is considered that there are significant differences between the proposed model and the perfect fit, therefore, there is no good fit of the proposed model with the perfect fit model in each route. Then, in Table 4, we see in the results of the X → Y model, for the three routes:

From this, the goodness-of-fit indexes of the model were evaluated, since the chi-square generally presents problems due to the sensitivity to the sample size (Chion and Vincent, 2016).

Next, Table 5 shows the goodness-of-fit indexes of the X → Y model for the three routes:

As can be seen in the goodness-of-fit indices, it can be concluded that the fit indexes of the X → Y model proposed for the three routes, present an acceptable fit, fulfilling the first mediation test.

5.4.2. Second test

The first process of the second test consists of evaluating the mediated effect of the X → Z → Y model, considering that it must report appropriate adjustment values; This was done using a Chi-square, considering an acceptable model adjustment, if the probability of the X^2 value with respect to the required degrees of freedom is >0.05. A P = 0.00 was reported for the three routes; therefore it is considered that there are significant differences between the proposed model and the perfect fit, therefore, there is no good fit of the proposed model with the perfect fit model. The results of the three routes are shown below in Table 6:

Table 4: Chi-square evaluation: X → Y model

Routes	Chi-square	df	P-value
Model X (Attitude) → Y (Intention to complete an MBA)	123.207	22	0.000
Model X (Subjective norms) → Y (Intention to complete an MBA)	182.443	24	0.000
Model X (Perceived behavioral control) → Y (Intention to complete an MBA)	274.368	50	0.000

*P<0.05; H_0: There are no significant differences between the proposed model and the perfect fit; H_a: There are significant differences between the proposed model and the perfect fit

From this, the goodness-of-fit indexes of the model were evaluated, since the chi-square generally presents problems due to the sensitivity to the sample size (Chion and Vincent, 2016). The goodness of fit indices for the three routes presented an acceptable fit of the X → Z → Y model, the results of which are shown in Table 7:

Likewise, the second process of the second test was evaluated, which results in two specific tests; the first specific test evaluated the relationship between X and Z, reporting having significant influence on all three routes. The results are shown in Table 8:

Consequently, the second specific process of the second test was evaluated, that is, the relationship between Z (perceived value) and Y (intention to complete an MBA), in the same way it was reported to be significant. The results are shown in Table 9 below:

Therefore, it is concluded that the second mediation test meets an acceptable fit.

5.4.3. Third test

Finally, the third test was evaluated with respect to the three routes, which refers to the adjustment of the model with its mediated effect

Table 5: Model fit measurements: X → Y

Index	Recommended values	Fit index model: X (Attitude) → Y (Intention to complete an MBA)	Fit index model: X (Subjective Norms) → Y (Intention to complete an MBA)	Fit index model: X (Control Perception) → Y (Intention to complete an MBA)
Absolute fit measures				
Goodness of fit index (GFI)	Values >0.90	0.965	0.949	0.945
Root mean square error of approximation (RMSEA)	Values ≤0.10	0.078	0.094	0.077
CMIN/DF	Values <5	5.6	7.602	5.487
Incremental fit measures				
Adjusted goodness of fit index (AGFI)	Values >0.8	0.928	0.905	0.900
Tucker - Lewis index (TLI)	Values >0.90	0.970	0.968	0.958
Comparative fit index (CFI)	Values >0.90	0.982	0.979	0.973

Table 6: Chi-square evaluation: Model X → Z → Y

Routes	Chi-Square	df	P-value
Model X (Attitude) → Z (Perceived Value) → Y (Intent to complete an MBA)	289.948	59	0.000
Model X (Subjective norms) → Z (Perceived Value) → Y (Intention to complete an MBA)	487.146	61	0.000
Model X (Perceived Behavioral control) → Z (Perceived Value) → Y (Intention to complete the MBA)	493.975	103	0.000

*P<0.05; H_0: There are no significant differences between the proposed model and the perfect fit; H_a: There are significant differences between the proposed model and the perfect fit

Table 7: Fit measurements of model X → Z → Y

Index	Recommended values	Fit index model X (Attitude)→Z (Perceived Value) →Y (Intention to complete an MBA)	Fit index model X (Subjective Norms) →Z (Perceived Value) →Y (Intention to complete an MBA)	Fit index model X (Control Perception) →Z (Perceived Value) →Y (Intention to complete an MBA)
Absolute fit measures				
Goodness of fit index (GFI)	Values >0.90	0.943	0.910	0,923
Root mean square error of approximation (RMSEA)	Values ≤0.10	0.072	0.096	0.071
CMIN/DF	Values <5	4.907	7.986	4.796
Incremental fit measures				
Adjusted goodness of fit index (AGFI)	Values >0.8	0.912	0.865	0.886
Tucker - lewis index (TLI)	Valores >0.90	0.968	0.952	0.958
Comparative fit index (CFI)	Valores >0.90	0.975	0.962	0.969

X → Z → Y, for which the chi-square test was used, that is, the chi-square was calculated with its degrees of freedom and p –value, of the unrestricted and restricted model, bearing in mind that when the model is restricted, the route X → Y is set to zero; so that the chi-square variation of the restricted and unrestricted model is finally determined, with their respective degrees of freedom and p-value. This mechanism was carried out in the three routes whose results are presented in Table 10:

From the results presented in Table 10, it can be seen that the difference of chi square with its degrees of freedom, resulted in a P = 0.71128 in the first route, and a P = 0 for the third route. 0.662085; that is, it is concluded not to reject the null hypothesis, considering that there is no difference between models, hence, it can be said that the Perceived Value variable proves the existence of mediation effects in the first and third routes; however, for the second route it resulted in a P = 0.000, that is to say, it is concluded to reject the null hypothesis, considering that there is no difference between models; Hence, it can be said that the variable Perceived Value does not prove in the first instance the existence of mediation effects for the second route, with respect to the third test, however, in the two previous tests, if the mediation effect was accepted, that this case should be evaluated in greater depth, which could be due to the fact that the subjective Norms by themselves are already strongly influencing the intention of individuals to undertake an MBA.

In conclusion, it can be said that, once the three tests have been carried out on the three routes, the variable Perceived value is considered a mediating variable, because it fulfills the causal processes established above. Therefore, hypotheses 8, 9 and 10 are accepted since it represents in its entirety the mediation of the perceived value in the three routes.

5.4.4. Direct, indirect and total effect

Subsequently, the total effect of the explanatory variables on the intention to carry out an MBA was estimated. Kline (2005) stated that the total effect is determined by adding the direct and indirect effects that the variables report. It should be considered that there are no direct effects on the model proposed in this investigation.

On the other hand, a total indirect effect was estimated, by multiplying the direct effect between the exogenous and mediating variable, by the direct effect between the mediating variable and the endogenous variable (Kline, 2005). As an example the indirect effect with standardized coefficients of the attitude is mentioned, it is given by the multiplication of the standardized direct effects of the attitude on perceived value and perceived value on the intention to carry out an MBA, that is to say 0.10 * 0.894; which equals 0.0894.

The analysis of the indirect effect of the variables attitude, subjective norms and perception of control positively influences the intention to carry out an MBA. Finally, the findings in the relationship path shown in Figure 6 and Table 11 are presented.

The interpretation of direct or indirect effects with standardized coefficients, it can be said that for each point of increase in the

Table 8: Test of Mediation of the perceived Value with Coefficients

Relationships			Standardized estimate	Non-standardized estimate	S. E	C.R	P-value	Relationship
Attitude	→	Perceived Value	0.617	0.956	0.075	12.717	0.0000	Significant
Subjective norms	→	Perceived Value	0.725	1.189	0.073	16.213	0.0000	Significant
Perceived behavioral control	→	Perceived Value	0.706	1.254	0.077	16.366	0.0000	Significant

Table 9: Perceived value mediation test with coefficients

Relationships			Standardized estimate	Non-standardized Estimate	S.E	C.R	P-values	Relationship
Perceived value	→	Intention to complete an MBA	0.882	1.090	0.030	35.828	0.000	Significant

*P<0.05; C.R.: Critical ratio index, S.E: Standard error

Table 10: Chi-square test of perceived value mediation

Routes	Chi-square	Df	P-value
Model: X (Attitude) → Z (Perceived Value) → Y (Intention to complete an MBA)			
Unrestricted model	289.361	58	0.000
Restricted model	289.498	59	0.000
$\Delta\chi^2$	0.13700	1	0.71128
Model: X (Subjective norms) → Z (Perceived value) → Y (Intention to complete an MBA)			
Unrestricted model	368.865	60	0.000
Restricted model	487.146	61	0.000
$\Delta\chi^2$	118.281	1	0.000
Model: X (Perceived behavioral control) → Z (Perceived value) → Y (Intention to complete an MBA)			
Unrestricted model	493.784	102	0.000
Restricted model	493.975	103	0.000
$\Delta\chi^2$	0.19100	1	0.662085

P<0.05; H_0: There are no differences between models, H_a: There are differences between models

exogenous variable leads to an increase or decrease in so many points of the endogenous variable. Therefore, given the increase of one unit in attitude, it will increase by 0.10 units in the perceived value.

Likewise, the statistical significance of the indirect effects was determined, 95% confidence intervals were considered, based on the boot strapping method implemented in AMOS. It is considered a significant effect, whether direct, indirect or total, if it does not contain zero in its established confidence interval (MacKinnon, 2008). Table 12 shows the respective results.

According to the results obtained, it can be concluded that the indirect effect between attitude and intention to carry out an MBA is significant (0.0894), because its confidence interval does not include zero. Furthermore, the indirect effect between subjective norms and the intention to adapt to complete an MBA is also significant (0.435378), since it also resulted in a confidence interval that does not include zero. Finally, between perceived behavioral control and intention to perform an MBA (0.282504) it was also significant.

Another important aspect to determine the statistical significance of indirect effects was the Sobel test (Sobel, 1986), for that Sobel proposes in the first instance the calculation of the standard deviation of the indirect effect without standardizing through the following formula:

$$SE_{ab} = \sqrt{(b^2SE_a^2 + a^2SE_b^2)} \quad (1)$$

SEab is the standard deviation of the indirect effect, "a" is the non-standard coefficient of X over Y1 and SEa is its standard deviation, in the same way with "b" is the non-standard coefficient of Y1 over Y2 and SEb is its standard deviation (Sobel, 1986). As an example, the calculation of the standard deviation of the indirect effect without standardizing between attitude and intention to adapt is $SE_{ab} = \sqrt{\left(0.158^2 \times 0.030^2\right) + \left(1.11^2 \times 0.07^2\right)} = 0.0778$. Consequently, the Sobel test is calculated by dividing the unstandardized indirect effect of X multiplied by Y2, for the standard deviation (SEab) of each indirect effect. Therefore, calculating it would be equal to (0.158 * 1.11)/0.0778 = 2.2529 Table 13 shows the results obtained from the indirect effects of the model.

It can be seen in Table 13, that all indirect effects are significant, that is, attitude with the intention to carry out an MBA, likewise the subjective norms with the intention to carry out an MBA and finally perception of control with the intention to carry out an MBA. Therefore, it is concluded that the analyzed tests (boot strapping and Sobel), to see the significance of the indirect effects, are significant within the proposed model.

On the other hand, the R^2 of each dependent variable of the proposed model was determined, it is calculated by subtracting one minus the variance proportion that is not directly explained in the model (Kline, 2005).

The unexplained variance was calculated from the division of the disturbance variance by the observed sample variance of each endogenous variable (Kline, 2005).

As an example, the calculation of the unexplained variance of the intention to perform an MBA was calculated 2.21/2.777, resulting in 0.201 or 20.1%. Therefore, R^2 of the intention to carry out an MBA is 1-0.201, reporting 0.799 or 79.9%. This R^2 is interpreted as the explained variance of the dependent variable. Likewise, it should be interpreted that 20.1% of variability is not explained in the model, which means that it should be addressed for future research, considering other variables according to a rigorous review of the literature.

Similarly, R^2 was determined for the dependent variable perceived value and is 65.5%. Camisón and Villar-López (2010) recommend a minimum value of $R^2 = 0.1$; since it is ensured that at least the variability of the construct from the proposed model.

Finally, it was evaluated whether the proposed model explains the intention to carry out an MBA better than the original model, for this Chion and Vincent (2016) point out that one way of doing it is using the Chi-square goodness of fit test statistic to directly evaluate one model in relation to the other.

Figure 6: Results of the structural equation model

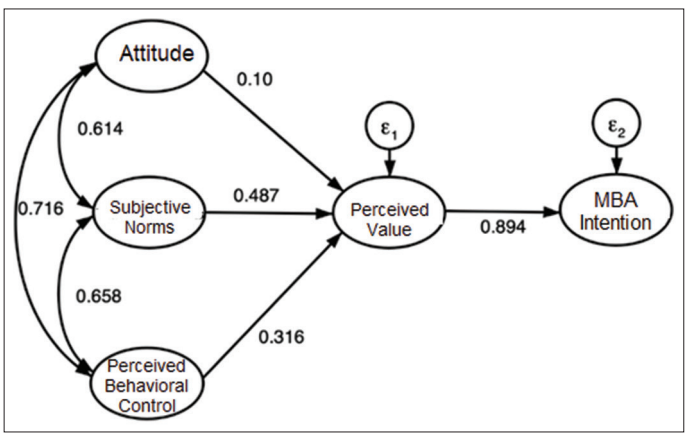


Table 11: Indirect effects analysis of the model with standardized coefficients

	Attitude	Subjective norms	Perceived behavioral control
Intention to complete an MBA	0.0894	0.435378	0.282504

*P<0.05

Table 12: Indirect effects of the structural model

Relationship	Indirect effect	Confidence interval (95%)
Attitude - Intention to complete an MBA	0.08940	0.012 to 0.167
Subjective norms - Intention to complete an MBA	0.43537	0.390 to 0.509
Perceived behavioral control - Intention to complete an MBA	0.282504	0.199 to 0.364

Table 13: Sobel test

	Estimated	Sta. dev.	Sobel statistical	Critical Z	Significance
Attitude → Intention to complete an MBA	0.0894	0.0778	2.2529	2.58	0.000
Subjective norms → Intention to complete an MBA	0.4353	0.0790	10.9817	2.58	0.000
Control percepción → Intention to complete an MBA	0.2825	0.0903	6.8068	2.58	0.000

P<0.05

H_0: The fit of the original model is no different from the fit of the proposed model

H_1: The fit of the original model is different from the fit of the proposed model

For this type of test, the relevant test statistic is $\chi^2_{(4)} = \chi^2_{(299)} - \chi^2_{(206)}$

Where:

$\chi^2_{(4)}$: Statistical Chi-square with 5 degrees of freedom

$\chi^2_{(206)}$= Statistical Chi-square adjustment of the original model

$\chi^2_{(299)}$ = Statistical Chi-square adjustment of the proposed model

$\chi^2_{(c)} = 1152.944 - 764.070$

$\chi^2_{(c)} = 389$

With a significance level of 0.05 with 93 degrees of freedom, the critical value is 131.86.

Decision: Since the test statistic $\chi^2_{(c)} = 389$ is greater than the critical value, then H0 is rejected for the no data fit difference between the two models. Furthermore, with a P = 0.000 the null hypothesis is rejected.

Conclusion: the adjustment of the original model is different from the adjustment of the proposed model; we conclude accepting it. Therefore, the expanded model reported a better explanatory capacity of the intention to carry out an MBA by undergraduate students. This finding allowed to check the general research question.

6. CONCLUSIONS

The objective of the present investigation was to evaluate if the modified Ajzen model explains the intention to carry out an MBA of university students in Ecuador. Therefore, as the main conclusion of the studied population, it can be said that Ajzen's modified model states that the attitude, subjective norms and perceived behavioral control explain the intention to carry out an MBA, considering the mediation of the Perceived Value variable.

The relationships proposed in the hypotheses were evaluated, concluding that both the attitude, the subjective norms and the perceived behavioral control have a positive and significant relationship with respect to the perceived value; However, it is evident that subjective norms and the perceived behavioral control weigh more than 3 times that attitude, which could be due to the fact that the study population is still undergraduate students, who are at an average age of 20-21 years of age and still have a lot of influence from their family and social circle when they make a decision, in addition there is still that economic dependency for the payment of studies. Therefore, for the study population, two topics of high importance are that their decision is supported and well seen by their family circle and that they can count on the resources to try to continue studying. In addition, it could be due to cultural issues since, in the Ecuadorian context, the opinion of society and satisfying the family environment are very relevant. In addition, it can be considered that another aspect is that, of the surveyed population, approximately 62% still do not work and of those who already work 23% do so in administrative areas, so there is not yet a significant number of people who appreciate it as something favorable for your working life.

It is also important to emphasize that the higher the perceived value, the greater the intention to complete an MBA; that is, that the study population considers completing an MBA as long as the benefits outweigh the sacrifices of undertaking such studies; This could be due to the fact that the population investigated are precisely undergraduate students who may feel that they no longer want to continue studying because of the sacrifice that this is causing them at present and that they would only do so because their family or social circle wants it but not because they personally crave it. The population of the studied context has the characteristic of undertaking a new challenge whenever the reward exceeds the sacrifice. One of the evidences of this reality is that the number of teachers who undertook doctorates in the last decade increased since this title guarantees permanence in the academic field and improves income levels.

Continuing with hypotheses 5, 6 and 7 that refers to the correlations between the constructs attitude, subjective norms and perceived behavioral control, it is concluded for the three cases that there is a positive and significant correlation.

Baron and Kenny (1986) establish the process of causal steps to evaluate the existence of mediation of the variable, finding a complete mediation of the perceived value. The findings demonstrate the importance of perceived value, for the analyzed population.

The results of the present investigation demonstrate through the findings found through the structural equations that the attitude, subjective norms, perceived behavioral control explain the intention of the student population to carry out an MBA in the Ecuadorian context considering the perceived value as a mediating variable.

After calculating the unexplained variance, it can be inferred that the unexplained variability in the model is 20.1%, which implies that for future investigations it should be considered that additional

factors may improve the explanation of the endogenous variable. Based on an exhaustive literature review framed in the use of a rigorous research methodology. In the same way, the R^2 of the dependent variable perceived value was determined, being 65.5%.

7. RECOMMENDATIONS FOR FUTURE INVESTIGATIONS

It is suggested for future research to evaluate the model by differentiating between students from public and private universities by categorizing the latter's tuition levels, which could broaden the understanding of factors that hinder the completion of an MBA.

It is recommended to carry out the same study with a population whose characteristic is to have at least 5 years of having completed their undergraduate career in order to determine if, when changing the individual's personal circumstances, the individual presents a different attitude regarding the value they perceive of performing such studies.

Another interesting study could be to carry out a longitudinal study evaluating the same group of people at the beginning of their undergraduate career, at the end of it and after 5 years of graduating in order to observe if the variables under study are changing. Over the years, the maturity of the person and the evolution of their personal and work circumstances, even making the difference of this evolution according to gender.

It is recommended to evaluate the variable perceived value and its effect as a mediator in other studies that evaluate the intention of different behaviors in order to reflect if the results are repeated and therefore consider that the proposed model can be generalized to different behavioral fields.

Another recommendation as a line of future research is to replicate the study in an economy with a similar reality in order to compare if the results coincide with those obtained in the present study.

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