

Relationship between Planned Behavior in Front of the Desire That Student Has to Enroll in the Public Accounting Programs on Distance-teaching Mode in Colombia

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Abstract: Studies on planned behavior and its relationship with consumer practices showing the influence of attitudes, control of perceived behavior, and subjective norm on purchase intention and behavior. Thus, the present research aims to establish the relationship between attitudes, subjective norms and behavior control, compared to the intention of the student to enroll in Public Accounting programs in the Distance modality in Colombia. A correlational study has been carried out, with probability sampling, applying a structured survey with 78 items to 748 students. The results show that there is a relationship between attitudes and subjective norms, and the desire to enroll in Public Accounting programs in the Distance modality in Colombia at 24.2%. The present investigation shows that intention is not a predictor variable; therefore, desire is included in the planned behavior model by identifying that there is a linear equation that predicts desire to enroll.


1 THEORETICAL FRAMEWORK

The great challenges faced by the education sector are associated with coverage, quality, incorporation of Information and Communication Technologies (ICT), and updating of pedagogical and curricular approaches (González-Sanmamed, Sangrà, Souto-Seijo, & White, 2018). Consequently, the Distance modality originates as a source of education directed at people who, for family, work, economic reasons, or place of residence, do not have access to higher education (Zárate, Alvarado & Chávez, 2017). In this sense, the distance academic offer requires social commitment and is closely linked to the equitable generation of opportunities, guaranteeing quality in an inclusive education (Acosta, 2011). Distance education has shown in recent years to be capable of reducing the social inequality gap (Torres, 2017), of training people in remote places, of providing the possibility to the disabled community, and of allowing those who do not have enough economic resources access to opportunities that were previously unimaginable (Aretio, 2017).

In relation to distance higher education in

Colombia, the regulatory framework on the higher education system is copious, tangled, and even for some too detailed (Arboleda and Rama, 2013). The specific regulations on the Distance modality have been scarce and modest both in its content and in the legal instruments used. It has been said that there is only one education, and the differences between face-to-face and distance “modalities”, is simply methodological (García, 2008). In this sense, classifying the so-called distance higher education as a simple modality, and not giving it the importance and position that it should have today in society, translates into ignoring the progress that it has achieved and the barriers that it has eliminated in time and space (Peralta, 2017). The mere fact of accepting at the beginning the norms and laws elaborated exclusively for face-to-face education, shows that a lot is still needed in terms not only legal but also social (Rama, 2017).

Consequently, it is important to understand one of the cognitive processes that occurs in the decision to enroll in Public Accounting programs offered through distance learning in Colombia, through models that explain the influence that attitudes have within the

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intention and later in The conduct; Thus, as Ajzen (2015) proposes the theory of planned behavior (TPB) that includes the following three variables: 1) attitude towards behavior, 2) subjective norms, and 3) control of perceived behavior.

To start, the attitude refers to the consequences associated with a behavior that is related to negative or positive beliefs or thoughts around it (Ajzen and Fishbein, 2005). According to the tricomponent model, attitudes are formed from three dimensions: 1) cognitive, the knowledge obtained by internal and external sources of information; 2) affective, refers to the student in the distance modality that wishes and has the desire to improve themselves and achieve professional fulfillment; and 3) behavioral, the action that leads the student to make the decision to enroll in the Public Accounting program in the distance modality (Rosenberg and Huvland, 1960).

The second variable of the Planned Behavior Model (Fishbein and Ajzen, 2011) establishes that the intention of an individual's behavior is based on the reasoning of beliefs about that behavior; This model starts from the principle that all individual beliefs go through a rational process including attitudes, subjective norms and the control of perceived behavior (Ajzen, 2011). Behavior is influenced by factors from the past such as individual personality containing values, emotional intelligence, experience, and stereotypes; the social part that contains education, gender, race, and culture; and the information available to the individual such as knowledge and influence of the media (Smith et al., 2008).

Finally, the subjective norms are related to the social pressure felt when performing this behavior and the motivation to comply, while the control of perceived behavior includes internal and external control that the individual perceives. (De Leeuw, Valois, Ajzen & Schmidt, 2015).

On the other hand, human needs materialize through desire that is shaped by personality, culture, and society; that is, products or services that satisfy needs. In this sense, culture encompasses perceptions, values, desires, and behaviors learned by an individual immersed in a family group (López & Silva, 2017). Similarly, psychological resources turn to desire as a factor that directly influences the decision (Gantiva, Guerra & Vila, 2017). It is then that the desired attitudes are related to the prediction of behavior (Carrera, Fernandez-Sedano, Muñoz and Caballero, 2019); in this case, take a Public Accounting program in the distance mode.

2 METHODOLOGY

Overall Objective:

Establish the relationship that exists between attitudes, subjective norms, and control of the perceived behavior that the student has, when facing the desire to enroll in Public Accounting programs in the Distance mode in Colombia.

Specific Objectives:

1. Identify if there is a relationship between the student's attitudes and the desire to enroll in Public Accounting programs in the Distance mode in Colombia.
2. Identify if there is a relationship between the subjective norms that the student has and the desire to enroll in Public Accounting programs in the Distance modality in Colombia.
3. Identify if there is a relationship between the control of perceived behavior that the student has and the desire to enroll in Public Accounting programs in the Distance mode in Colombia.
4. Determine what the factors are that have the most significance for the student when enrolling in Public Accounting programs in the Distance mode in Colombia.

Hypothesis:

If the student's attitudes, subjective norms, and perceived behavior are related to the desire to enroll in Public Accounting programs in the Distance modality in Colombia, then a significant correlation will be observed between attitudes, subjective norms and control of perceived behavior with the desire to enroll at an alpha of 0.05.

Participants:

The sampling method is probabilistic. The sample was calculated based on the proportion formula for a finite population, with the following data: Population (N) 48,503 students, 95% confidence level ($Z = 1.96$), 4% error level ($E = 0.04$), and the P Proportion of 50%, for a sample of 593 students. A response was received from 748 students from Colombia, of which 736 are studying Public Accounting in the Distance mode, all respondents consented and agreed to voluntarily participate in the research. 23% of the sample are born men and 77% women. 46% are between 25 and 35 years of age. 68% of the sample are technicians / technologists, with a 71% participation by women. 48% of the sample have a partner (married, with a partner or in common law); 48% are single and 4% are separated.

30% of the students have lived more than 5 years with their partner. 55% have children, showing that 51% have between 1 and 2 children. 36% have people they are responsible for: 33% have one person that they are responsible for and 23% two people.

81% of those surveyed belong to socioeconomic levels 2 and 3 and 60% have a monthly income between US \$ 230 and US \$ 460. 38% of the participants are studying in Bogotá. 60% of men are technicians / technologists, while women with the same degree participate with 71%. 48% of the students stated that the economy / cost of tuition is the first determining factor for choosing a University, without significant differences between both sexes, followed by the recommendations of other people with 21%. The students who took into account the Military Nueva Granada, Andean Area, and Remington institutions are mostly separated (23%). 98% of the students with a partner took into account the Minuto de Dios University Corporation.

21% of students with two children took into account the Andean Area University Foundation, while 93% of students without children took into account the Minuto de Dios University Corporation, students with 3 children (17%) took into account the Nueva Granada Military University. On the other hand, 92% of the respondents who took Uniminuto into account belong to Socioeconomic Level 1, 2 and 3 that is associated with the social and economic position of the participants (Quintero, Barreto, Rincón-Vásquez & Velandia, 2016); While 60% of the people who took into account the University Foundation of the Andean Area are part of Socioeconomic Level 3, 4 or more.

Regarding the academic training of the father, the results show that 93% of the people who took into account Uniminuto their father had primary school as a level of training, while 40% of the people surveyed who took the University into account Military Nueva Granada his father has a level of technological training, and the respondents who took into account the University Foundation of the Andean Area and the University of Pamplona reported a secondary education level for the father (30%) and professional respectively (25%) . Along the same lines, the level of training of the mother for those who took Uniminuto into account is technological with 95%, the mother of the people who took into account the Nueva Granada Military University and the Andean Area University Foundation are specialists (50%), and 20% of those surveyed who took the University of Pamplona into account have mothers with specialization and are represented by 20%.

On the other hand, the occupation of the father for

those who took into account Uniminuto in 94% are independent and are at home, 28% of the people who took into account the University Foundation of the Andean Area have retired parents, on 15 % of the respondents who took into account the Nueva Granada Military University have retired parents and are at home, and the parents of the people who took the Remington University Corporation into account are pensioners (14%). While the occupation of the mother of the people who took into account Uniminuto in 92% are employed, independent and dedicated to the home, 26% of the people who took into account the University Foundation of the Andean Area and the University Militar Nueva Granada (18%) have retired mothers, 14% of those who took into account the Remington University Corporation are employed and are dedicated to the home, and 11% of the people who took into account the Antonio Nariño University Corporation have independent mothers.

When reviewing the reasons for enrolling that the participants considered, the economic reasons stand out at 48% - the cost of tuition, 21% recommendations from other people, and 16% quality. Within the economic reasons - the cost of tuition it is evidenced that 63% corresponds to people who are in a relationship, based on recommendations of other people, it is found that 30% of students older than 45 years within the recognition ratio, 17% of people are separated in terms of marital status, and for whom quality represents, 25% have incomes of less than US \$ 230.

In relation to the means by which people received information from the Public Accounting programs in the distance mode, it is evident that 30% of the students who took into account the University Foundation of the Andean Area found out through outdoor advertising, while the students who took into account the other Higher Education Institutions (IES) found out through Television (16%), Social Networks (17%), and Websites (28%), presenting Uniminuto a difference compared to the other HEIs where the advisor plays an important role with 19%.

Instrument:

Some sections of the questionnaire used by Marroquín (2010) were used to identify the variables that make up the decision-making process of students who choose an advertising career, and then an adaptation was made to the instrument used to identify the relationship between the planned behavior that the student faces when deciding to enroll in Public Accounting programs in the Distance modality in Colombia. The content validation was carried out by evaluating six expert judges in

consumer psychology in the city of Bogotá, Colombia. As a result of the content validation, a survey was obtained with 78 items distributed in two sections. The first with sociodemographic, psychographic and behavioral information of the respondent (45 items) and the second, with 33 items, on aspects associated with the planned behavior (attitude, norm, and control), and 29 items associated with desire.

Main Findings:

Based on the fact that the measurement scale "Planned behavior for distance mode students", (to quote the Quintero, Rodríguez and Díaz, 2020 instrument) is our own creation based on the theory of planned behavior, we proceeded to analyze the reliability, and construct validity. For the calculations, the IBM SPSS version 22.0 software and JASP version 13.0 were used. The reliability of the instrument, measured by Cronbach's Alpha coefficient for the constructs, was: 0.919 for Attitude, 0.729 for Control, 0.780 for Norm, and 0.937 for Desire, showing high values for all.

The construct validity was determined by using the principal components method with promax rotation for each subscale. To clarify the relevance and possibility of a factorial analysis based on the data obtained through the scale "Planned behavior of distance mode students", the KMO (Kaiser-Meyer-Olkin) sample adequacy was verified, where the results showed high goodness adjustment (See tables 1 to 4), which shows that the correlation matrix is different from the identity matrix, indicating that the scale "Planned behavior of distance mode students" has some factorial structure.

For the confirmatory factor analysis, the measures of CFI, TLI, NNFI, NFI, PNFI, and RMSEA, SRMR, GFI, MFI and ECVI were taken, where it is observed that the proposed constructs show good adjustments. Finally, the χ^2 test was omitted, since it is affected by large samples.

The factorial loads of the items on the scale "Planned behavior of distance mode students" were in accordance with what was proposed by the theory. In tables 1, 2, 3 and 4, the factorial load of each of the items that make up the Attitude, Norm, Control and Desire can be observed; the items presented shared loads, and 10 items presented loads below the established cut-off point (0.50); With which, the items Attitude - I am ashamed to study with younger people and Attitude - The economic situation at the end of high school did not allow me to access higher education, Behavior control - Nothing will interfere with achieving the dream Being an accountant, Behavior control - Studying remotely allows me to

attend to other responsibilities, Behavior control - Due to my physical disability, I cannot move easily, Desire to study - I have family accountants, Desire to study - I work in the accounting area, Desire to study - I like to be admired by others, Desire to study - Teaches accounting software, and Desire to study - I can work as an accountant.

When reviewing the correlation between the variables Attitude, Norm, Control, and Desire, Table 5 shows that there is a positive correlation; that is, the variables are directly correlated. In this sense, when the values of the variables that are part of the scale "Planned behavior of distance mode students" are high, they correspond to high values in the other variable. According to the above, there is a greater correlation between the factors: desire and attitude, attitude and norm, and norm and control.

With the above evidence, a linear equation was sought to model the desire of the student to enroll in Public Accounting programs in the Distance mode in Colombia based on the planned behavior, obtaining the following equation.

$$\text{Estimated desire to enroll} = 0.082 + 0.027 \times \text{Attitude} + 0.028 \times \text{Norm (Ec 1)}$$

Where Constant = 0.082, $P < .001$; Attitude Coefficient = 0.027, $P < .001$; Norm Coefficient = 0.028, $P < .001$;

$F(2,716) = 114.012$, $P < .001$; (if there is a linear equation that predicts the desire to enroll)

$R = .491$; ($R^2 = .242$ $R^2 = .242$ = The attitude and the norm explain 24.2% of the behavior of the desire to enroll)

3 CONCLUSIONS AND DISCUSSION

The results of the present research shows that there is a relationship between attitudes and subjective norms in relation to the desire of the student to enroll in Public Accounting programs in the Distance mode in Colombia. This could indicate that the desire factor on the part of the student as an independent variable is not only due to attitudes, or subjective norms, or perceived control; on the contrary, there is a correlation between the three factors; however, the control factor is not the best predictor variable.

As can be seen in the previous section, the variable desire is mentioned; however, this variable is not included in the model of planned behavior proposed by Azjen in 1991, which involves the variables attitude, subjective norm, and control of perceived behavior, as variables that predict the

intention and decision of behavior. At the time of running the exercise in the SPSS software, it was evidenced for this case that intention is not a predictor variable. Therefore, the planned behavior model was adapted, including desire as an important factor prior to the decision to enroll (see figure 1), given that the need for self-realization is materialized through the desire to study, and desire is modeled by the attitude and norm factors in 24.2%, allowing to predict the behavior of the applicants in relation to studying Public Accounting in the Traditional Distance modality.

According to the graph, it is proposed for future research to go to the planned behavior model and include the desire variable in order to validate if it predicts the individual's behavior. However, it is important to highlight that, in research associated with identifying the enrollment decision process in

higher education institutions, the desire variable allows identifying the pattern of behavior in applicants.

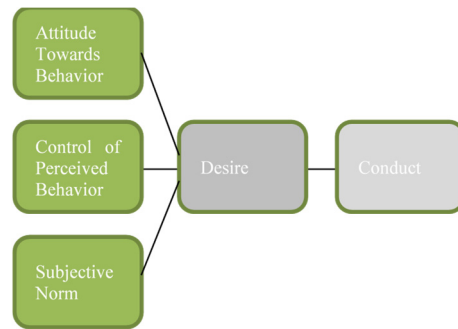


Figure 1: Planned behavior of distance mode students. Source: Self elaboration based on the model proposed by Azjen, 1991.

Table 1: Factorial loads Attitude.

Item	Item Description	Exploratory AF: Rotated Component Factor Loads			Confirmatory AF: Model Description			
		1	2	3	Estimated	SE	p	R ²
ATTITUDE FACTOR								
Attitude Factor 1								
P25.15	Attitude - I believe that the support of the institution guarantees quality in education	,745			$\lambda_{11} =$ 0.55	0.03	< .001	0.53
P25.25	Attitude - The university has prestige	,796			$\lambda_{12} =$ 0.63	0.03	< .001	0.66
P25.26	Attitude - It's a large university	,769			$\lambda_{13} =$ 0.64	0.03	< .001	0.64
P25.27	Attitude - University facilities are optimal	,774			$\lambda_{14} =$ 0.6	0.03	< .001	0.57
Attitude Factor 2								
P25.28	Attitude - High quality of teachers	,826			$\lambda_{21} =$ 0.6	0.03	< .001	0.66
P25.29	Attitude - The university offers high quality post graduate programs	,807			$\lambda_{22} =$ 0.61	0.03	< .001	0.63
P25.30	Attitude - The institution has an excellent level of research	,819			$\lambda_{23} =$ 0.63	0.03	< .001	0.69
P25.32	Attitude - The academic program is modern	,821			$\lambda_{24} =$ 0.58	0.03	< .001	0.67
P25.33	Attitude - The institution has a good level of English	,709			$\lambda_{25} =$ 0.6	0.03	< .001	0.48
% Self Values ->		61.8%			Covariance between Constructs			
					Attitude Factor 1 ↔ Attitude Factor 2 = 0.87			

KMO Attitude = 0.931

Bartlett's test of sphericity:

X² Attitude = 3947.689

p < 0.001

CFI	0.966
TLI	0.953
NNFI	0.953
NFI	0.960
PNFI	0.693

RMSEA	0.084
SRMR	0.029
GFI	0.993
MFI	0.912
ECVI	0.299

Source: Self elaboration based on data analysis.

Table 2: Factorial loads Norm.

Item	Item Description	Exploratory AF: Rotated Component Factor Loads			Confirmatory AF: Model Description			
		1	2	3	Estimated	SE	p	R ²
NORM FACTOR								
P25.2	Subjective norm - The University provides me with the means to graduate in three years	,502			λ ₁₁ = 0.38	0.04	< .001	0.15
P25.10	Subjective norm - My family and friends admire professionals	,695			λ ₁₂ = 0.6	0.04	< .001	0.37
P25.11	Subjective norm - I wish to resume my university studies	,645			λ ₁₃ = 0.51	0.04	< .001	0.29
P25.12	Subjective norm - My boss requires a professional title to get promoted	,725			λ ₁₄ = 0.73	0.04	< .001	0.43
P25.17	Subjective norm - I want to be like the Financial Manager of my company	,633			λ ₁₅ = 0.57	0.04	< .001	0.28
P25.24	Subjective norm - Some of my co-workers are professionals or are studying	,681			λ ₁₆ = 0.62	0.04	< .001	0.35
	%Self Values ->	42.4%			Covariance between Constructs			

KMO Norm = 0.82

Bartlett's test of sphericity:

X² Norm = 683.792

p < 0.001

CFI	1.000
TLI	1.000
NNFI	1.000
NFI	0.988
PNFI	0.593

RMSEA	0.000
SRMR	0.013
GFI	1.000
MFI	1.000
ECVI	0.062

Source: Self elaboration based on data analysis.

Table 3: Control factorial loads.

Item	Item Description	Exploratory AF: Rotated Component Factor Loads			Confirmatory AF: Model Description			
		1	2	3	Estimated	SE	p	R ²
Control Factor								
Control Factor 1								
P25.16	Behavior control - I can study without neglecting my day-to-day activities		,846		λ ₁₁ 0.9	0.09	< .001	0.9
P25.19	Behavior Control - My salary allows me to pay tuition		,821		λ ₁₂ 0.57	0.07	< .001	0.28
Control Factor 2								
P25.5	Behavior control - I have the accounting knowledge that will make it easier for me to study	,849			λ ₂₁ 0.49	0.05	< .001	0.49
P25.6	Behavior control - I do the work for my company's Accountant	,881			λ ₂₂ 0.5	0.06	< .001	0.32
	%Self Values ->	46.2%	26.6%		Covariance between Constructs			

Control Factor 1 ↔ Control Factor 2 = 0.407

KMO Control = 0.571

Bartlett's test of sphericity:

X² Control = 403.526

p < 0.001

CFI	0.979
TLI	0.875
NNFI	0.875
NFI	0.977
PNFI	0.163

RMSEA	0.108
SRMR	0.020
GFI	1.000
MFI	0.994
ECVI	0.049

Source: Self elaboration based on data analysis.

Table 4: Factor loadings Desire.

Item	Item Description	Exploratory AF: Rotated Component Factor Loads			Confirmatory AF: Model Description			
		1	2	3	Estimated	SE	p	R ²
Desire Factor								
Desire Factor 1								
P19.4	Desire to study - Research is studied		,721		$\lambda_{11} =$ 0.49	0.03	< .001	0.38
P19.5	Desire to study - Has several Electives		,630		$\lambda_{12} =$ 0.44	0.03	< .001	0.28
P19.6	Desire to study - I am analytical		,654		$\lambda_{13} =$ 0.36	0.03	< .001	0.32
P19.7	Desire to study - Has mathematical skills		,663		$\lambda_{14} =$ 0.42	0.03	< .001	0.35
P19.8	Desire to study - It is related to Law		,718		$\lambda_{15} =$ 0.52	0.03	< .001	0.39
P19.9	Desire to study - It is related to Economics		,688		$\lambda_{16} =$ 0.44	0.03	< .001	0.45
Desire Factor 2								
P19.10	Desire to study - I can create my own company			,738	$\lambda_{21} =$ 0.34	0.02	< .001	0.33
P19.12	Desire to study - I like business			,752	$\lambda_{22} =$ 0.4	0.02	< .001	0.45
P19.14	Desire to study - I contribute to the community and society			,710	$\lambda_{23} =$ 0.46	0.02	< .001	0.53
P19.15	Desire to study - It's interesting			,766	$\lambda_{24} =$ 0.36	0.02	< .001	0.41
Desire Factor 3								
P19.16	Desire to study - I have friends who study it	,623			$\lambda_{31} =$ 0.54	0.04	< .001	0.28
P19.17	Desire to study - I can get recognition	,788			$\lambda_{32} =$ 0.61	0.03	< .001	0.53
P19.18	Desire to study - I can elevate my status	,770			$\lambda_{33} =$ 0.59	0.03	< .001	0.51
P19.19	Desire to study - I can express what I think	,700			$\lambda_{34} =$ 0.51	0.03	< .001	0.45
P19.20	Desire to study - The job offers are extensive	,614			$\lambda_{35} =$ 0.42	0.03	< .001	0.33
P19.23	Desire to study - I can earn a lot of money	,792			$\lambda_{36} =$ 0.57	0.03	< .001	0.57
P19.24	Desire to study - I can travel	,756			$\lambda_{37} =$ 0.62	0.03	< .001	0.54
P19.25	Desire to study - Get a promotion	,710			$\lambda_{38} =$ 0.51	0.03	< .001	0.48
%Self Values ->		35.7%	9.1%	7.6%	Covariance between Constructs			
KMO Wish = 0.9151					Desire Factor 1 ↔ Desire Factor 2 = 0.646			
Bartlett's test of sphericity:					Desire Factor 1 ↔ Desire Factor 3 = 0.629			
X2 Wish = 4574.532					Desire Factor 2 ↔ Desire Factor 3 = 0.647			
p < 0.001					CFI	0.918	RMSEA	0.062
					TLI	0.905	SRMR	0.040
					NNFI	0.905	GFI	0.992
					NFI	0.892	MFI	0.775
					PNFI	0.770	ECVI	0.852

Source: Self elaboration based on data analysis

Table 5: Pearson Correlations.

	Desire Factor (average)	Attitude Factor (average)	Norm Factor (average)	Control Factor (average)
Desire Factor (average)	1	0,443	0,414	0,324
Attitude Factor (average)	0,443	1	0,525	0,487
Norm Factor (average)	0,414	0,525	1	0,651
Control Factor (average)	0,324	0,487	0,651	1

Source: Self elaboration based on data analysis.

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