# Adoption Of Virtual Social Networks: Expansion Of The Technology Acceptance Model By Integrating Trust And Perceived Risk

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# ABSTRACT

The research aims to determine the level of adoption of virtual social networks in university students between 16 and 45 years of age in the Business Administration program at the Technical University of Oruro, taking into account their characteristics, specifically, trust and perceived risk towards them. The seven constructs identified from the selected model are: use of social networks, ease of use, perceived risk, trust, perceived usefulness, attitude, and intention to use. For the bibliometric analysis of these variables, it is determined that for the constructive use of social networks, the most prominent authors of papers regularly cited in works related to the term Use of Social Networks are Davis and Venkatesh. On the other hand, six of the ten hypotheses raised are accepted and it is determined that the factors that influence the use of social networks are: trust positively affects usefulness, attitude, ease; in addition, perceived usefulness affects the ease of use; ease of use affects user attitude, user attitude affects intention to use, and intention positively affects the use of social networks.

Key words: virtual social networks, trust, perceived risk, attitude.

# I. INTRODUCTION

Virtual Social Networks (VSN) such as Facebook, Whatsapp, Messenger, Instagram, Twitter, Telgram and others; have attracted millions of users since their introduction, and they have integrated these virtual spaces of interaction in their daily practices (Boyd and Ellison, 2008; Ofcom, 2008; Alet, 2001; Anderson and Chintagunta, 1993; Anderson and Srinivasan, 2003); Baker et al. , 1999; Baker and Crompton, 2000). In the present applied research, a scientific analysis is conducted regarding the adoption of online Virtual Social Networking services that is potentially available on the Internet. Structural equation modeling is available to understand this market issue.

One of the models applied to this type of problem is the Technological Acceptance Model (TAM), used to understand user attitudes towards technology (Bloemer and Kasper, 1993; Boulding et al., 1993; Brown et al., 1995; Chaudhuri and Holbrook, 2001; Chen and Tsai, 2007; Dubé and Menon, 2000). Its influence in social psychology, in the analysis of consumer behavior patterns, is indisputable. The TAM model is a theory based on social psychology that establishes a society's degree of acceptance of the introduction of new technologies. То complement the TAM model in the scientific analysis regarding the adoption of online Virtual Social Networking services, this research proposes an extension of the model, including user trust and user perceived risk as constructs or latent variables (Farrelly and Quester, 2005; Fowler and Biekart, 1996; Geyskens et al., 1999; Halinen et al., 1999; Hsu et al., 2007; Hutchinson et al., 2009; Jonhson et al., 1995; Kandampully, 1998; Kang et al., 2005; Lien and Yu, 2001; Liljander and Roos, 2002; Luque, 2001).

Currently, in Bolivia and specifically in the Department of Oruro, it is difficult to use virtual social networks (VSN), because there is no trust in the service, and there is apparently a perceived risk of loss of personal and family privacy. On the other hand, the technology used, such as computers and cell phones, to access the virtual social network service is expensive, including internet service in Bolivia.

This means that potential users of virtual social network services remain anonymous, with little information, and do not stand out in academic institutions, or in the companies or institutions in which they carry out their daily activities. However, the profile of people has a positive correlation with respect to the very rapid evolution of technology and users are more demanding when making decisions when they decide to use virtual social networks and their relationship with trust and satisfaction (Mcgoldrick and Andre, 1997; Miyamoto and Rexha, 2004; Molera and Albadalejo, 2007; Mutairi et al, 2008; Oliver, 1993; Patterson and Smith, 2001; Richards and Jones, 2008; Salgado, 2005; Schechter, 2007; Singh and Sirdeshmukh, 2000; Wei et al., 2008; Yañez et al., 2006; Zins, 2001). Therefore, to reduce the uncertainty of service users' behavior and environment. This research work regarding the adoption of virtual social networks by users is developed by applying the TAM Model, where two latent variables or constructs are included. For companies that offer social network services, it is important to determine whether the latent variables "trust factor in the service and the risk of use of social networks, complementary to the TAM Model, scientifically explain the adoption of virtual social networks.

In this context, a question is formulated: What is the influence of the constructs "trust in the service and perceived risk", which are part of the uncertainty of social behavior and the environment, in the technology acceptance model applied to the adoption of virtual social networks? We intend to answer this question under the following consideration: To perform an analysis of adoption of virtual social networks through the extension of the Technology Acceptance Model with the constructs or latent variables of Trust and Perceived Risk. Case of students of the Economic Sciences Career of the Technical University of Oruro. It is based on the premise that Trust and Perceived Risks are the factors or latent variables that contribute to the adoption of Virtual Social Networks in the students of the School of Economics of the Technical University of Oruro. Therefore, the research formulates the following hypotheses to be studied for their acceptance or rejection in the Technology Acceptance Model:

H1: Social Trust (C) positively influences Social Utility.

Perceived (UP).

H2: Perceived Usefulness (PU) has a positive influence on the attitude of

User (A) of Virtual Social Networks.

H3: User Attitude (A) positively influences the Intention to Use.

(IU) of the Virtual Social Networks.

H4: Intention to Use (IU) positively influences the Current Use of the

System (UA) of Virtual Social Networks.

H5: Perceived Usefulness (PU) positively influences Intention to Use

(IU) of the Virtual Social Networks.

H6: Social Trust positively influences Ease of Use (FUP).

# 2. METHODOLOGICAL ASPECTS

The research independently describes the constructs of the model "adoption of virtual social networks" by students from 16 to 45 years of age of the Business Administration Career of the Technical University of Oruro, taking into account their personal characteristics, specifically, trust and perceived risk towards them. It has been applied based on the particularities of each indicator and its results, also an inference has been made to arrive at general conclusions and thus establish the adoption and use of virtual social networks by users, taking into account their personal

#### - Bibliometric analysis

The corresponding bibliometric analysis was carried out to obtain information that contributes to the research and the following

Figure 1. Conceptual model (TAM).

of perceived RSV (FU)

H7: Perceived Ease of Use (PUF) has a positive influence on the

Perceived Profit (UP)

H8: Perceived Risk (PR) by RSV users positively influences Perceived Usefulness (PU).

H9: Perceived Risk (PR) positively influences Ease of Use

(FUP) of the RSV.

H10: Perceived Risk (PR) positively influences Intention to Use

(IU) of the RSV.

characteristics, in particular the trust and perceived risk towards them.

This research has a quantitative approach since indicators have been determined for each construct of the model "adoption of virtual social networks" and the analysis of the statistical data obtained at the time of obtaining the results through the Smart PLS software has been carried out. The applied technique has been the survey to 74 students from 16 to 45 years old of the Business Administration Career of the Technical University of Oruro.

structure of the research model on "Adoption of virtual social networks" was obtained.



Seven constructs can be identified in this model: trust, perceived usefulness, risk, ease of use, attitude, intention, use of the networks, which will be developed and applied in the statistical analysis in the virtual surveys during the research. To perform the bibliometric analysis of each of the variables of the model, VOSviewer network analysis software was used to elaborate network graphs and heat maps based on the analysis of citations, documents, citation authors and citation countries. On the other hand, Voyant Tools software was used for keyword analysis. Adoption of virtual social networks.

Figure 2 shows in the figures that the most cited authors are Venkatesh.V with 14,312 citations and 435 connections, Davis f.d 9,563 citations and 292 connections, Gefen d. with 5,356 citations and 197 connections.





Source: Prepared with VOSviewer based on SCOPUS, 2020. Figure 3. Diagram of networks represented citation.

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Source: Prepared with VOSviewer based on SCOPUS, 2020.

# **Bibliographic coupling diagram**

The diagram shows in the figures that the authors with the highest number of regularly cited papers are Venkatesh. V with 9 papers

and 435 connections, Davis f. d with 3 papers and 292 connections, Gefen d. with 4 papers and 197 connections.

# Figure 4. Diagram of bibliographic linkage.





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Source: Prepared with VOSviewer based on SCOPUS, 2020.



Figure 5. Diagram of bibliographic linkage (heat map).

Source: Prepared with VOSviewer based on SCOPUS, 2020.

#### Co-citation diagram.

The co-citation diagram is shown in Figure 5 and Figure 6 that the authors with the most co-

citations are: Davis, f. d with 3,479 citations, Venkatesh. V with 2,505 citations and Ajzen, i. with 1,645 citations.

# Figure 6. Co-citation diagram.



Source: Prepared with VOSviewer based on SCOPUS, 2020.

Figure 7. Co-citation diagram.



Source: Prepared with VOSviewer based on SCOPUS, 2020

#### Keyword cloud.

The keyword cloud shows that the two most repeated words in the document are "Networks" with 97 times, "Social" with 79

#### Figure 8. Word cloud

times, "perceived" with 48 times and "ease" with 43 times.



Source: Prepared with Voyant Tools based on based on Scopus, 2020.

#### 3. RESULTS

This chapter presents the results of the research conducted with students between the ages of 16 and 45 years old from the Business Administration Career of the Technical University of Oruro who use the services of the Virtual Social Networks, the research was conducted based on the fulfillment of the objectives and the verification of the hypotheses.

It is observed that the highest percentage of respondents corresponds to students between 16 and 20 years of age with a percentage of 70.3%, which is due to the fact that they are mostly high school students from the previous year. On the other hand, 66.2% of those surveyed are women, due to the fact that in the city of Oruro they have a preference for careers related to the economic area. Also, 33.8% are men, which is probably due to the fact that most men have a greater affinity for other areas of knowledge. The percentage of students

according to their year of study in business administration corresponds to 77.0% of those surveyed being first year students.

#### - Multivariate analysis

The results of the theoretical model adopted for this research were obtained in the SMART PLS software, using the "partial least squares" technique, following a series of steps that help the adequate processing and management of the data detailed below. All the constructs or latent variables that integrate the model were classified as reflective because each of their components or dimensions are a reflection of the construct and depend on it.

For the corresponding statistical analysis, the model diagram was previously designed, introducing each construct and its respective items or indicators, and then proceeded to the first calculation of the PLS algorithm Figure 9.

Figure 9. Initial Model



Source: Own elaboration based on Smart PLS.





Source: Own elaboration based on Smart PLS, 2020.

Validation of the structural equation model requires a series of parameters that are estimated in two stages: the measurement model and the structural model (Barclay, Higgins and Thompson, 1995).

#### Measurement model.

The evaluation of the reflective measurement model is carried out through:

- The validity and reliability of the indicators.
- Internal consistency.
- Convergent validity
- Discriminant validity.

Steps applied and suggested by Medina and Chaparro (2008), Martínez and Fierro (2018) among other researchers. For the validation of the reliability of the indicators First, the individual reliability analysis of the indicators is performed by observing their loadings, Carmines and Zeller (1979) and Cepeda and Roldán (2004) consider adequate the factor loadings greater than 0.707 (also accepting loadings greater than 0.40). Therefore, it is suggested that indicators with lower loadings should be eliminated.

#### Internal consistency.

Internal consistency measures the reliability of the construct, which can be analyzed through Cronbach's alpha, Rho\_A and composite reliability, which have similar interpretations, considering Cronbach's alpha as the most rigorous criterion, followed by rho\_A and finally composite reliability. In addition, the average variance extracted (AVE) was considered. Nunnally and Bernstein (1994) suggest validating these indicators with a value of at least 0.7, considered a "modest" level mainly for exploratory research.

and values of 0.8 or 0.9 for more advanced stages of research.

	Alfa de Cronba	rho_A	Fiabilidad com	Varianza extraí
Confianza rrss	0.869	0.859	0.887	0.419
Intención uso r	0.823	0.830	0.884	0.657
Riesgo percibid	0.831	0.789	0.842	0.356
Utilidad percibi	0.845	0.870	0.895	0.682
actitud rrss	0.869	0.869	0.906	0.658
facilidad usos r	0.845	0.892	0.876	0.473
uso de redes so	0.330	0.528	0.713	0.575

#### Table 1. Reliability and validity of reliability

Source: Own elaboration based on Smart PLS, 2020.

In the analysis of reliability and reliability validity, Cronbach's alpha showed that all coefficients were greater t h a n 0.7, except for the construct "use of social networks" which has a coefficient of 0.330, which was validated with the average variance extracted (AVE) indicator greater than 0.5.

Discriminant validity indicates the extent to which a given construct is different from other constructs (Barclay, Higgins and Thompson, 1995, pp. 285-309). To assess discriminant validity it is necessary to evaluate three criteria: Fornell-Larcker criterion: Crossloadings between indicators and latent variables. HTMT matrix

#### Discriminant validity.



#### Table 2. Fornell-Lacker criterion

Source: Own elaboration based on Smart PLS, 2020.

In the Fornell-Larcker criterion, the amount of variance that a construct captures from its indicators (AVE) must be greater than the variance of the construct below and to the left (Fornell and Larcker, 1981). From the results obtained in the model, all the indicators meet the stipulated requirement. In the criterion of cross-loadings the factor loadings must have a greater value with their own variable than with the others evaluated in the model (Barclay, Higgins and Thompson, 1995, pp. 285-309), as can be seen in the table, these are highlighted by construct, fulfilling all the latent variables.

Finally, the Heterotrait-Monotrait Radius (HTMT) criterion developed by Henseler, 0.90, so it meets the HTMT condition.

#### **Collinearity statistics VIF**

The assessment of potential collinearity between indicators was examined, using the variance inflation factor (VIF), depending on its value this shows that the behavior of an indicator can be explained to a large extent by the remaining variable of the model,

# Ringle and Sartedt (2015) which represents the average of the correlations between indicators measuring the same construct relative to the correlations between indicators measuring 38 different constructs. The HTMT ratio should be below

0.90 (Gold, Malhotra and Segars, 2001). The indicators show that all are less than 0.90 (Gold, Malhotra and Segars, 2001).

concluding that the indicator is not providing different information from the other indicators. According to Diamantopoulos and Siguaw (2006) this indicator should not be greater than 3.3 since there would be high multicollinearity.

Valores VIF del mo	odelo externo (de me	edida)
	VIF	
Ars1	2.186	
Ars2	1.609	
Ars3	2.218	ļ,
Ars4s	2.225	
Ars5	1.863	
lurs1	2.269	
lurs2	1.398	
lurs3	2.692	
lurs4	1.700	
crs1	1.320	1
crs10	1.630	1

crs11	1.619
crs12	1.463
crs2	3.210
crs3	3.017
crs4	3.029
crs5	2.518
сrsб	2.889
crs8	1.917
crs9	1.970
furs1	1.842
furs10	1466

2.094	rprs5	2.097
2.439	rprs6	1.983
2.158	rprs7	2.598
1.722	rprs8	1.951
1.421	rprs9	2.597
1.399	uprs1	1.554
2.787	uprs2	1.775
2.123	uprs3.	2.268
2.747	uprs4	2.851
4.611	urs1	1.041
2.780	urs2	1.041
	2.094 2.439 2.158 1.722 1.421 1.399 2.787 2.123 2.747 4.611 2.780	2.094     rprs5       2.439     rprs6       2.158     rprs7       1.722     rprs8       1.421     rprs9       1.399     uprs1       2.787     uprs2       2.123     uprs4       4.611     urs1       2.780     urs2

#### Source: Own elaboration based on Smart PLS, 2020.

Up to this point it is possible to analyze and determine with the indicators whether the model is statistically significant.

### **PATH coefficients**

The last step in the evaluation of the structural model comprises the evaluation of the algebraic sign, magnitude and statistical significance of the standardized regression coefficients (path coefficients).

As for the algebraic sign, a path with a sign opposite to that postulated in the hypothesis will lead to the hypothesis not being supported, if we take into account the magnitude of the standardized path coefficients ( $\beta$ ), these show the strength of the relationships between the dependent and independent variables. According to Chin (2000) their values must be within the range  $\beta \ge 0.2$  or  $\beta \le -0.2$  to be significant; the higher the value the greater the relationship (prediction) between constructs and the closer to 0, the lower the convergence to the construct. According to the assessment of significance by bootstrapping, the t-statistic and its corresponding  $\rho$  value were taken into account to test the validity and acceptance of the hypotheses.

Media, desviación estándar, valores t, p valores	Intervalos de con	fianza 📃 Intervalos de	Intervalos de confianza con sesgo corregido		Muestras Copiar en el portapa	
	Muestra original (O)	Media de la muestra (M)	Desviación estándar (STDEV)	Estadísticos t (  O	/STDEV])	P Valores
Confianza rrss -> Utilidad percibida rrss	0.264	0.294	0.134		1.971	0.049
Confianza rrss -> actitud rrss	0.408	0.409	0.112		3.631	0.000
Confianza rrss -> facilidad usos rrss	0.381	0.407	0.120		3.165	0.002
Intención uso rrss -> uso de redes sociales	-0.474	-0.480	0.102		4.642	0.000
Riesgo percibido rrss -> Intención uso rrss	0.003	-0.040	0.130		0.020	0.984
Riesgo percibido rrss -> Utilidad percibida rrss	-0.067	0.002	0.182		0.370	0.711
Utilidad percibida rrss -> Intención uso rrss	0.141	0.139	0.118		1.199	0.231
Utilidad percibida rrss -> actitud rrss	0.348	0.353	0.094		3.702	0.000
actitud rrss -> Intención uso rrss	0.668	0.663	0.112		5.940	0.000
facilidad usos rrss -> Riesgo percibido rrss	-0.236	-0.186	0.301		0.784	0.433
facilidad usos rrss -> Utilidad percibida rrss	0.261	0.262	0.125		2.087	0.037

#### Source: Own elaboration based on Smart PLS, 2020.

As can be seen, the constructs trust and usefulness; trust and attitude; trust and ease; Intention to use and use; usefulness and attitude; attitude and Intention to use; ease of use and usefulness have a t-statistic value higher than 1.96 and a  $\rho$  value lower than 0.05. However, the constructs: risk and intention to use; perceived risk and perceived usefulness; perceived usefulness and intention to use; ease of use and perceived risk; have a t-statistic value lower than 1.96 and a p-value higher than 0.05.

It is also possible to observe the relationships between the constructs, six constructs fulfill the postulate of Chin (2000)  $\beta \ge 0.2$  or  $\beta \le -0.2$ ; while the other four do not. This is why, since the constructs have a positive and negative effect, the hypotheses are accepted and rejected as follows:

H1: Social trust (C) positively influences social utility.

Perceived (UP).

(IU) of the Virtual Social Networks

Considering the results obtained in the statistical analysis, this hypothesis is accepted, its p value 0.05 > 0.000 and has a t-statistic value higher than 1.96, it can be concluded that the user's attitude has a positive effect on the intention to use.

H4: Intention to Use (IU) positively influences Current Use (UA) of Virtual Social Networks.(IU) of the Virtual Social Networks.

Considering the results obtained in the statistical analysis, this hypothesis is rejected, its p value < 0.05 and having a lower t-statistic value of 1.96, it can be concluded that

Considering the results obtained in the statistical analysis, this hypothesis is accepted, its p value 0.05 > 0.000 and has a t-statistic value greater than 1.96, it can be concluded that social trust has a positive effect on perceived usefulness.

H2: **Perceived Usefulness** (**PU**) has a positive influence on the **attitude of** 

User (A) of Virtual Social Networks.

Considering the results obtained in the statistical analysis, this hypothesis is accepted, its p value 0.05 > 0.000 and has a t-statistic value higher than 1.96, it can be concluded that perceived usefulness has a positive effect on the user's attitude.

H3: User Attitude (A) positively influences the Intention to Use.

Considering the results obtained in the statistical analysis, this hypothesis is accepted, its p value 0.05 > 0.000 and has a t-statistic value higher than 1.96, it can be concluded that the intention to use has a positive effect on the current use of social networks.

H5: **Perceived Usefulness** (**PU**) positively influences **Intention to Use** 

perceived usefulness does not have a positive effect on intention to use.

H6: Social Trust positively influences Ease of Use (FUP).

of perceived RSV (FU)

Considering the results obtained in the statistical analysis, this hypothesis is rejected, its p value < 0.05 and having a lower t-statistic value of 1.96, it can be concluded that social trust does not have a positive effect on ease of use.

#### Perceived Profit (UP)

Considering the results obtained in the statistical analysis, this hypothesis is rejected, its p value < 0.05 and having a lower t-statistic value of 1.96, it can be concluded that the perceived ease of use does not have a positive effect on the usefulness of use.

H8: Perceived Risk (PR) by RSV users positively influencesPerceived Usefulness (PU).(FUP) of the RSV

Considering the results obtained in the statistical analysis, this hypothesis is rejected, its p value < 0.05 and having a lower t-statistic value of 1.96, it can be concluded that **(IU)** of

#### the RSV

Considering the results obtained in the statistical analysis, this hypothesis is accepted, its p value 0.05 > 0.000 and has a t-statistic value greater than 1.96, it can be concluded that perceived risk has a positive effect on intention to use.

#### Figure 11. Performance and importance map.

Considering the results obtained in the statistical analysis, this hypothesis is accepted, its p value 0.05 > 0.000 and it has a t-statistic value higher than 1.96, it can be concluded that perceived risk has a positive effect on perceived usefulness.

# H9: **Perceived Risk** (**PR**) positively influences **Ease of Use**

perceived risk does not have a positive effect on ease of use.

# H10: **Perceived Risk (PR)** positively influences **Intention to Use**

The final result of the entire analysis process is summarized graphically in the following

Figure 11.



Source: Own elaboration based on Smart PLS.

To understand other specific attributes of each construct that should be enhanced in companies, IPMA analysis, also known as performance versus importance analysis, was performed, this analysis contrasts the total structural model effects and the mean values of the latent variable to highlight areas of improvement that can be addressed with marketing or management activities (Ringle, Sarstedt and Straub, 2012).

The priority factors and with more important characteristics are in the lower right quadrant, however, they present low performance; the results in the lower left quadrant explain the less important characteristics and with low **5. CONCLUSIONS.** 

Once the research has been carried out, the following conclusions can be drawn: Upon conducting the corresponding bibliographic analysis, it was determined to focus the present research based on the structure of the research model "Adoption of virtual social networks" extension of the TAM technological acceptance model, integrating trust and perceived risk. The seven constructs identified from the selected performance; the upper right quadrant whose important attributes and with higher performance, finally, the upper left quadrant with the less important attributes and with high performance (Melo et al., 2018).

In this case, an IMPA analysis of indicators is performed for the objective construct of social network use and the indicators of the following constructs are taken into account: trust, perceived usefulness, perceived risk, intention to use, ease of use, attitude of use. The results of the IPMA matrix of indicators are shown in the following figure:

model are the use of social networks, ease of use, perceived risk, trust, perceived usefulness, attitude, and intention to use. During the development of the bibliometric analysis of these variables, it was possible to determine that: For the construct use of social networks, the most prominent authors of papers regularly cited in works related to the term Use of Social Networks are Davis F. D. and Venkatesh. V On the other hand, they accepted six of the ten hypotheses posed at the beginning throughout the research and it was determined that the factors that influence the use of social networks are: trust positively affects usefulness, attitude, and ease; in addition, perceived usefulness affects the ease of use; ease of use affects user attitude, user attitude affects intention to use, and intention positively affects the use of social networks.

# References

- Alet, J. (2001): Marketing Relacional: Cómo Obtener Clientes Leales y Rentables. Segunda Edición, Ediciones Gestión 2000, S.A., Barcelona, España.
- Anderson; Jain y Chintagunta (1993): "Customer value assessment in business markets: a state of practice study". Journal of Business-to-Business, vol. 1, nº 1, pág. 3-29.
- Anderson, R. y Srinivasan, S. (2003): "E-Satisfaction and E-Loyalty: A Contingency Framework", Psychology & Marketing, vol. 20, nº 2, pág. 123 -138.
- Baker, T.L., Simpson, P.M. y Siguaw, J.A. (1999): "The impact of suppliers' perceptions of reseller market orientation on key relationship constructs", Journal of the Academy of Marketing Science, vol. 27, nº 1, pág. 50-57.
- Baker, D.A. y Crompton, J. L (2000): "Quality, Satisfaction and Behavioral Intentions". Annals of Tourism research, nº 27, pág. 785-804
- Bloemer, J. y Kasper, H. (1993): Brand Loyalty and Brand Satisfaction: the Case of Buying Audio Cassettes anew in The Netherlands, EMAC

Proceedings, Annual Conference. Barcelona.

- Boulding, W., Karla, A.; Staelin, R. y Zeithaml, V.A. (1993): "A dynamic process model of service quality: from expectations to behavioral intentions". Journal of Marketing Research, vol. 30 (Febrero), pág. 7-27.
- Brown, J.R., Lusch, R.F. y Nicholson, C.Y. (1995): "Power and relationship commitment: their impact on marketing channel member performance". Journal of Retailing, vol. 71, nº 4, pág. 363-392.
- Chaudhuri, A. and Holbrook, M. B. (2001): "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty". Journal of Marketing, pág. 81-93.
- Chen, C. F. y Tsai, D. C. (2007): "How destination image and evaluative factors affect behavioural intentions?", Tourism Management, vol. 28, pág. 1115-1122.
- Dubé, L. y Menon, K. (2000): "Múltiple Roles of Consumption Emotions in Post-Purchase Satisfaction with Extended Service Transactions", International Journal of Service Industry Managemente, vol 11, nº 3, pág. 287 - 304.
- Farrelly, F.J.; Quester, P.G. (2005): "Examining Important Relationship Quality Constructs of the Focal Sponsorship Exchange", Industrial Marketing Management, vol. 34, pág. 211-219.
- Fowler, A. y Biekart, K. (1996): "Do Private Agencies Really Make a Difference?", en Sogge, D; K. Biekart y J. Saxby (eds.), Compassion and Calculation. The Business of Private

Foreign Aid. Londres, Transnational Institute/Pluto Press,

- Geyskens, I., Steenkamp, J.E.M. y Kumar, N. (1999): "A meta-analysis of satisfaction in marketing channel relationships", Journal of Marketing Research, vol. 36, mayo, pág. 223-238.
- Halinen, A.; Havila, V.; Salmi, A. (1999): "From Dyadic Change to Changing Networks: an Analytical Framework", Journal of Management Studies, vol. 36, nº 6, pág. 779-794.
- 16. Hsu, M.H., Ju, T.L., Yen, C.H. y Chang, C.M. (2007): "Knowledge sharing behaviour in virtual communities: The relationship between trust, self-efficacy, and outcome expectations". International Journal of Human-Computer Studies, n° 65, pág. 153-169.
- Hutchinson, J.; Lai, F. y Wang, Y. (2009): "Understanding the Relationships of Quality, Value, Equity, Satisfaction and Behavioral Intentions Among Golf Travelers", Tourism Management, vol. 30, pág. 298 - 308.
- Jonhson, M.D.; Anderson, E.W. y Fornell, C. (1995): "Rational and adaptative performance expectations in a customer satisfaction framework". Journal of Consumer Research, vol. 21 (Marzo), pág. 695-707.
- Kandampully, J. (1998): "Service Quality to Service Loyalty: a Relationship which Goes beyond Customer Services", Total Quality Management, vol. 9, nº 6, (agosto), pág. 431-443

- Kang, I.; Jeon, S.; Lee, S. y Lee, C.K. (2005): Investigating Structural Relations Affecting the Effectiveness of Service Management", Tourism Management, vol. 26, n° 3, pág. 301-310.
- 21. Lien, T.B. y Yu, C.C. (2001): "An Integrated Model for the effects of perceived product, perceived service quality, and perceived price fairness on customer satisfaction and loyalty", Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behaviour. Nº 14, pág. 125 - 140.
- Liljander, V. y Roos, I. (2002): "Customer-relationship Levels - from Spurious to True Relationships", Journal of Services Marketing, nº 16, pág. 593-614.
- Luque, T. (2001): "Reflexiones sobre la investigación en marketing", en Non Idem Iterum, Semper Novum (Homenaje al Pro! Dr. Manuel Ortigueira Bouzada), pág. 323-338.
- Mcgoldrick, P. y Andre, E. (1997): "Consumer Misbehaviour: Promiscuity or Loyalty in Grocery Shopping", Journal of Retailing and Consumer Services, nº 4, pág. 73-81.
- 25. Miyamoto, T.; Rexha, N. (2004):
  "Determinants of Three Facets of Customer Trust. A Marketing Model of Japanese Buyer-Supplier Relationship", Journal of Business Research, vol. 57, n° 4, pág. 312-319.
- Molera, L. y Albadalejo, I.P. (2007): "Profiling segments of tourists in rural areas of South-Eastern Spain", Tourism Management, vol. 28, nº 3, 757-767.

- 27. Mutairi, M.S., Hipel, K.W. y Kamel, M.S. (2008): "Trust and cooperation from a fuzzy perspective", Mathematics and computer in simulation, nº 76, pág. 430-446.
- Oliver, R.L. (1993): "Cognitive, affective and attribute bases of the satisfaction response". Journal of Consumer Research, vol. 20 (Diciembre), pág. 418-430.
- Patterson, P.G. y Smith, T. (2001): "Relationship benefits in service industries: a replication in a Southeast Asian context", Journal of Services Marketing, vol. 15, nº 6, pág. 425-443.
- Richards, K.E. y Jones, E. (2008): "Customer relationship management: finding value drivers", Industrial Marketing Management, vol. 37, pág. 120 - 130.
- 31. Salgado, E. (2005). La confianza en Colombia. Edit. Uniandes, Bogotá.
- Schechter, L. (2007): "Traditional trust measurement and the risk confound: An experiment in rural Paraguay". Journal of Economic Behaviour y Organization, nº 62, pág. 272-292.
- Singh, J. and Sirdeshmukh, D. (2000): "Agency and trust mechanisms in customer satisfaction and loyalty judgements". Journal of the Academy of Marketing Science, nº 28, pág. 150-67.
- 34. Wei, Z., Lu, L. y Yanchun, Z. (2008):
  "Using fuzzy cognitive time maps for modeling and evaluating trust dynamics in the virtual enterprises". Expert Systems the Applications, nº 35, pág. 1583-1592.

- 35. Yañez, R., Ahumada, L. y Cova, F. (2006): "Confianza y desconfianza: dos factores necesarios para el desarrollo de la confianza social", Red de Revistas Científicas de América Latina y el Caribe, España y Portugal, pág. 1-13.
- 36. Zins, A.H. (2001): "Relative Attitudes and Commitment in Customer Loyalty Models", International, Journal of Service Industries Management, vol. 12, nº 3, pág. 269-294.