



Exploratory Structural Algorithm of Perceived Risk Factors

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Abstract

The objective of this work was to explore the dimensions of risk perception, considering the sociological categories of territorial, national, public, citizen, private and Internet security. A cross-sectional and psychometric study was carried out with a non-probabilistic selection of 100 students at a public university who participated in civil protection campaigns. An exploratory factorial structure of seven factors was established with their respective indicators which explained 79% of the total variance, although the research design limited these findings to the research scenario, suggesting the extension of the work towards the relationships between the perceptual structure. e risk with respect to a decision structure and risk behaviors.

Keywords: Risk, Perception, Structure, Factor, Model, Exploratory

1. Introduction

Security, in several countries, have been suffered a lack, or absence, particularly when it is talked about governmental participation (Garcia, 2016). Public security can be understood it as the state labor to protect and safe its population from internal dangers or threats (Garcia, 2017).

In Latin-American countries, public safe keeping is perceived as absent, due to big amount of press coverages which exposes mentioned lack (Garcia, 2017). In case of Mexico, day by day, they appear in the news, a bigger quantity of red notes' coverages, which shows a violent face of the country (Garcia, 2019a).

Public safety events occur throughout the world, posing a threat to personal safety, property and national defense (Garcia, 2019b). Mexico's security problems are like the general context in Latin America in many ways (García (2020a).

However, Mexico has an influence of organized crime due to the levels of consumption of illegal products in the US market (Garcia,2020b). Public security has traditionally been understood as the function of the State that consists in protecting its citizens from illegal attacks on (or crimes against) their property, physical integrity, sexual freedom, et (Garcia, 2020c). The meaning of public safety is inferred as security of persons: inherence, inseparability, breadth and focus on justice (Mendoza, 2017). It is stated that our reality's



perception is subjective and that our world's perception depends of our life conditions (Martinez, 2018)

Perception of reality operates from a superior order, from a mesosystem that would include both (perception and reality), and in which each appear like elements and not like closed and independent units (Sandoval, 2020). The notion that: what we see, might not be what is truly there, has troubled and tantalized, all the population in every sector, class, or roll of our society (Carreon, 2017). Different population's sector would have different perception of security (Carreon, 2018)

It can also be mentioned that cultural stigma in the country, also affects and promotes a lack of public safe keeping, due to the general manner of Mexican population's thinking, which in comparison with other cultures, appear to be like sluggish and with a short interest to develop in academic, professional, social, among other aspects (Carreon, 2018)..

The administration of public security is the implementation of public policies that justify the guidance of the State in the prevention of crime and the administration of justice, but only the citizens' distrust of government action is evidenced by a growing perception of insecurity reported in the literature in seven dimensions: territorial, national, public (government), human, public (self-protection), private and internaut (Bustos, 2018)..

Mexico can be seen from diverse scopes like economic, historic, or social (Juarez, 2017).. In that sense, there exist other sub-scopes (or sub-scales in the social scope) like health, public security, education, environmental consciousness, among others (Quintero, 2017). As mentioned before, different population's sectors have different perception of social sub-scopes (or sub-scales) (Rincon, 2018).. In case of bachelor's students, as its scholar formation gives the chance to generate critic manner of thinking, that population's sector can generate a solid perception of factor that affects society's context (Adams, 2020). Security have concern authorities and civil society during last year's (Mejia, 2016). Different society's substrates have different perceptions on security (Aldana, 2018)

Objective of present work is to establish the reliability and validity of an instrument that measures the perception of security in: Territorial security; National security; Public safety (State as general attorney); Human security; Public safety (Self-protection); Private security; and, internaut perception of safety, scopes.

2. Methodology

The experimental design consists of a non-experimental, exploratory and transversal study. The sample was made with a non-random selection of 100 students ($M = 20.1$ $SD = 1.9$ age and $M = 7'231.08$ $SD = 289.12$ monthly income) in a public university in the State of Mexico. 48% are women and 52% are men.

Scale perception of insecurity was constructed which includes reagents perception around security: territorial, national, public (government), human, public (self-protection), private and internaut.



Subscale perception of territorial security. Refers to expectations about the state as rector of the public peace. It includes four reagents respond with any of six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale perception of national security. Refers to expectations concerning the State as procurator of offenses against democracy, national identity or the interests of the population. It includes four reagents respond with any of six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale perception of public safety. Expectations regarding the allusive the state as general attorney. It includes four reagents that are answered with any of six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale perception of human security. Refers to the expectations generated before the crime prevention policies, the administration of justice and the promotion of social peace. It includes four reagents respond with any of six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale perception of public security. It refers to the expectations that citizens generated from the State distrust and alienation with its security institutions, while interest focuses on civil remedies for self-protection. It includes four reagents respond with any of six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale perception of private security. It refers to civil society expectations generated from the State as unable to prevent crime and fight corruption. It includes four reagents that are answered with any of six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale Internaut perception of safety. It refers to the expectations that Internet users consider generated from the state spy your search for information, content selection and dissemination of topics. It includes four reagents that are answered with any of six response options; 0 = "not at all likely" to 5 = "very likely".

Data were processed with Statistical Analysis Package for Social Sciences (SPSS for its acronym in English) and Structural Analysis of Moments (AMOS for its acronym in English). 18,0 versions. Reliability with Cronbach's alpha, validity test Bartlett, KMO and factorial weight was estimated.

Cronbach's alpha was estimated to establish the internal consistency of the overall scale and subscales. Bootstrap parameter was calculated to set the sampling when it is not possible to fully utilize the data and only a portion of the distribution is used. Adequacy and sphericity with parameters Kayser Meyer Olkin and Bartlett's test were calculated. An exploratory factor analysis with principal axes promax rotation and obliquity criterion was performed. The test of the hypothesis was made with the estimation of the parameters of adjustment and residual.

3. Results and Discussion

Table 1 most internal consistency, according to data collection and analysis, in overall scale (0.732). is discrete because evidence the differences between the contexts of study in which security was conceptualized.

Table 1: Descriptive of instrument

<i>R</i>	<i>M</i>	<i>S</i>	<i>K</i>	<i>A</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>	<i>F5</i>	<i>F6</i>	<i>F7</i>
<i>r1</i>	4,1	,19	,12	.71	,37						
<i>r2</i>	4,0	,11	,14	.72	,31						
<i>r3</i>	4,1	,16	,15	.71	,36						
<i>r4</i>	4,1	,13	,16	.71		,47					
<i>r5</i>	4,0	,13	,19	.70		,46					
<i>r6</i>	4,1	,13	,18	.71		,40					
<i>r7</i>	4,0	,17	,16	.71			,30				
<i>r8</i>	4,1	,13	,17	.73			,36				
<i>r9</i>	4,1	,18	,12	.71			,34				
<i>r10</i>	4,0	,19	,11	.74				,53			
<i>r11</i>	4,3	,11	,15	.70				,30			
<i>r12</i>	4,1	,10	,13	.70				,30			
<i>r13</i>	4,1	,10	,10	.71				.	,42		
<i>r14</i>	4,0	,13	,11	.73					,39		
<i>r15</i>	4,0	,12	,13	.71					,38		
<i>r16</i>	4,1	,18	,12	.71						,62	
<i>r17</i>	4,3	,19	,16	.71						,38	
<i>r18</i>	4,1	,19	,18	.72						,42	
<i>r19</i>	4,1	,19	,19	.70							,42
<i>r20</i>	4,1	,12	,13	.71							,39
<i>r21</i>	4,3	,19	,13	.71							,62

Note: Elaborated with data study: R = Reactive, M = Media, S = Standard Deviation, K = Kurtosis, A = Cronbach's Alpha. Adequation (KMO = ,764), Sphericity [$\chi^2 = 267,2$ (18gl) $p < ,01$] Method: Principals Ways, Rotation: Promax. F1 = Perception of territorial security (alpha of 0.751 and 20% of the total variance explained); F2 = Perception on national security (alpha of 0.768 and 17% of the explained variance); F3 = Perception of public safety (alpha of 0.745 and 15% of the variance explained); F4 = Perception of human

security (alpha of 0.742 and 10% of the explained variance); F5 = Perception of public security (alpha of 0.704 and 8% of the explained variance); F6 = Perception private security (alpha of 0.701 and 6% of the explained variance); and F7 = Perception internaut safety (alpha of 0.700 and 3% of the explained variance).

A second study, once the factors were established, possible and associative linear relationships were estimated to investigate the emergency of a second order factor common to the seven first-order factors found (see Table 2).

Table 2. Correlations & covariations of the factors

	F1	F2	F3	F4	F5	F6	F7	F1	F2	F3	F4	F5	F5	F7
F1	1,0							1,6						
F2	,42	1,0						,55	1,7					
F3	,51	,51	1,0					,61	,62	1,6				
F4	,65	,62	,40	1,0				,48	,69	,53	1,9			
F5	,49	,53	,66	,56	1,0			,60	,50	,51	,60	1,9		
F6	,54	,62	,68	,44	,69	1,0		,53	,61	,67	,57	,63	1,8	
F7	,60	,41	,41	,56	,52	,66	1,0	,67	,63	,53	,65	,52	,61	1,7

Note: Elaborate with data study: F1 = Perception of territorial security; F2 = Perception on national security; F3 = Perception of public safety; F4 = Perception of human security; F5 = Perception of public security; F6 = Perception private security; F7 = Perception internaut safety: * $p < ,01$; *** $p < ,001$; *** $p < ,0001$

The values of the adjustment and residual parameters [$\chi^2 = 135.34$ (32gl) $p = 0.054$; GFI = 0.995; CFI = 0.990; RMSEA = 0,003] suggest the non-rejection of the null hypothesis relative to the significant differences between the theoretical relationships established in the literature with respect to the empirical relationships found in the study.

4.1.Discussion

In Mexico, a common interpretation or idea prevails that the country is lacking in security. The absence of custody is influenced by the presence of organized crime, the illegal sale of drugs and weapons, and the corruption available in each branch of government, among the main aspects.

The correlations of reliability and validity when the unit far show that there are other dimensions linked to construct. In this sense, the inclusion of self-control explains the effects of state propaganda regarding crime prevention, law enforcement and peace education on lifestyles of civilian sectors.



The contribution of this study is concerned about the reliability and validity of an instrument which measured seven dimensions of security: territorial, national, human, public, public, private and digital.

The studies on public safety identify in the government's expectations the predominant factor that explains the phenomenon as an efficient, effective and effective institution, but in the present work the emergence of this phenomenon has been demonstrated from a structure of perceptions around the personal, citizen, public, human, national and territorial agenda.

4. Conclusion

The objective of this work was to corroborate the factorial structure of perceived safety, although the research design limits the finding of the research scenario, suggests the construction of an agenda and the incidence in security policies based on opinions and expectations of the governed with respect to the performance of their rulers.

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