

Confirmatory factorial model of the administration of perceived security against COVID-19

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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 from a public university who participated in civil protection campaigns. An exploratory factorial structure of four factors was established with their respective indicators that 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 of risk with respect to a decision structure and risk behaviors.

Keywords: risk perception, structure, factor, model, exploratory

Introduction

The pandemic activated mitigation and containment policies for people that had an impact on risk scenarios such as citizen security (García et al., 2021). In this sense, social distancing and confinement had an impact on the reduction of homicides, assaults and kidnappings, but increased extortion and fraud. Consequently, the public security strategies derived from the pandemic were ambivalent regarding the citizen's perception of risks. In this way, the approach to the problem opens the discussion around the impact of COVID-19 on the perception of risks of the governed in the face of anti-COVID-19 and security policies.

The objective of this 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 Attorney General); human security; Public

security (Self-protection); Private security; and Internet perception of security.

Are there significant differences between the structure of risk perception in the literature from 2019 to 2022 with respect to the observations made in the present study?

The premises that guide the present work suggest that the pandemic increased the risks of public security, even when the media reported the reduction in cases of homicides, kidnappings or robberies, the perception of the governed intensified and oriented towards Internet security. (García, 2022). In this way, extortions through electronic networks became present, adding to the risk expectations of citizens. Consequently, citizen security was established as biased perceptions or expectations of security in the face of pandemic mitigation and containment policies, as well as its structure of indicators related to

national, human, public, citizen, private and Internet security.

Security management theory

Security, in several countries, has suffered shortcomings, or absences, particularly when it comes to government participation (García et al., 2016). Public security can be understood as the work of the State to protect and safeguard its population from internal dangers or threats. In Latin American countries, public custody is perceived as absent, due to the large amount of press coverage that exposes the aforementioned offense. In the case of Mexico, day by day, a greater number of red notes appear in the news. ', which shows a violent face of the country. Public safety events occur all over the world and pose a threat to personal safety, property, and national defense. Mexico's security problems are like the general context in Latin America in many ways.

However, Mexico is influenced by organized crime due to the levels of consumption of illegal products in the US market (García, 2015). Public security has traditionally been understood as the function of the State that consists of protecting its citizens from illegal attacks (or crimes against) their property, physical integrity, sexual freedom, etc. The meaning of public security is inferred as personal security: inherence, inseparability, breadth and focus on justice. It is stated that the perception of our reality is subjective and that the perception of our world depends on our living conditions.

The perception of reality operates from a higher order, from a mesosystem that would include both (perception and reality), and in which each one appears as elements and not as closed and independent units (Carreón et al., 2013). The notion that: what we see, might not be what is really there, has worried and tormented the entire population in all sectors, classes or roles of our society. Different sectors of the population would have different perceptions of security. It can also be mentioned that the cultural stigma in the country also influences and promotes the lack of public protection, due to the general way of thinking of the Mexican population, which, compared to other cultures, is shown as lazy and

with little interest. to develop in academic, professional, social aspects, among others.

The administration of public security is the implementation of public policies that justify the orientation of the State in the prevention of crime and the administration of justice, but only the distrust of citizens towards government action is evidenced in a growing perception of insecurity reported in Literature. in seven dimensions: territorial, national, public (government), human, public (self-protection), private and Internet user (García et al., 2014). Mexico can be seen from various fields such as economic, historical or social. In this sense, there are other areas (or subscales in the social field) such as health, public safety, education, environmental awareness, among others. As mentioned above, different sectors of the population have a different perception of the social domains (or subscales). In the case of undergraduate students, to the extent that their school education gives them the opportunity to generate critical thinking, this sector of the population can generate a solid perception of a factor that affects the context of society. Security has worried the authorities and civil society during the past year. Different substrata of society have different perceptions about security.

Security management studies

The literature published from 2019 to 2020 collects findings related to the dimensions of security: human, national, territorial, public, citizen, private and Internet, although it adds a new dimension alluding to the pandemic, and which is known as environmental security to relate it to the impact of zoonoses on human activity (García, 2021). In this way, security continues to be the central axis of the public agenda. The relationship between the rulers and the ruled is regulated by security systems, but a new dimension underlies the pandemic that explains the prevention of risks of contagion, disease and death from COVID-19. Consequently, the security dimensions remain in their ranges of importance, although they are reoriented towards the mitigation and containment of the community transmission of the new SARS CoV-2 coronavirus.

The literature mentions that territorial security acquired a new sense of border closure to prevent the spread of COVID-19, even when such a strategy did not contain the pandemic (Espinoza et al., 2020). In addition, territorial security advanced towards the regulation of migratory flows as carriers of the coronavirus and their attempts to reach countries before, during and after the pandemic. In this sense, national security translated into strategies of confinement and distancing. National security was legitimized from the stigma towards poor countries with respect to the governed and rulers of rich countries. The phenomenon had already been observed with the NH1 influenza pandemic, although with COVID-19 the perceptual risk biases associated with cultures, carriers and professionals were appreciated.

Human security was also impacted by the pandemic (Martínez et al., 2019). The increase in hours at home in a compulsory way impacted the relationships between people. Consequently, intramural violence went from being a family phenomenon to being translated into a public agenda of national and international interest. During the days of confinement, humans were involved in uncertainty about the evolution of the pandemic and the supply of resources. The increase in the consumption of products translated into an exhaustive demand. Human security and public safety were distinguished by the degree of impact of the pandemic on localities and households.

Regarding citizen and private security, the pandemic led to a biased chain of opinions and protection measures that increased conflicts between people, as well as between residents and migrants (Lirios et al., 2020). The health sector and public or private health care professionals were stigmatized and threatened in their entirety by being considered carriers of COVID-19. The State implemented security protocols for health professionals in the most critical moments of the pandemic, although the stigma had already been observed in other epidemiological risk events, the pandemic of the new SARS CoV-2 coronavirus intensified personal security measures, family and neighborhood.

The literature from 2019 to 2022 that observed Internet security increased its reports by pointing out that extortion was the main risk for users of digital networks (Coronado et al., 2022). Fake news preceded extortion, identity theft and harassment, but it was the State that tried to generate a change of heart in its anti-COVID-19 policies by diverting attention towards shared responsibility.

Security management model

Based on the theoretical, conceptual and empirical frameworks, an explanatory model of the dimensions of perceived safety is proposed (García, 2019). Dimensions related to humanity, the territory, the nation, the public, citizenship, the Internet and the pandemic are included. A first proposal is to include each of the dimensions as a second-order reflection. In other words, security as the guiding axis of the relations between the governors and the governed would be indicated by each of the exposed dimensions, although the literature recommends a hybrid structure where human, territorial and national security are abstractions that would determine specific risk biases. In this way, the proposal suggests a model of predecessor variables that influence predictor variables of Internet user security. Public, citizen and private security as moderators of the antecedent variables would explain the increase in extortion on the Internet.

Methodology

The experimental design consists of a non-experimental, exploratory and cross-sectional 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) at a public university in the State of Mexico. 48% are women and 52% are men.

A risk perception scale was built that includes perception reagents around security: territorial, national, public, human, citizen, private and internet user.

Subscale of perception of human security. It refers to the expectations generated by crime prevention policies, the administration of justice and the

promotion of social peace (García and Bustos, 2021). It includes four items that respond with any of the six response options: 0 = "not at all likely" to 5 = "very likely".

Territorial security perception subscale. It refers to the expectations about the State as the rector of public peace (Carreón et al., 2018). It includes four items that respond with any of the six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale of perception of national security. It refers to the expectations about the State as the prosecutor of crimes against democracy, national identity or the interests of the population (García et al., 2013). It includes four items that respond with any of the six response options: 0 = "not at all likely" to 5 = "very likely".

Public safety perception subscale. It refers to the expectations that citizens generate from the distrust and alienation of the State with its security institutions, while the interest is focused on civil resources for their self-protection (García, 2014). It includes four items that respond with any of the six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale perception of citizen security. Expectations regarding the allusive State as attorney general (Espinoza et al., 2022). It includes four items that can be answered with any of the six response options: 0 = "not at all likely" to 5 = "very likely".

Subscale of perception of private security. It refers to the expectations of civil society generated from the State as incapable of preventing crime and combating corruption (García, 2018). It includes four items that can be answered with any of the six response options: 0 = "not at all likely" to 5 = "very likely".

Internet user's perception of security subscale . It refers to the expectations that Internet users consider generated from the spy state of their search for information, selection of content and dissemination of topics (Aguayo et al., 2022). It includes four reagents that are answered with any of the six response options; 0 = "not at all likely" to 5 = "very likely".

The data was processed with the Statistical Analysis Package for Social Sciences (SPSS) and Structural Analysis of Moments (AMOS). 18.0 versions. Reliability was estimated with Cronbach's alpha, Bartlett validity test, KMO and factorial weight.

Cronbach's alpha was estimated to establish the internal consistency of the global scale and the subscales (García, 2012). The Bootstrap parameter was calculated to establish sampling when it is not possible to fully use the data and only a part of the distribution is used (García et al., 2017). The adequacy and sphericity were calculated with the Kayser Meyer Olkin parameters and the Bartlett test (García et al., 2019). An exploratory factorial analysis was performed with the promax rotation criteria of main axes and obliquity (Sandoval et al., 22). The hypothesis test was performed with the estimation of the fit and residual parameters.

Results

Internal consistency, according to data collection and analysis, on a global scale (0.732). it is discreet because it shows the differences between the study contexts in which safety was conceptualized. In a second study, once the factors were established, possible and associative linear relationships were estimated to investigate the emergence of a second-order factor common to the four first-order factors found. The factorial structure is confirmatory only of the first factor related to public security. In other words, the perception of security was reflected in citizen, private and Internet security, while it is concomitant with public security. It then means that the pandemic modified the structure of the perception of security, directing it towards specific and delimited dimensions (see Figure 1).

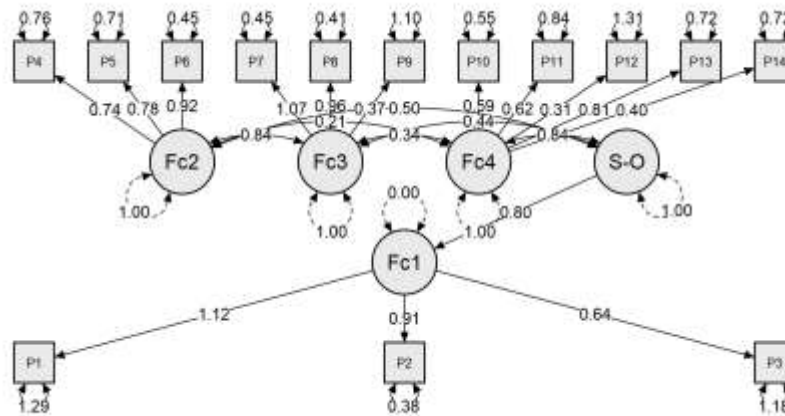


Figure 1 . Confirmatory model of perceived safety against COVID-19

Source: Prepared with study data

The covariance structure between the indicators suggests the prevalence of positive interactions between the indicators of citizen, private and Internet security. In relation to the indicators of public safety, the relationships between the indicators of the other dimensions are close to unity. Values close to zero were assumed as

evidence of spurious relationships and those close to unity as evidence of robust relationships. In this way, the covariance structure suggests the possibility that a fifth factor can be included in the model because the national security dimension was a central axis in the anti-COVID-19 agenda with the closing of the borders.

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14
P1	0													
P2	.04	0												
P3	.13	0	0											
P4	.06	.07	.39	0										
P5	.07	.14	.22	.11	0									
P6	.23	.07	.23	.06	0	0								
P7	.13	.12	.21	.01	.11	.1	0							
P8	.18	.07	.16	0	.05	.04	.01	0						
P9	.14	.1	.08	.05	.11	.06	.06	0	0					
P10	.11	.11	.08	.1	.45	.26	.13	.27	.04	0				
P11	.06	.21	.08	.07	.03	.05	.03	.11	.26	.01	0			
P12	.21	.04	.02	.35	.25	.36	.37	.26	.3	.07	.05	0		
P13	0	.01	.13	.04	.11	.31	.26	.03	.32	.12	.15	.08	0	
P14	.14	.03	.41	.01	.11	.05	.01	.08	.07	.09	.02	.31	0	0

Figure 2 . Covariance structure between the dimensions of perceived security against COVID-19

Source: Prepared with study data

The values of the adjustment parameters and residuals [$\chi^2 = 135.34$ (32df) $p = 0.054$; GFI = 0.995; CFI = 0.990; RMSEA = 0.003] suggest the non-rejection of the null hypothesis regarding the significant differences between the theoretical relationships established in the literature with respect to the empirical relationships found in the study.

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 reliability and validity correlations when the unit shows that there are other dimensions linked to the construct. In this sense, the inclusion of self-control explains the effects of state propaganda on crime prevention, law enforcement and peace education on the lifestyles of civilian sectors. The contribution of this study lies in the reliability and validity of an instrument that measured seven dimensions of security: territorial, national, human, public, private, and digital. Studies on citizen security identify the government's expectations as 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 evidenced from a structure of perceptions around the personal, citizen, public, human, national and territorial agenda.

Conclusion

The objective of this work was to corroborate the factorial structure of perceived security, although the research design limits the finding of the research scenario, it suggests the construction of an agenda and the impact on security policies based on the opinions and expectations of the

governed regarding the performance of their rulers. In this way, the construction of anti-COVID-19 policies is recommended considering the relationships found between the dimensions of citizen, private and Internet security, as well as their moderation by public security strategies and the discontinuity of human, territorial security programs. and national.

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