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Review of entrepreneurship in the COVID-19 era

Revisión del emprendimiento en la era COVID-19

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ABSTRACT

In the Covid-19 era, the policies of confinement and distancing of people open up areas of opportunity that the present study set out to analyze. A documentary, systematic and retrospective work was carried out with a selection of sources indexed to international repositories, considering the period of the pandemic from December 2019 to November 2021. A structural equation model was established in which the prevalence of five dimensions reported in the literature: opportunism, efficacy, environmentalism, governance and resilience. In relation to anti-Covid-19 policies, axes of review and discussion are recommended to contribute to the public agenda.

Keywords:

Covid-19, Entrepreneurship, Model, Repository, Social Work

RESUMEN

En la era Covid-19, las políticas de confinamiento y distanciamiento de personas abren áreas de oportunidad que el presente estudio se propuso analizar. Se realizó un trabajo documental, sistemático y retrospectivo con una selección de fuentes indexadas a repositorios internacionales, considerando el periodo de la pandemia de diciembre de 2019 a noviembre de 2021. Se estableció un modelo de ecuaciones estructurales en el que se observó la prevalencia de cinco dimensiones reportadas en la literatura: oportunismo, eficacia, ambientalismo, gobernanza y resiliencia. En relación con las políticas anti Covid-19 se recomiendan ejes de revisión y discusión para contribuir a la agenda pública.

Palabras claves:

Covid-19, Emprendimiento, Modelo, Repositorio, Trabajo Social

1. Introduction

In the context of the pandemic, anti-COVID-19 policies are distinguished by bringing together various sectors and social strata around risk prevention [1]. The infections, diseases and deaths associated with the SARS CoV-2 coronavirus are abated from mitigation and containment policies, as well as distancing strategies, confinement and immunization programs[2]. In this scenario, the State, in terms of financing, has oriented the undertaking towards the most vulnerable sectors, although it recommends reactivation after the vaccination scheme.

Entrepreneurship is defined as the optimization of resources and process innovation[3]. The optimization of resources suggests the management of opportunities in risk situations such as the pandemic[4]. The state of exception is declared due to the scarcity of resources, the growing unhealthiness and the shortage of medicines because the demand exceeds the supply[5]. In this perspective, the State orchestrates the optimization of resources by disseminating microfinance for micro and small companies because 90% of jobs are generated by this sector[6].The optimization of resources supposes the redistribution of supports.

However, the redistribution of incentives to micro and small companies assumes that the State knows the relationship between local or sector supply and demand[7]. Since the information related to preferences, choices and consumptions is updated and assumes a non-linear dynamic, the optimization is limited[8]. Consequently, the government adopts a process innovation strategy to fill the data gap to guide the venture[9]. Microfinance oriented towards new forms of commerce is included in process innovation[10]. The State generates fiscal and monetary incentives to reactivate local commerce based on innovative advantages[11]. This is the case of communities organized in cooperatives and associated with municipal development programs.

Even though the governors and the governed establish an exceptional synergy in the face of a risk scenario, the

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structure of this undertaking has not been disclosed[12]. The literature warns that optimization and innovation are related but indicates the dimensions that link them[13]. The objective of this work was to analyze the structure of entrepreneurship reported in the literature during the pandemic.

Are there significant differences between the dimensions reported in the literature with respect to the observations made in the present work?

The premise that guides this work suggests the dimensions of entrepreneurship derive from contingent scenarios[14]. It means then that the optimization of resources and the innovation of processes are complementary[15]. Furthermore, the features of both dimensions imply a link between State strategies and local initiatives. Opportunities, expected results, environmental requirements, local resilience and governance underlie this scenario.

2. Theory of social entrepreneurship

The theoretical and conceptual frameworks that explain entrepreneurship assume its emergence in risky contexts[16]. In the case of the pandemic, entrepreneurship theory considers opportunism to be an initial reaction of the actors[17]. The state and workers take advantage of the opportunities that underlie the scarcity of resources, but they also generate opportunities from innovative proposals[18]. The difference between optimization and innovation is explained from the theory of entrepreneurship as an anticipated efficiency[19]. The policies and strategies that guide optimization depend on expected results, but if they promote innovations, they guide collaboration towards competition[20]. The State encourages entrepreneurship from the redistribution of financing but generates trust by allowing innovation.

Anticipated effectiveness is built from trust between the arts involved[21]. The results are achieved when the interested parties establish alliances based on the image of effectiveness or the prestige of the achievements[22]. Optimization assumes a relationship of mistrust because a result is expected, while innovation is synonymous with confidence because no goals are set and only increasing benefits are expected[23]. The State that trusts entrepreneurs knows that their investment will return and activate a climate of support and collaboration[24]. Entrepreneurs who trust the government do not know the amount of support and delivery dates, but they are sure that the State will support them.

Trust breeds anticipated effectiveness. By adding environmentalism to opportunism and trust, it enhances entrepreneurship[25].The Sustainable Development Goals (SDG) and the Summit of the Parties (COP-26) are guidelines and instruments of trust between the governors and the governed[26]. Entrepreneurship emerges when the government and workers follow the SDGs, but optimization and innovation underlie when governments commit to protecting workers' proposals at summits[27]. If trust prevails between the rulers and the ruled, then the venture acquires a symbolic efficacy.

Resilience is more than a response to risk events such as pandemic, floods, droughts, fires, frosts or earthquakes[28]. Before establishing a relationship of trust between the State and entrepreneurs, resilience brings together negative and positive factors[29]. After the trust between the parties, resilience is seen as an initiative or anticipation of risk events[30]. In this way, resilience is indicative of entrepreneurship because it is specified in actions that give value to the rulers and the governed.

Governance underlies governance in a scenario of resilience, opportunism, efficacy, and environmentalism among interested peers[31]. The system in which the State and entrepreneurs open the discussion around the amount of support, consensus regarding promotions and co-responsibilities in the mid-term is known as governance[32]. Once the parties involved reach an observable resilience for their initiatives and agreements, they can co-govern themselves[33]. That is, state management and social self-management of resilience achieve a socio-state co-management or governance. Entrepreneurship acquires an inexorable social political dimension for the parties involved[34]. This is the case of Scandinavian localities where the government is a facilitator of co-management and does not intervene without prior negotiation with the communities.

3. Studies of social entrepreneurship

Research showing a significant relationship between resource optimization and process innovation in the face of the pandemic maintains: 1) opportunism is an effect of the health and economic crisis; 2) resource optimizations emerge from State intervention through mitigation and distancing policies; 3) process innovations are inherent to distancing and confinement because they imply a confidence of the entrepreneurs in the economic rescue of the government; 4) the parties involved achieve resilience once they have agreed on partnership and collaboration mechanisms; 5) governance is appreciated when entrepreneurs and governments follow a co-management strategy.

Studies have proposed instruments to measure relationships between categories, variables, and indicators[35].The digital entrepreneurship inventory measures the relationship between digital promotion policies and proposals for intersectoral collaboration through

data mining[36]. The social entrepreneurship scale is responsible for weighing the relationships of trust between the parties involved[37]. The social support questionnaire establishes the relationships between entrepreneurs and family or cooperative investors[38]. Each instrument reports high reliability indices that are interpreted as consistent relationships between the main category with respect to the variables and indicators of local entrepreneurship.

The relationships between categories, variables and indicators are reported as significant[39]. These are the cases of entrepreneurship and opportunism as a distinctive feature of risk scenarios[40]. Furthermore, opportunism is associated with the optimization of resources in uncertain contexts[41]. Instead, process innovation is linked to creativity as a response to situational crises[42]. It is the effectiveness that has only been reported as an effect of confidence[43]. Resilience is a cause and effect of entrepreneurship[44].Governance is concomitant with dissent and co-responsibility in social crises.

4. Modeling of social entrepreneurship

A model is a proposal for measuring categories, variables and indicators[45]. In this way, entrepreneurship is assumed as a category that includes dimensional variables such as resource optimization and process innovation[46]. Both dimensions continue to be variables such as opportunism, efficiency, environmentalism, resilience or governance[47]. Relationship trajectories are created in a model. In the case of entrepreneurship, two routes prevail: One that goes from opportunism to optimization of resources, ending in resilience[48]. Another that goes from trust to efficiency leading to governance[49]. A third route would go from creativity, through process innovation and culminating in co-management agreements.

The modeling of the venture in three axes assumes that the parties: a) do not have access to sufficient information to plan and systematize their responses to the health and economic crisis; b) they aspire to a confidence that allows them to optimize and innovate; c) they are aware of the risks posed by their agreements and co-responsibilities; d) correct their informational and strategic definitions with cooperation; e) decide and execute provisional strategies in the face of the pandemic.

5. Method

A documentary study was carried out with a selection of sources indexed to international repositories: Academia, Copernicus, Dialnet, Dimensions, Ebsco, Frontiers, Google, Latindex, Microsoft, Redalyc, Scielo, scopus, Zenodo and Zotero, considering the publication period of 2019 to 2021 (see Table 1).

Table 1. Descriptive sample

Repository	Entrepreneurship		
	2019	2020	2021
Academia	3	2	4
Copernicus	2	3	3
Dialnet	1	1	5
Dimensions	3	4	4
Ebsco	2	3	5
Frontiers	4	2	4
Google	2	4	3
Latindex	1	3	2
Microsoft	3	2	4
Redalyc	2	1	3
Scielo	1	4	5
Scopus	3	3	3
Zenodo	2	5	2
Zotero	2	4	4

The Systematic Review Inventory was used, which includes the findings related to the dimensions of the undertaking, considering the selected literature and the established publication threshold[50]. Studies that associated entrepreneurship with other variables were discarded, considering that the review only refers to the dimensions of entrepreneurship (see Table 2).

Table 2. Description of the instrument

Code	Author	Age	Dimensions
d1	Tapia et al.,	2021	Opportunism
d2	Stroka & Meyer	2021	Efficacy
d3	Plaza et al.,	2021	Green
d4	Villa et al.,	2021	Corporative
d5	Dewanet al.,	2020	Resiliency

The Delphi technique was used[51]. Expert judges in entrepreneurship rated selected findings, considering 1 for the opportunistic dimension, 2 for the resilient dimension, 3 for the green dimension, 4 for the efficient dimension, 5 for the corporate dimension. In the second phase, the grades were compared with the averages to reconsider or reiterate the evaluation. In the third phase, a reconsideration or reiteration of the initial rating was reflected (see Table 3).

Table 3. Descriptive of the judges

H index	Sex	Age	Income	Area
23	Male	53	18’324.00	Production
24	Female	47	19’321.00	Logistic
21	Male	53	19’435.00	Quality
26	Male	62	25’821.00	HR
35	Female	58	45’792.00	Production
41	Female	55	21’324.00	Logistic
37	Female	41	36’781.00	Logistic
44	Male	67	40’321.00	HR
56	Male	58	53’786.00	HR
42	Male	63	62’891.00	Quality

The data were processed in the package for social sciences version 23, considering the parameters of normal distribution, linearity and homoscedasticity, previous requirements for the analysis of contingencies, correlations and structures[52]. The estimation of the adjustment and residual coefficients was carried out with the software of structural moments version 4.

6. Results

The values of the parameters that measure normality, linearity and homoscedasticity suggest the analysis of contingencies between the category of entrepreneurship with respect to the five dimensions reported in the literature. This means that the relationships between the entrepreneurship category with respect to the dimensions are reflective. This is so because entrepreneurship theory suggests multiple dimensions that are structured as risks intensify. Thus, the literature reports findings that explain the impact of contingent scenarios such as the pandemic on the responses of the parties involved. From this advance, it is possible to analyze the contingent relationships between category and dimensions (see Table 4).

Table 4. Distribution of normality and contingency

	M	SD	KSL	$\chi 2$	df	p
R1			N= 180			
d1	4.63	4.52	5.32	15.21	14	<.05
d2	4.52	4.65	5.31	16.21	15	<.05
d3	4.87	4.70	5.40	17.10	13	<.05
d4	4.92	4.62	5.47	18.51	12	<.05
d5	4.72	4.17	5.32	18.21	14	<.05
R2			N = 140			
d1	4.32	4.53	5.32	10.21	10	>.05
d2	4.90	4.31	5.72	16.32	14	>.05
d3	4.21	4.62	5.42	11.54	13	>.05
d4	4.78	4.41	5.04	15.32	18	>.05
d5	4.53	4.02	5.21	10.32	15	>.05
R3			N = 160			
d1	4.80	4.29	5.46	14.35	14	>.05
d2	4.62	4.37	5.94	18.32	12	>.05
d3	4.41	4.31	5.32	19.21	14	>.05
d4	4.31	4.29	5.48	10.45	16	>.05
d5	4.52	4.21	5.21	13.24	15	>.05

Note: R = Round, d = Dimensions, M = Mean, SD = Standard Deviation, KSL = Kolmogorov Smirnoff Lilliefords,

Once the normal, linear and contingent distributions were established, the correlations between the dimensions were estimated in order to establish a concomitant structure between the category and the dimensions. Such findings suggest that entrepreneurship is associated with the dimensions reported in the literature, as well as its structure centered on the qualification of expert judges (see Table 5).

Table 5. Correlations between dimensions

	d1	d2	d3	d4	d5
d1	1.0	.45*	.53*	.54*	.53*
d2		1.0	.62**	.68**	.38*
d3			1.0	.63**	.65*
d4				1.0	.58***
d5					1.0

Note: d1 = Opportunism, d2 = Efficacy, d3 = Green, d4 = Corporative, d5 = Resilience. * p < .01; ** p < .001; *** p < .0001

The correlations between the dimensions suggested the estimation of a structural equation model (see Figure 1). A structure of axes, trajectories and relationships was found that explain entrepreneurship in risk situations. It means then that entrepreneurship as the axis and central category was associated with its dimensions in situations and risk events such as the pandemic. Thus, the adjustment and residual parameters [x^2 = 14.21 (24 df) p > .05; GFI = .997; CFI = .990; RMSEA = .009]suggest the non-rejection of the null hypothesis of reflection of entrepreneurship in the five dimensions reported by the literature.

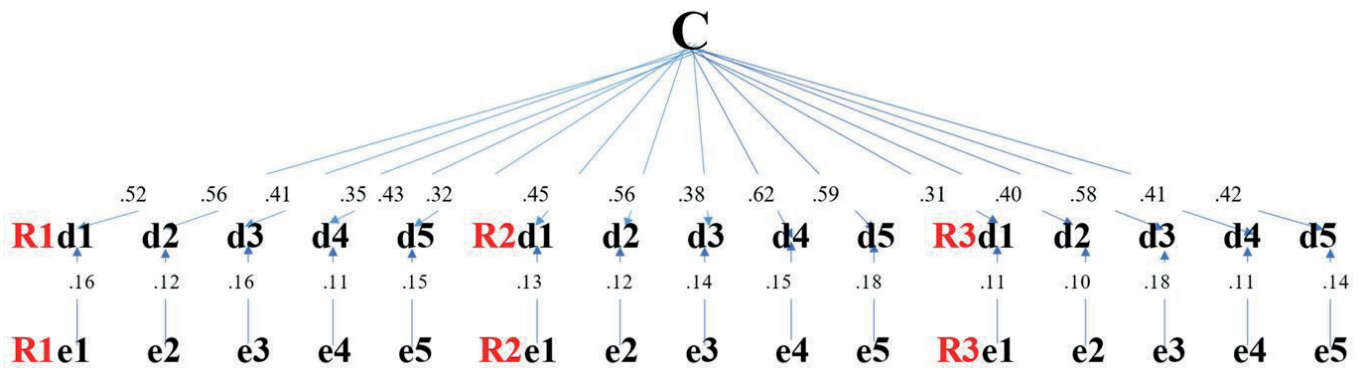

Figure 1. Structural equation modelling

Source: Elaborated with data study. R = Round, d = Dimensions, C = Category, e = Error measurement

7. Discussion

The contribution of this work was the review of entrepreneurship as an emerging phenomenon in the pandemic. The relationship between rulers and ruled in health and economic crisis was consulted in the literature reports published from 2019 to 2021. A structure of five preponderant factors was found that explained the relationship between the parties involved.

In relation to the theory of social entrepreneurship, which explains that government and entrepreneurs aspire to generate trust and agreements, the present work suggests that the literature considers five axes of analysis related to opportunism, efficacy, environmentalism, resilience and governance. It means then that the sources consulted disseminate a multifactorial undertaking in which it is possible to investigate diversified decisions and strategies in the face of risk events.

Regarding the studies of entrepreneurship where the relationships between categories, variables and indicators are not consolidated, the present work corroborates this trend. The established structure suggests that it is possible to analyze relationship trajectories from findings that may be related, but not established as associations that allow explaining the diversification of entrepreneurship.

Regarding the modeling of entrepreneurship where three routes are outlined that go from opportunism, creativity and trust to co-responsibility, resilience and co-management, the present work suggests that such paths can be complementary, although it is also possible that they are exclusive to as the pandemic intensifies. Study lines related to the modeling of the categories, dimensions, variables, factors and indicators will allow anticipating a systematic review. Future investigations concerning the axes of trajectories will predict the diffusion of findings.

8. Conclusion

In the Covid-19 era, the mitigation and containment policies of the pandemic were implemented as a restriction to agglomerations, distancing and social confinement. In this scenario, the literature on entrepreneurship reports five dimensions related to opportunism, effectiveness, environmentalism, governance and resilience. In this sense, political and social actors, public and private sectors converge in an entrepreneurial response to the health and economic crisis. The present work corroborated this structure, its dimensions and findings. Lines of study related to the impact of entrepreneurship on community, local or municipal resilience will allow anticipating responses to risk, contingency and crisis scenarios.

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