

Key Fail Factors as Innovation Strategies To Be Avoided: A Comparative Study between Mexican and American Social Impact Startup in COVID-19 Pandemic Times

Factores clave de fracaso como estrategias de innovación a evitar: un estudio comparativo entre *startups* de impacto social mexicanas y estadounidenses en tiempos de la pandemia de COVID-19

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ABSTRACT

Purpose. This study determines the different combinations and levels of key failure factors (KFF) as the opposite of key success factors (KSF), between Mexican and American social impact startups (SIS) in COVID-19 pandemic times, as the source of innovation strategies.

Methodology. It is based on the KSF-SIS framework, an academic and empirical scale previously proved in 2021. The survey data was gathered from 100 Mexican/300 American CEOs-SIS in Jan-Jun-2021. Covariance-Based Structural Equation Modeling (CB-SEM) determined the model's reliability/validity to confirm the KSF, while Fuzzy set Qualitative Comparative (fsQCA) was used to get the KFF.

Results. The 6 factors implied in the KSF-SIS framework were considered: Entrepreneur Profile (EPR); Market Knowledge (MKK); Strategic Analysis (STA); Key Performance Indicators (KPI); Business Plan (BPL); and Value Proposition (VPN). The results showed 5 combinations of these factors that produce KFF for Mexican SIS and 2 combinations for American SIS as innovation strategies to be avoided.

Originality. CB-SEM is used as a reliability and validity tool to confirm the KSF framework to achieve several opposite conditions as KFF through fsQCA, determining necessary, sufficiency, coverage, and consistency of such a framework for Mexican/American SIS.

Key words: key success factor, key fail factor, social impact startups, innovation strategy; CBA-SEM; fsQCA.

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RESUMEN

Propósito. Este estudio determina las diferentes combinaciones y niveles de factores clave de falla (KFF) como opuestos a los factores clave de éxito (KSF) entre las *startups* de impacto social (SIS) mexicanas y estadounidenses en tiempos de la pandemia de COVID-19, como fuente de estrategias de innovación.

Metodología. Se basa en el modelo KSF-SIS, una escala académica y empírica probada previamente en 2021. Los datos de la encuesta fueron de cien directores ejecutivos mexicanos y trescientos estadounidenses SIS de enero a junio de 2021. El modelado de ecuaciones estructurales basado en covarianza (CB-SEM) determinó la confiabilidad o validez del modelo para confirmar el KSF, y se utilizó el conjunto comparativo cualitativo difuso (fsQCA) para obtener el KFF.

Resultados. Se consideraron los seis factores implícitos en el marco KSF-SIS, tales como perfil del emprendedor (EPR); conocimiento del mercado (MKK); análisis estratégico (STA); indicadores clave de rendimiento (KPI); plan de negocios (BPL); y propuesta de valor (VPN). Los resultados mostraron cinco combinaciones de dichos factores que producen KFF para el SIS mexicano y dos combinaciones para el SIS estadounidense como estrategias de innovación a evitar.

Originalidad. CB-SEM se utiliza como una herramienta de confiabilidad y validez para confirmar el marco KSF para lograr varias condiciones opuestas, como KFF a través de fsQCA, determinando la necesidad, suficiencia, cobertura y consistencia de dicho marco para el SIS mexicano/estadounidense.

Palabras clave: factor clave de éxito, factor clave de falla, *startups* de impacto social, estrategia de innovación, CBA-SEM, fsQCA.

INTRODUCTION

To face the COVID-19 crisis, government institutions, business chambers, and academic centers have called for innovation initiatives, such as the launching of startups (CEPAL, 2020). However, in Mexico, 75 percent of startups closed their business after their second year of existence, which means that only 25 percent of them remain up-to-date (*El Financiero*, 2016). However, it is not the same for the U.S., considered the leading country in the number of startups created and how they have handled the worst conditions during the COVID-19 pandemic (Minaev, 2021; Djankov & Zhang, 2021). The next normal has triggered and accelerated the shift to the automation and digitization revolution; approximately 39 percent to 58 percent of work worldwide in operationally demanding sectors can be automated using currently demonstrated technologies (McKinsey, 2020a). Surely it is going based on startups (Haltiwanger et al., 2013). Therefore, this research's challenge, usefulness, and originality lie in the proposal of a framework confirmation and the comparison between how startups

among the Mexican/American SIS are handling the innovation strategies analyzed through KSF and KFF.

The Oslo Manual and the Business Model Innovation

The last edition Oslo Manual defines innovation (OECD, 2018: 20): “An innovation is a new or improved product or process (or a combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process).” Frequently, economic crises and ravages are periods of *creative destruction*, source of innovation strategies. The broad concept of innovation embraced by the OECD Innovation Strategy emphasizes the need for a better match between supply-side inputs and the demand side, including the role of markets (OECD, 2010). In this regard, the information on the market impacts of a firm’s innovation strategies is highly relevant to policy (i.e., the organization of innovation activities within the firm including: the development or modification of an innovation strategy; the establishment or reorganization of units within a firm responsible for innovation; and human resource practices to encourage innovation throughout the firm) (OECD, 2018: par. 5.44 and 8.21).

Hence, we adopted the concept of a SIS as a business model innovation that (OECD, 2018: 242) “... relates to changes in a firm’s core business processes as well as in the main products that it sells, currently or in the future” based on one or several sustainable development goals published by United Nations (UN, 2015). Indeed, businesses disturbed by the COVID-19 pandemic were more able to innovate in terms of products and management than those that remained unaffected (Gorzalany-Dziadkowiec, 2021). CEOs agree that innovating the business will be critical because the COVID-19 crisis presents an opportunity that needs to be pursued (McKinsey, 2021).

The Importance of the Startup in Mexico and the U.S.

ASPEN’s report (2017) states that in Mexico, 416 startups were registered, more than half of them aimed to work with social impact interest. Mexico is the country where startup ecosystems are more distributed across its territory, with 32 percent of startups in Mexico City, 10 percent in Guadalajara, and 8 percent in Monterrey (OECD, 2016). According to Statista (2021), in May 2021, there were still 352 working startups, which were aimed at: software data (31 percent), fintech (23 percent); e-commerce (13 percent), leisure (9 percent), health (7 percent), education (4 percent), transport

(4 percent), marketing and sales (4 percent), food technology (3 percent), IoT (2 percent), and energy and environment (1 percent). As Minaev (2021) claimed, the U.S. is the leading country in number of startups (around 63,703); over 69 percent of them can become profitable. Minaev also states that the competition (19 percent) is the greatest challenge when starting a business, among other data. In numbers of startups, the US is followed by India with 8,301 startups, and the UK, with 5,377 startups. The U.S. alone has almost three times the amount of startups than the following 9 countries in the world combined. Unfortunately for Mexico, the COVID-19 pandemic and the next normal ravaged that economic backbone by failing to impede the loss of 12.5 million jobs in Mexico. The country's employed population fell from 55.7 million in March to 45.4 million in Apr 2020; this meant the loss of 2.1 million formal jobs versus 10.4 million informal jobs (El Financiero, 2020). For the U.S., the CRS report (2021) informed that, in Apr 2020, the unemployment rates had reached 14.8 percent, while the labor force participation rate declined to 60.2 percent (a level not seen since the early 1970s). This rise in unemployment was caused by an unprecedented loss of 22.1 million jobs between Jan 2020 and Apr 2020. This deterioration in the U.S. labor market corresponded with various advisory or mandated stay-at-home orders implemented in response to the COVID-19 pandemic as well as other pandemic-related factors affecting U.S. demand (CRS, 2021). However, as stated by Djankov and Zhang (2021), contrary to all thought, only in the U.S. did startups grow from 3.5 million in 2019 to 4.4 million in 2020; a 24 percent increase. The number of startups also increased in United Kingdom, Turkey, and Chile. In the U.S., an estimated 9.1 million small businesses were temporarily or permanently closed, even though it is perceived that small businesses create the majority of jobs in the U.S. and other advanced economies. However, research suggests that the new businesses, startups, not small businesses, are the genesis that creates those jobs (Haltiwanger et al., 2013). Some innovative new SIS have responded quickly and flexibly to the pandemic, which is essential to help many countries in this time. The switch to digital education, work, and health services provided innovations in medical goods and services (OECD, 2020). Additionally, the SIS concept is defined here as a startup that is aimed to solve one or several of the 17 sustainable development goals determined by the United Nations (UN, 2015). Despite all the above, most startups have a common denominator: they usually fail. Hence, this study aims to determine the factors and indicators involved that will create a reliable business model innovation scale, capable of maintaining the successful momentum of the startups that respond quickly to market changes, focus on results, and deliver value to customers (McKinsey, 2020b).

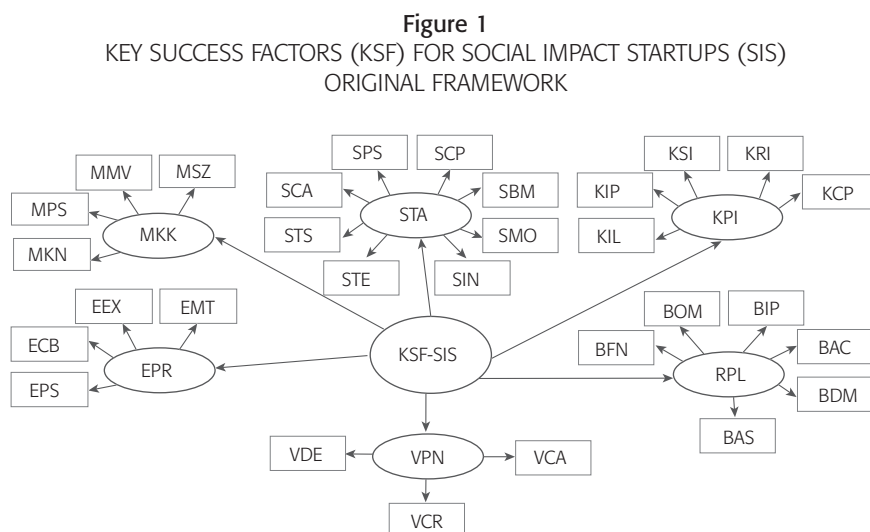
Why Does sis Fail?

More than two-thirds of sis never deliver a positive return to investors. Why do so many end disappointingly? Many people are inclined to attribute the failure to the inadequacies of its founders, in particular, their lack of grit, industry acumen, or leadership ability. However, blaming the founders oversimplifies a complex situation (Eisenmann, 2021). Hence, it is necessary to identify the main reasons for such a problem and propose a conceptual model to solve it. See Table 1.

Table 1 REASONS FOR WHY SIS FAIL	
Reasons	Source
<i>Eleven reasons:</i> Launching; catch 22; good idea bad fellows; false starts; false positives; out of the frying pan; speed trap; help wanted; moonshots and miracles; running on empty; and bouncing back.	Eisenmann (2021)
<i>Twenty reasons:</i> No market need; ran out of cash; not the right team; get outcompeted; prices/cost issues; poor product; need/lack business model; poor marketing; ignore customers; product mis-timed; lose focus; disharmony on team/investors; lack passion; bad location; no financing/investor interest; legal changes; don't use network/ advisors; burnout; failure to pivot.	Kasimov (2017)
Ninety nine reasons:...	Mahout & Lucas (2017)
<i>Ten reasons:</i> a lack of entrepreneurship training; a lack of effort and time planning; strategy issues; a lack of selling skills; a lack of social soft-skills; inadequate, bureaucratic, and corrupt government business supports; poor or inexperienced management; accepting disadvantageous contracts; a lack of clarity in communication to avoid hurting others; and differences in values, ideologies, and interests between founders.	Valencia (2016)
<i>Twelve reasons:</i> lack of funding; wrong market positioning; no-go-to-market-strategy; no focus; no flexibility; no patience or persistence; wrong or incomplete leadership; unmotivated team; no mentors or advisors; no revenue model; less capital then required; and bad luck or timing.	Deeb (2013)
<i>Eleven reasons:</i> poor product-market fit; bad product; the missing entrepreneur; investing in sales and marketing too early; losing money on sales; invisible startups; failing to communicate; not getting started; failing to execute; pitches that fail; managing liquidity.	Feinleib (2012)
<i>Three main reasons:</i> allure of a good plan, a solid strategy, and thorough market research,etc.	Ries (2011)
<i>Five reasons:</i> market problems; business model failure; poor management team; running out of cash; product problems	Skok (2010)
Source: Several authors with own adaptation.	

The Key Success Factors (KSF) for Social Impact Startup (SIS) Framework in covid-19 Times

The lockdown measures as a response to the spread of the new coronavirus threaten the existence of many innovative startups. While several of them are successfully leveraging their available resources as a first response to the crisis, their growth and innovation potential are at risk (Kuckertz et al., 2020). Hence, in this analysis we propose the scale based on Mejía-Trejo's framework (for more details, see 2021) to measure the resources as KSF-SIS involving 6 underlying factors: Entrepreneur Profile (EPR); Market Knowledge (MKK); Strategic Analysis (STA); Key Performance Indicators (KPI); Business Plan (BPL); and Value Proposition (VPN). This is a reflective framework designed with 30 independent variables, and 30 items displayed in Figure 1.



Notes: KSF-SIS: Key Success Factors for Social Impact Startups; EPR: Entrepreneur Profile; MKK: Market Knowledge; STA: Strategic Analysis; KPI: Key Performance Indicators; BPL: Business Plan; VPN: Value Proposition; EPS: Entrepreneur personality; ECB: Entrepreneur category of business; EEM: Entrepreneur experience; EMT: Entrepreneur motivation; MKN: Market needs; MPS: Product/Service attributes; MMV: Market management by values; MSZ: Market size; SCA: Competitors Analysis; SPS: Product/ Service Design; SCP: Cost/Price; SBM: Business model; STS: Type of Society; STE: Technology Strategy; SIN: Innovation Strategy; SMO: Managerial Orientation; KIL: Product/Service Innovativeness with Value Added Level; KIP: Implementing Performance of Business Plan; KSI: Social Impact by Products/Services; KRI: Satisfaction of Product/Service Level; KCP: Customer Profitability; BFN: Financial Plan; BOM: Operation Maintenance & Emergency Plan; BIP: Intellectual Property Plan; BAC: Accountability Plan; BDM: Digital Marketing Plan; BAS: Aftersales Plan; VDE: Value Delivery; VCR: Value Creation; VCA: Value Capture.

Source: Mejía-Trejo (2021).

Finally, the KSF in SIS scale design is based on the definition of constructs and sources used in the literature (Mejía-Trejo, 2019c). The framework is shown in Appendix. The concept of KSF in SIS here is about their survival based on Aspen (2017) report from Jan-Jun 2021. In the concept of Key Fail Factors (KFF), all the factors involved as KSF are just the opposite of such a framework.

Describing the Final Conceptual Model Proposal and Research Hypotheses

The six constructs' set produces the main reason for our interest, the key success factors for social impact startups (KSF). The six constructs are the causal conditions (independent factors) aligned to predict the outcome. These six sets of causal conditions factors are entrepreneur profile (EPR), market knowledge (MKK), strategic analysis (STA), business performance indicators (BPI), business plan (BPL), and Value Proposition (VPN). Hence, we propose the following hypotheses to highlight the differences between Mexican and American SIS. See Table 2.

Table 2 HYPOTHESES
Hypotheses
H1: "Higher KSF higher EPR. There are highly positive effects of KSF on EPR for Mexican SIS"
H1': "Higher KSF higher EPR. There are highly positive effects of KSF on EPR for American SIS"
H2: "Higher KSF higher MKK. There are highly positive effects of KSF on MKK for Mexican SIS"
H2': "Higher KSF higher MKK. There are highly positive effects of KSF on MKK for American SIS"
H3: "Higher KSF higher STA. There are highly positive effects of KSF on STA for Mexican SIS"
H3': "Higher KSF higher STA. There are highly positive effects of KSF on STA for American SIS"
H4: "Higher KSF higher KPI. There are highly positive effects of KSF on KPI for Mexican SIS"
H4': "Higher KSF higher KPI. There are highly positive effects of KSF on KPI for American SIS"
H5: "Higher KSF higher BPL. There are highly positive effects of KSF on BPL for Mexican SIS"
H5': "Higher KSF higher BPL. There are highly positive effects of KSF on BPL for American SIS"
H6: "Higher KSF higher VPN. There are highly positive effects of KSF on VPN for Mexican SIS"
H6': "Higher KSF higher VPN. There are highly positive effects of KSF on VPN for American SIS"
Source: Developed by the authors.

RESEARCH METHOD

We summarized the process in the Table 3.

Table 3 RESEARCH METHOD	
The Research Method	
Stage 1. The data about sis for Mexico was collected using the database from Instituto Nacional de Estadística y Geografía (INEGI, 2021) on their website and Aspen (2017) registers. The data on sis from the US was collected from the Business Information Statistics (BFS, 2020) website. Afterward, we sent emails through google forms to 620 email addresses.	
Stage 2. The Covariance-Based Structural Equation Modeling (CB-SEM) was utilized for the 100/300 Mexican/American sis through EQS6.2 software to prove the model's validity. CB-SEM specifies a "measurement model", which describes how the measured variables "reflect certain latent variables." Once these measurement models are considered satisfactory, researchers can explore path models (called "structural models") that link "latent variables" (Thompson, 2004). This CB-SEM stage demonstrates the reliability and validity of the key success factor (ksf) for both, Mexican and American social impact startups (sis) model.	
Stage 3. The fuzzy set Qualitative Comparative Analysis (fsQCA 3.0) used as a complementary statistical technique to extract and analyze several patterns solutions. This fsQCA stage aims to determine how the six factors are combined in several paths to get the same outcome: the negated key success factor ($\sim$ksf) for social impact startups (sis) and how to explain such combinations as business strategies. Here, the research was split into two parts, Mexican and American sis. The fsQCA process is shown as follows:	
Necessary and sufficiency condition analyses. The fsQCA combines qualitative comparative analysis (QCA) with fuzzy sets and logic principles (Ragin, 2008). We applied the fsQCA 3.0 program, which recognizes the pattern of elements that led to the selected result (Mejía-Trejo, 2020). Since this technique produces multiple configurations (solutions), it contains "sufficient" and "necessary" conditions (may exist or not in the solution) that can be marked by their existence, nonexistence, or "irrelevant" conditions. A threshold of 0.9 is required for a condition to be "necessary" (Schneider and Wagemann, 2010). The "sufficiency" in a condition is based on the "principle of causal asymmetry," which establishes that "the presence of a factor may lead to a certain unique outcome, but the absence or negation of the same factor may not lead to the absence or negation of that outcome" (Ragin, 2008).	
Calibrating the raw data. This means all raw data transformation of factors into fuzzy sets (values ranging from 0 to 1) (Ragin, 2008). Data calibration can be "direct" (to calibrate all data values selected by researchers, as anchor values, three qualitative thresholds) or "indirect" (researchers decide to determine the factors to be calibrated after qualitative evaluation). The qualitative thresholds in the direct method correspond to "full, non-full, and intermediate membership." (Ragin, 2008).	

Table 3
RESEARCH METHOD
(continuation)

Generating solutions through the truth table. Once the calibration is successful, the fsQCA activates the fuzzy algorithm to generate a solution that is a conditions combination supported on a high quantity of cases. The directive to be consistent is “the combination leads to the outcome.” Hence, a “truth-table” of rows is generated, where k represents the number of outcome predictors. Each row represents the observations quantity in each combination. The fsQCA uses the threshold of 0.5 to identify the combinations that are acceptably supported by the cases. The “consistency” is an exhibit of each combination in truth-table. It refers to the correspondence level among the sample cases sharing a configuration or a causal condition in displaying an outcome-focused (Ragin, 2008; Fiss, 2011).

Stage 4. The scale was sent by email to 620 addresses representing the total of sis. According to the results, 100/300 Mexican/American sis were obtained, and by frequency analysis, most of the Mexican participants were >40 years old (68%), the CEO was male/female (50%/50%), single/couple (85%/15%), college/undergraduate/postgraduate (8%/42%/50%). The American counterparts were >30 years old (85%), the CEO was male/female (50%/50%), single/couple (90%/10%), college/undergraduate/postgraduate (70%/30%).

Source: Several authors with own adaptation.

RESULTS

The results are based on CB-SEM and fsQCA techniques as follows:

The CB-SEM Analysis Technique

The measurement framework’s validity used the CB-SEM with EQS 6.2 software and applied the maximum likelihood method (Byrne, 2006; Mejía-Trejo, 2020) for the 100/300 Mexican/ American sis in this research. To prove the measurement scale’s reliability, for each factor, we computed the Cronbach’s Alpha and Composite Reliability Index (CRI) (Bagozzi and Yi, 1988) with results that exceeded the recommended value of 0.7 for both. This means evidence to prove the scale’s internal reliability (Nunnally and Bernstein, 1994; Hair et al., 2010). Average Variance Extracted (AVE) is represented from the fundamental construct and the observed variables (Fornell and Larcker, 1981).

According to the Mexican/ American sis, our arbitrary values to accept/ reject our hypotheses are stated in a standardized path coefficient (β) ≥ 0.7 . CB-SEM results are shown in Table 4 for the Mexican case and Table 5 for the American case.

Table 4												
CBA-SEM RESULTS CONVERGENT AND DISCRIMINANT VALIDITY OF LATENT VARIABLES IN THE THEORETICAL MODEL AS KSF FOR MEXICAN SIS AS SOURCE OF INNOVATION STRATEGIES TO BE ANALYZED												
Mexican sis												
Factor	Theoretical Model Convergent Validity					Theoretical Model Discriminant Validity						
	Variable	Loading Factor (>0.6)	Robust t Value	Cronbach's Alpha (>=0.7)	CRI (>=0.7)	AVE (>=0.5)	EPR	MKK	STA	KPI	BPL	VPN
EPR	1. EPS	0.767***	1.000 a									
	2. ECB	0.689***	12.384	0.700	0.885	0.678	0.823	-	-	-	-	-
	3. EEX	0.695***	17.326									
	4. EMT	0.608***	18.213									
MKK	5. MKN	0.650***	1.000 a									
	6. MPS	0.687***	19.687	0.718	0.722	0.650	0.670	0.806	-	-	-	-
	7. MMV	0.700***	27.418									
	8. MSZ	0.798***	28.567									
STA	9. SCA	0.895***	1.000a									
	10. SPS	0.881***	26.692									
	11. SCP	0.867***	35.762	0.821	0.800	0.856	0.659	0.701	0.925	-	-	-
	12. SSM	0.850***	23.897									
	13. SMO	0.800***	12.672									
	14. SIN	0.769***	28.328									

Table 4 CBA-SEM RESULTS CONVERGENT AND DISCRIMINANT VALIDITY OF LATENT VARIABLES IN THE THEORETICAL MODEL AS KSF FOR MEXICAN SIS AS SOURCE OF INNOVATION STRATEGIES TO BE ANALYZED (continuation)				
KSF>KPI	0.712***	23.682	H4: "Higher KSF higher KPI. There are highly positive effects of KSF on KPI"	Accepted
KSF>BPL	0.768***	28.176	H5: "Higher KSF higher BPL. There are highly positive effects of KSF on BPL"	Accepted
KSF>VPN	0.620***	19.651	H6: "Higher KSF higher VPN. There are highly positive effects of KSF on VPN"	Rejected
S-B= 614.322; df=299; $p<0.000$; NFI=0.822; NNFI=0.854; CFI=0.856; RMSEA=0.079; a.- Parameters constrained to the value in the identification process. ***= $p < 0.001$. In Theoretical Model Discriminant Validity, the diagonal represents the square root of the average variance extracted (AVE) while above the diagonal presents the variance (the correlation squared). Notes: cri: Composite Reliability Index; AVE: Average Variance Extracted. Source: Own data using EQS 6.2.				

Table 5 CBA-SEM RESULTS CONVERGENT AND DISCRIMINANT VALIDITY OF LATENT VARIABLES IN THE THEORETICAL MODEL AS KSF FOR AMERICAN SIS AS SOURCE OF INNOVATION STRATEGIES TO BE ANALYZED										
American sis										
Factor	Theoretical Model Convergent Validity					Theoretical Model Discriminant Validity				
	Variable	Loading Factor (>0.6)	Robust t Value	Cronbach's Alpha (>=0.7)	CRI (>=0.7)	AVE (>=0.5)	EPR	MKK	STA	VPN
EPR	1. EPS	0.906***	1.000 a							
	2. ECB	0.881***	11.685	0.896	0.855	0.818	0.904	-	-	-
	3. EEX	0.799***	19.235							
	4. EMT	0.805***	15.027							
MKK	5. MKN	0.868***	1.000 a							
	6. MPS	0.712***	16.555	0.848	0.812	0.727	0.770	0.852	-	-
	7. MMV	0.751***	17.308							
	8. MSZ	0.651***	18.756							
STA	9. SCA	0.725***	1.000 a							
	10. SPS	0.796***	16.589							
	11. SCP	0.826***	15.763	0.799	0.789	0.799	0.659	0.781	0.893	-
	12. SBM	0.798***	13.777							
	13. SMO	0.750***	22.654							
	14. SIN	0.869***	18.319							

Table 5 CBA-SEM RESULTS CONVERGENT AND DISCRIMINANT VALIDITY OF LATENT VARIABLES IN THE THEORETICAL MODEL AS KSF FOR AMERICAN SIS AS SOURCE OF INNOVATION STRATEGIES TO BE ANALYZED (continuation)										
	15. STE	0.710***	14.298							
	16. STS	0.778***	12.119							
KPI	17. KIL	0.784***	1.000 a							
	18. KIP	0.871***	13.902							
	19. KSI	0.726***	15.444	0.765	0.802	0.718	0.500	0.526	0.789	0.847
	20. KRI	0.749***	13.429							-
	21. KCP	0.864***	14.564							
BPL	22. BFN	0.720***	1.000 a							
	23. BOM	0.802***	13.345							
	24. BIP	0.875***	14.321							
	25. BAC	0.850***	15.321	0.875	0.788	0.780	0.654	0.743	0.678	0.697
	26. BDM	0.732***	13.345							0.883
VPN	27. BAS	0.799***	16.543							
	28. VDE	0.950***	12.347							
	29. VCR	0.900***	13.876	0.758	0.700	0.820	0.720	0.650	0.754	0.374
	30. VCA	0.800***	21.326							0.905

Structural Relation	Standardized Path Coefficient β	Robust t Value	Hypotheses	Results
KSF $\rightarrow$ EPR	0.881***	12.590	H1': "Higher KSF higher EPR. There are highly positive effects of KSF on EPR"	Accepted
KSF $\rightarrow$ MKK	0.856***	13.898	H2': "Higher KSF higher MKK. There are highly positive effects of KSF on MKK"	Accepted
KSF $\rightarrow$ STA	0.809***	14.470	H3': "Higher KSF higher STA. There are highly positive effects of KSF on STA"	Accepted
KSF $\rightarrow$ KPI	0.758***	13.912	H4': "Higher KSF higher KPI. There are highly positive effects of KSF on KPI"	Accepted
KSF $\rightarrow$ BPL	0.823***	17.263	H5': "Higher KSF higher BPL. There are highly positive effects of KSF on BPL"	Accepted
KSF $\rightarrow$ VPN	0.898***	18.761	H6': "Higher KSF higher VPN. There are highly positive effects of KSF on VPN"	Accepted
S-B= 625.322; df=298; $p < 0.000$; NFI=0.801; NNFI=0.802; CFI=0.811; RMSEA=0.078; a.- Parameters constrained to the value in the identification process. ***= $p < 0.001$. In Theoretical Model Discriminant Validity, the diagonal represents the square root of the average variance extracted (AVE) while above the diagonal presents the variance (the correlation squared). Notes: cri: Composite Reliability Index; AVE: Average Variance Extracted. Source: Own data using EQS 6.2.				

Table 6											
ANALYSIS OF "SUFFICIENCY" CONDITIONS, COMPLEX CONFIGURATIONS INDICATING HIGH ~KSF OR KFF (KEY FAIL FACTORS) FOR MEXICAN AND AMERICAN SIS TO BE AVOIDED											
Mexican sis											
Solutions /Conditions	~KSF≡KFF					Raw Coverage (0.25 to 0.65= informative)		Unique Coverage (>0.01)	Consistency (>0.75)		
	EPR	MKK	STA	KPI	BPL	VPN					
1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	0.042861	0.975461		
2	⊗	⊗	●	⊗	⊗	⊗	⊗	0.030172	0.985544		
3	●	●	⊗	●	⊗	⊗	⊗	0.028734	0.950813		
4	◇	●	◇	⊗	⊗	⊗	●	0.021196	0.921233		
5	●	⊗	●	⊗	⊗	⊗		0.022541	0.908767		
Overall Solution Coverage						0.925					
Overall Solution Consistency (>0.75)						0.897					
American sis											
Solutions /Conditions	~KSF≡KFF					Raw Coverage (0.25 to 0.65= informative)		Unique Coverage (>0.01)	Consistency (>0.75)		
	EPR	MKK	STA	KPI	BPL	VPN					
1	⊗	●	⊗	⊗	●	⊗	⊗	0.042861	0.975461		
2	●	●	⊗	⊗	●	⊗	⊗	0.030172	0.985544		
3		●		●				0.009873	0.6516781		
4	●	●	◇				●	0.008711	0.522875		
5	●	⊗			⊗			0.027721	0.417195		

Overall Solution Coverage	0.988
Overall Solution Consistency (≥ 0.75)	0.890
Notes: ◇ Presence of a condition or "core conditions." ● Presence of a condition as "peripheral conditions." ⊗ Negation of a condition (Absence) or "peripheral conditions." Blank spaces indicate no matter what level of presence conditions.	
Source: Own data using fsQCA 3.0.	

However, traditional statistical methods (such as CB-SEM and Multiple Regression Analysis) are intrinsically limited in explaining the effects of complex interaction (of three or more contributing factors) (Ragin, 2008). The fsQCA provides suitable methods to adapt to the complex complementary and nonlinear relationships between structures (Ganter and Hecker, 2014; Woodside, 2013). Hence, we have:

H7: "There is no single best combination, considered as fail success factors, that inhibit strategies business improvement for the next normal."

The fsQCA Findings

The necessary and sufficiency conditions analyses based on fsQCA3.0 software show findings according to the CEOs' configurations for negated KSF (key success factors) for SIS. See Table 6.

For Mexican SIS, we obtained 5 useful patterns with the same outcome, the key fail factors (KFF) or negation of key success factors ($\sim$ KSF) given the high values of raw coverage, unique coverage, and consistency, shown as follows:

Solution 1: [negated EPR* negated MKK* negated STA* negated KPI* negated BPL* negated VPN] +

Solution 2: [negated EPR* negated MKK* low/medium STA* negated KPI* negated BPL* negated VPN] +

Solution 3: [low/medium EPR* low/medium MKK* negated STA*KPI* negated BPL* negated VPN] +

Solution 4: [high EPR* low/medium MKK* high STA* negated KPI* negated BPL* low/medium VPN]+

Solution 5: [low/medium EPR* negated MKK*STA* negated KPI* negated BPL]

$\rightarrow \sim$ KSF=KFF.....(Eq. 1)

These equations are strongly recommended to avoid, because these combinations are key fail factors (KFF) in social impact startup (SIS). For American SIS, we obtained 2 useful patterns with the same outcome, the key fail factors (KFF) or negation of key success factors ($\sim$ KSF). Because of the low values of raw coverage, unique coverage, and consistency, solutions 3,4, and 5 were discarded, shown as follows:

Solution 1: [negated EPR* low/medium MKK* negated STA* negated KPI* low/medium BPL* negated VPN] +

Solution 2: [low/medium EPR* low/medium MKK* low/medium STA* negated KPI*BPL* negated VPN]

→~KSF=KFF.....(Eq. 2)

These equations are strongly recommended to avoid, because these combinations are key fail factors (KFF) in social impact startup (sis).

DISCUSSION

This paper contributes to the knowledge revealing the underlying variables through the key success factor (KSF) and its negation (~KSF) to get the key fail factors (KFF) for the sis model, which was empirically proved in several stages (Mejía-Trejo, 2021). See Table 7.

Table 7 STAGES IMPLIED	
Stages	
Stage 1.	Implied a previous qualitative/quantitative study based on a literature review involving consistent research to get the key success factors (KSF) for sis framework (Mejía-Trejo, 2021) involving 6 factors EPR, MKK, STA, KPI, BPL, and VPN (see Figure 1) 30 variables, and 30 indicators with a final design scale (see Appendix).
Stage 2.	The survey data was applied to 100/300 Mexican/American social impact startups (sis), CEOs as survivors during the COVID-19 pandemic from Jan-2021 to Jun-2021 via google forms.
Stage 3.	The CB-SEM (EQS 6.2 software) analysis probes the model's reliability and convergent/discriminant validity for 100/300 Mexican/American social impact startups (sis).
Stage 4.	The fsQCA (fsQCA 3.0 software) is used for analysis to determine several combinations of factors to get the same outcome: the inverse of key success factors (~KSF). In other words, the key fail factors (KFF) for analyses comparison and contrast between the 100/300 Mexican/American social impact startups (sis).
Source: Developed by the authors.	

Hence, we proceed to describe the factors based on the CB-SEM relevant loading factors >0.6*** for the 100/300 Mexican/American sis cases. The CBA-SEM loading factor results (Table 2/Table 3) highlight the importance of the underlying variables as key success factors (KSF) of sis described in importance order of loading factor shown as follows (see Table 8).

Table 8
MEXICAN AND AMERICAN SIS

For Mexican SIS, strategy analysis (STA, 0.879***), is the more relevant high loading factor, while business plan (BPL, 0.668***), market knowledge (MKK, 0.650***), entrepreneur profile (EPR, 0.608***), key performance indicators (KPI, 0.612***), and value proposition (VPN, 0.600***), have low/medium values of loading factor. The order of the factors, is: [STA*BPL*MKK*EPR*KPI*VPN].....Eq.a

For American SIS, value proposition (VPN, 0.898***), entrepreneur profile (EPR, 0.881***), market knowledge (MKK, 0.856***), business plan (BPL, 0.823***), have high levels of loading factor, while strategy analysis (STA, 0.789***), and key performance indicators (KPI, 0.758***), have medium loading factor. The order of the factors is: [VPN*EPR*MKK*BPL*STA*KPI].....Eq.b

Source: Developed by the authors.

Based on Table 4 and Table 5, the explanation of variable combinations of each factor's comparison as KSF-SIS between Mexican/American SIS variables are displayed in: Table 9 for entrepreneur profile (EPR); Table 10 for market knowledge (MKK); Table 11 for strategic analysis (STA); Table 12 for key performance indicators (KPI); Table 13 for business plan (BPL); and Table 14 value proposition (VPN). All variables involved as a source of innovation strategies.

As we can see for the Mexican case (see Table 4), the H1, H2, and H6 hypotheses are rejected due to the low levels of their standardized path coefficient $\beta < 0.7$ (0.608***, 0.650*** and 0.620 respectively). It is necessary to work on how to improve such path coefficients. Based on the fsQCA, when researchers allow for "equifinality" and "causal complexity" (Ragin, 1988), a common finding is that several different combinations of causal conditions may result in a given outcome. These combinations are, for the outcome, generally understood as alternate causal paths or "recipes". In this sense, we obtained prior "necessary conditions" measurements to proceed to get the "sufficiency conditions" with "coverage-consistency" to get the opposite outcome of the key success factors (~KSF) combination, in other words, the key fail factors (KFF); see Table 6 (Ragin, 2008; Mejía-Trejo, 2020). Hence, we have that H7 is accepted. Hence, we can affirm that *there is no a single best combination, considered as key fail factors, that inhibit strategy business improvement for the next normal*. Therefore, for Mexican SIS and eq.1, we have the final expressions:

Solution 1: [~EPR*~MKK*~STA*~KPI*~BPL*~VPN] (for 99% cases of the Mexican SIS) +

Solution 2: [~EPR*~MKK*STA*~KPI*~BPL*~VPN] (for 89% cases of the Mexican SIS) +

Solution 3: [EPR*MKK*~STA*KPI*~BPL*~VPN] (for 76% cases of the Mexican SIS) +

Solution 4: [EPR*MKK*STA*~KPI*~BPL*VPN]+ (for 55% cases of the Mexican SIS) +

Solution 5: [EPR*~MKK*STA*~KPI*~BPL*No matter level presence of VPN]→~KSF=KFF..(Eq. 1)

Table 9
ENTREPRENEUR PROFILE (EPR) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES
AS SOURCE OF INNOVATION STRATEGIES

Variable	KSF-SIS SEM Scores		Description
	Mexican	American	
EPS	0.767***	0.906***	For Mexican sis, the entrepreneur profile (EPR, 0.608***) factor influences the “entrepreneur personality trait (EPS, 0.767***), willingness to the agreeableness” (Poropat, 2009), as entrepreneur experience (EEX, 0.695***) is based on the “previous experience to start any entrepreneurship faster than others” (Fernández-Guerrero et al., 2018). The “entrepreneur category of business (ECB, 0.689**) is aligned for income and commercial reasons” (UN, 2015). As “entrepreneur motivation (EMT, 0.608***), entrepreneurship’s main motivation is that “the results are more important than processes” (Olugbola, 2017; Fernández-Guerrero et al., 2018).
ECB	0.689***	0.881***	
EEX	0.695***	0.799***	
EMT	0.608***	0.805***	
Loading factor descending order			[EPS*EEX*ECB*EMT]
Factor	SIS-SEM score		Conclusion
	Mexican	American	
EPR	0.608***	0.881***	In comparing Mexican sis and American sis, the loading factors are noticeably lesser for Mexican sis. Also, there is a difference in the order of priorities. The Mexican sis are aimed to attend the agreeableness* with previous experience to start any entrepreneurship faster than others* with the alignment for income and commercial reasons* with the results are more important than processes. The American sis have another perspective because they are aimed to a willingness to the extraversion* aligned for social proposes with sustainable development* taking an advantage based on opportunity* with sustainable development. Thereby, Mexican and American sis show different reasons and loading factors as KFS for the development of the entrepreneur profile (EPR).
Source: Developed by the authors.			

Table 10
MARKET KNOWLEDGE (MKK) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES
AS SOURCE OF INNOVATION STRATEGIES

TABLE 10 MARKET KNOWLEDGE (MKK) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES AS SOURCE OF INNOVATION STRATEGIES			
Variable	KSF-SIS SEM scores		Description
	Mexican	American	
MKN	0.650***	0.868***	For Mexican sis, the <i>Market Knowledge</i> (mkk, 0.650***) factor influences to ensure that all the customer's needs are met, they permanently calculate the <i>market size</i> (msz, 0.798***) by <i>volume</i> (Balanko-Dickson, 2007; brw, 2016; Okrah and Agbozo, 2018). This influence is followed for <i>market management</i> by values (mmv, 0.700) with value-based innovation surveillance based on <i>ceos/Stakeholders</i> (Mejia-Trejo and Rodriguez-Bravo, 2019). Regarding the <i>product/service attributes</i> (mps, 0.712***), they monitor the <i>right attributes</i> into their product/service to satisfy consumers' needs exceeding their expectations. They are hearing the <i>voice of the customer</i> based on value proposition (Balanko-Dickson, 2007; Ostenwalder and Pigneur, 2010). This behavior leads to <i>market management</i> by values (mmv, 0.751***) with value-based innovation surveillance based on <i>business model innovation</i> (Mejia-Trejo and Rodriguez-Bravo, 2019). Finally, to ensure that all the customer's needs are met, they permanently calculate the market size by <i>Value</i> (msz, 0.651***) (Balanko-Dickson, 2007; brw, 2016; Okrah and Agbozo, 2018).
MPS	0.687***	0.712***	
MMV	0.700***	0.751***	
MSZ	0.798***	0.651***	
Loading factor descending order			[MKN*mps*MMV*MKN] [MSZ*mps*MMV*MSZ]
Factor	SIS-SEM Score		Conclusion
	Mexican	American	
MKK	0.650***	0.856***	In comparing Mexican sis and American sis, the loading factors are noticeably lesser for Mexican sis. Also, there is a difference in the order of priorities. The Mexican sis are aimed to attend the <i>Volume* ceo/Stakeholders* right attributes into the product-services* diversified market</i> . In the American sis, the order and kind of priorities are very different, as they are focused on the <i>segmented market* systematically observe and evaluate the needs of our customers* with innovation surveillance of their business model innovation* with market size based on Value</i> . Thereby, Mexican and American sis show different reasons and loading factors as KSF for the development of market knowledge (mkk).
Source: Developed by the authors.			

Table 11 STRATEGIC ANALYSIS (STA) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES AS SOURCE OF INNOVATION STRATEGIES			
Variable	KSF-SIS SEM scores		Description
	Mexican	American	
SCA	0.895***	0.725***	For Mexican <i>sís</i>, the <i>strategic analysis (sta)</i> factor that influences the variable competitor's analysis (<i>sca</i>, 0.895***) is based on the <i>ceos of sis</i> who are permanently analyzing the competitors through the <i>"abilities to observe and evaluate the needs of our customers"</i> (Balanko-Dickson, 2007; Mejía-Trejo, 2019). Another essential variable around the factor is <i>product/service design (sps, 0.881***)</i>, which analyzes how to evolve the products/services design with the question: <i>"products/services aimed to get rational benefits to the customer?"</i> (Balanko-Dickson, 2007; Kotler et al., 2017; Mejía-Trejo 2019c). The next important variable influenced is the <i>Cost/Price (scr, 0.867***)</i>, with <i>"studies to fix prices for product-quality leadership and studies to determine costs computing total: cost of operation"</i> with more tendency to <i>"the permanent analysis of competitors' costs over prices to a permanent review to keep enough earnings by incomes"</i> (Kotler et al., 2017). The following influenced variable is the business model (<i>sbm, 0.850***</i>). For American <i>sís</i>, the <i>strategic analysis (sta)</i> factor that influences the variable <i>Cost/Price (scr, 0.826***)</i> is based on <i>"studies to fix prices for maximum market share and studies to determine costs computing total customer retention rate"</i> with more tendency to <i>"the permanent analysis of competitors' costs over prices to keep them balanced and competitive"</i> (Kotler et al., 2017). The <i>innovation strategy (sis, 0.869***)</i> is promoted by <i>"people's knowledge and initiatives"</i> (Ibarra et al., 2020). The next variable with influence is the <i>business model (sbm, 0.798***)</i>. This variable pinpoints where the main proposal makes more and better products and services based on the idea: to <i>"produce more benefits increasing the life quality to the individuals and the society based on sustainable tenets"</i> (Balanko-Dickson, 2007; Dessyana and Ryanti, 2017; Ostenwalder and Pigneur, 2010). Another essential variable is <i>product/service design (sps, 0.796***)</i>, which analyzes how to evolve the products/services design <i>"with enough correspondence according to the attributes required to market needs"</i> (Balanko-Dickson, 2007; Kotler et al., 2017; Mejía-Trejo 2019c).

Table 11
STRATEGIC ANALYSIS (STA) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES
AS SOURCE OF INNOVATION STRATEGIES
 (continuation)

SPS	0.881***	0.796***	This variable pinpoints where the main proposal makes more and better products and services based on: <i>"more incomes and earnings to the stakeholders"</i> (Balanko-Dickson, 2007; Dessyana and Riyanti, 2017; Osterwalder and Pigneur, 2010). The next variable influenced is the <i>managerial orientation</i> (SMO, 0.800***) which is still based on <i>"the short term rather than the long term"</i> (Ibarra et al., 2020). The next variable influenced by the factor is <i>innovation strategy</i> (SIN, 0.769***) promoted by <i>"new concepts to test through prototypes and pilot tests before financial development"</i> (Ibarra et al., 2020). The following variable influenced by the factor is <i>"technology strategy</i> (STE, 0.610 ***) based on <i>our competitors' technologies"</i> (Ibarra et al., 2020). The last variable influenced by the factor is the <i>type of society</i> (STS, 0.678***), where they prefer to undertake entrepreneurship with more willingness to be <i>"a hybrid social enterprise: More than 50% of your income comes from the market"</i> (Fernández-Guerrero et al., 2018).	The following variable is type of <i>society</i> (STS, 0.778***), in which they prefer to undertake entrepreneurship with more willingness to be a <i>"for-profit social enterprise: from 50% to 67% of its financing derives from its resources"</i> (Fernández-Guerrero et al., 2018). The competitors' analysis (SCA, 0.725***) is based on the CEOs of SIS who are permanently analyzing the competitors <i>"through the development of abilities to identify faster the customer needs"</i> (Balanko-Dickson, 2007; Mejía-Trejo, 2019). The <i>managerial orientation</i> (SMO, 0.750***) is based on <i>"low-risk projects rather than projects with greater potential, which entailed higher risks"</i> (Ibarra et al., 2020). The variable <i>technology strategy</i> (STE, 0.710 ***) is based on using <i>"different sources of information to identify opportunities related to new products/services and technologies"</i> (Ibarra et al., 2020).
SCP	0.867***	0.826***		
SBM	0.850***	0.798***		
SMO	0.800***	0.750***		
SIN	0.769***	0.869***		
STE	0.750***	0.710***		
STS	0.720***	0.778***		
Loading factor descending order			$[SCA * SPS * SCP * SBM * SMO * SIN * STE * STS]$	$[SCP * SIS * SBM * SPS * STS * SCA * SMO * STE]$

Factor	SIS-SEM Score		Conclusion
	Mexican	American	
STA	0.701**	0.809**	In comparing Mexican sis and American sis, the loading factors are almost similar. However, there are different orders of priorities. The Mexican sis are aimed to attend the abilities to observe and evaluate the needs of our customers/making questions about their products/services: products/services aimed to get rational benefits to the customer?/with studies to fix prices for: Product-quality leadership with studies to determine costs computing total: cost of operation with more tendency to permanent analysis of competitors' costs over prices to a permanent review to keep enough earnings by incomes/ with an attempt to make more incomes and earnings to the stakeholders/with strategies aimed to the short term rather than the long term/ promoting new concepts to test through prototypes and pilot tests before their final development/ with technology strategy based on following] which technologies our competitors use/with a type of societal preference to be a hybrid social enterprise: More than 5% of your income comes from the market. For the American sis the order and kind of priorities are very different as they are focused on studies to fix prices for: maximum market share with studies to determine costs computing total: customer retention rate with more tendency to a permanent analysis of competitors' costs over prices to keep them balanced and competitive/ promoting people's knowledge and initiatives/ to produce more benefits increasing the life quality of the individuals and the society based on sustainable tenets/ with products/services designed with enough correspondence according to the attributes required to market needs/prefering to undertake entrepreneurship with more willingness to be a for-profit social enterprise: from 50% to 67% of its financing derives from its resource/ analyzing the competitors through the development of abilities to identify faster the customer needs/ with low-risk projects rather than projects with greater potential but that entailed higher risks/and the use of different sources of information to identify opportunities related to new products/services and technologies. Thereby, although the priority to approach the sis factor is almost similar in interest, Mexican and American sis show different reasons and loading factors as KES for the development of strategic analysis (sis).
Source: Developed by the authors.			

Table 12
KEY PERFORMANCE INDICATORS (KPI) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES AS SOURCE OF INNOVATION STRATEGIES

Variable	KSF-SIS SEW Scores		Description
	Mexican	American	
kil	0.780***	0.784***	For Mexican sis, the Key performance (kpi, 0.712***) influences the performance measurement of relationship of products/services innovativeness with value-added level (kil, 0.780***) the design, implement and frequently measure, as key performance indicator of business plan advance according to the norms and schedule (kpi, 0.871***). It is followed by the performance measurement of customer retention (kcp, 0.864***), and the performance measurement of relationship of products/services innovativeness with value-added level (kil, 0.784***), with measurement of customer's satisfaction of products and services level (kri, 0.749***) and finally, the measurement of the social impact of products and services (ksi, 0.730***) with measurement of costumer's satisfaction of products and services level (kri, 0.749***) and finally, the performance measurement of customer profitability (kcp, 0.604***) (Balanko-Dickson, 2007; Mocker et al., 2015; Parmenter, 2010; Kotler et al., 2017).
kpi	0.748***	0.871***	
ksi	0.730***	0.726***	
kri	0.698***	0.749***	
kcp	0.604***	0.864***	
Loading factor descending order	[kil*kpi*ksi*kri*kcp]		[kpi*kcp*kil*kri*ksi]

Factor	SIS-SEM Score		Conclusion
	Mexican	American	
KPI	0.712***	0.758**	In comparison, Mexican sis and American sis' loading factors are almost similar. However, there are different orders of priorities. The Mexican sis are aimed to attend the performance measurement of <i>relationship of products/services innovativeness with value-added level*</i> with <i>design, implement and frequent measure, as key performance indicator, our business plan advances according to the norms and schedule*</i> including the measurement of the social impact of <i>products and services*</i> with measurement of <i>costumer's satisfaction of products and services level*</i> including the performance measurement of <i>customer profitability</i>. For American sis the order and kind of priorities are very different as they are focused on the <i>design, implement and frequent measure, as key performance indicators, our business plan advances according to the norms and schedule*</i> including the measurement of <i>customer retention*</i> with the performance measurement of <i>relationship of products/services innovativeness with value-added level*</i> with measurement of <i>costumer's satisfaction of products and services level*</i> with the measurement of the social impact of <i>products and services</i> both according to the business plan. Thereby, although the priority to approach the KPI factor is almost similar in interest, Mexican and American sis show different reasons and loading factors as KFS for the development of key performance indicators (KPI).
Source: Developed by the authors.			

Table 13 BUSINESS PLAN (BPL) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES AS SOURCE OF INNOVATION STRATEGIES			
Variable	KSF-SIS SEM Scores		Description
	Mexican	American	
BFN	0.898***	0.720***	For Mexican <i>sis</i> , the <i>Business plan</i> (BPL, 0.823***) influences financial plan (BFN, 0.898***) when it is considered by the <i>sis</i> for every new or innovated product/service to <i>calculate the return of investment</i> and the main source to finance new entrepreneurship based on <i>crowdfunding</i> (Balanko-Dickson, 2007; Mejía-Trejo, 2019). However, the <i>intellectual property plan</i> (BIP, 0.840) is aimed to "procure enough financial resources to register them" (Baran and Zhumabaeva, 2018). Regarding the operation maintenance & emergency plan (BOM, 0.808***), the main interest is "to be certified in every vital work issue, get trust in customers, and be more competitive" (Balanko-Dickson, 2007; Hyvonen, 2014; García-Paucar et al., 2015). The <i>after-sales plan</i> (BAS, 0.799***) is essential to "retain the customers in the entrepreneur business plan using social media" (Barkawiet et al., 2020). In the context of the accountability plan (BAC, 0.850***), it is essential to operate an accountability plan, in favor of the <i>sis</i> , to boost innovations keeping permanent surveillance on the <i>evaluation of accountability results</i> (Blaguescu et al., 2005; O'Connor and Mock, 2020). Regarding the operation maintenance & emergency plan (BOM, 0.802***), the "key tenet is to know how to proceed both regularly and in contingency times to be more competitive" (Balanko-Dickson, 2007; Hyvonen, 2014; García-Paucar et al., 2015). The <i>after-sales plan</i> (BAS, 0.799***) is essential to "retain the customers in the entrepreneur business plan using social media" (Barkawiet et al., 2020). Regarding the digital marketing plan (BDM, 0.732***), it is crucial to design a web campaign, driving product features and service mix, boosting <i>satisfaction</i> (Mejía-Trejo, 2017; 2017b; Piñeiro-Otero and Martínez-Roldán, 2017). Finally, a financial plan (BFN, 0.720***), is considered by the <i>sis</i> for every new or innovated product/service to <i>calculate the return of investment</i> , and the main source to finance new entrepreneurship is based more on <i>crowdfunding</i> (Balanko-Dickson, 2007; Mejía-Trejo, 2019).
BOM	0.808***	0.802***	
BIP	0.840***	0.875***	
BAC	0.750***	0.850***	
BDM	0.740***	0.732***	
BAS	0.800***	0.799***	
Loading factor descending order			[BFN* BIP* BOM* BAS* BAC*BDM]
			[BIP* BAC* BOM* BAS* BDM* BFN]

Factor	SIS-SEM Score		Conclusion
	Mexican	American	
BPL	0.819***	0.823***	In comparison, Mexican sis and American sis' loading factors are almost similar. However, there are different orders of priorities. The Mexican sis are aimed to calculate the return of investment, and the main source to finance new entrepreneurship is based more on crowdfunding* the intellectual property plan is aimed to procure enough financial resources to register them* the operation maintenance & emergency plan to be certificated in every vital issue of work getting trust in customers and being more competitive* retaining the customers in the entrepreneur business plan using social media* keeping permanent surveillance on the evaluation of accountability results* to design a web campaign, driving product features and service mix, boosting satisfaction. For American sis, the order and kind of priorities are very different as they are focused on engag[ing] the intellectual property with the resultant innovations* keeping permanent surveillance in the evaluation of accountability results* including operation maintenance & emergency plan based on key tenet to know how to proceed both in regular and in contingency times to be more competitive* retaining the customers based on the entrepreneur business plan using social media* designing a web campaign, driving product features and service mix, boosting satisfaction* to calculate the return of investment and the main source to finance new entrepreneurship is based more on crowdfunding. Thereby, although the priority to approach the KPI factor is almost similar in interest, Mexican and American sis show different reasons and loading factors as KFS. Therefore, although the priority to approach the BPL factor is almost similar in interest, Mexican and American sis show different reasons and loading factors as KFS for the development of business plan (BPL).
Source: Developed by the authors.			

Table 14				
VALUE PROPOSITION (VPN) FACTOR COMPARISON AS KSF-SIS BETWEEN MEXICAN/AMERICAN SIS VARIABLES AS SOURCE OF INNOVATION STRATEGIES				
Variable	KSF-SIS SEM Scores		Description	American
	Mexican	American		
VDE	0.680***	0.930***	For Mexican sis, the <i>Values proposition</i> (VPN, 0.898***), influences the variable <i>value delivery</i> (VDE, 0.680***), where they show, in the last 3 years: <i>the diversification into new markets, targeting completely new customer types or new geographical environments</i> . The following variable is <i>value creation</i> (VCR, 0.670***), where they show, in the last 3 years: <i>re-configured our value chain, allowing us to be more efficient and respond better to all interested parties</i> . The last variable is <i>value capture</i> (VCA, 0.900***), where they show the last 3 years: <i>assessing ways to be profitable</i> (Ibarra et al., 2020).	American
VCR	0.670***	0.950***		
VCA	0.600***	0.900***		
Loading factor descending order			[VDE*VCR*VCA]	[VCR*VDE*VCA]
Factor	SIS-SEM Score		Conclusion	
	Mexican	American	In comparison, Mexican sis and American sis' loading factors are noticeably lesser for Mexican sis. Also, there are different orders of priorities. The Mexican sis are aimed in the last 3 years to attend <i>the diversification into new markets, targeting completely new customer types or new geographical environments*</i> re-configured the value chain, allowing to be more efficient and respond better to all interested parties* with: assessing ways to reduce costs. For American sis, the order and kind of priorities are very different as they are focused in the integration of clients, suppliers, distributors, and other agents in innovative ways in relation to the delivery of products and services* with the introduction of new forms of value for other partners (suppliers or distributors* with assessing ways to be profitable. Thereby, Mexican and American sis show different reasons and loading factors as KFS for the development of values proposition (VPN).	
VPN	0.620***	0.928**		
Source: Developed by the authors.				

These results correspond to the proposed theory as solution 1 is aimed to an absolute failure when there is a complete absence of the factors involved, affecting 99 percent cases of the Mexican SIS (see raw coverage in Table 4). Hence, we have:

For American SIS and eq2:

Solution 1: [$\sim \text{EPR}^* \text{MKK}^* \sim \text{STA}^* \sim \text{KPI}^* \text{BPL}^* \sim \text{VPN}$] (for 91% cases of the American SIS)+

Solution 2: [$\text{EPR}^* \text{MKK}^* \text{STA}^* \sim \text{KPI}^* \text{BPL}^* \sim \text{VPN}$] (for 81% cases of the American SIS)

$\rightarrow \sim \text{KSF} = \text{KFF} \dots$ (Eq. 2)

The theoretical significance of this research comes from the novelty approach and methodology adopted and described above. Most of the SIS studies are variance-based methods that assume that the relationship is “symmetric” among variables. Indeed, the relationships among variables are relatively more “asymmetric”. In other words: “High values of X are sufficient for high values of Y to occur, but high values of X are not necessary for high values of Y to occur. Hence, high values of Y occur when values of X are low indicating that additional causal recipes associate with high values of Y” (Fiss, 2011; Woodside, 2014).

The fsQCA is a method able to capture this asymmetry between SIS under an emergency context like COVID-19 pandemic ravages, involving entrepreneur profile (EPR), market knowledge (MKK), strategic analysis (STA), key performance indicators (KPI), business plan (BPL) and value proposition (VPN). These variables get different level combinations as key fail factors (KFF) for the SIS to create new hypotheses and theories when KSF fails (negated value $\sim \text{KSF}$). The findings present intricate patterns among these factors and how their asymmetric relationships empirically determine the same outcome. Besides, this study contributes and extends the knowledge and comparative applications of the SEM and fsQCA to Mexico (as an emergent country), and the U.S. (a first-world country) aimed to explain several common conditions or relationships of the social impact startup (SIS), according to the special conditions of a specific country. Hence, our research’s novelty is the combination of the factors identified in an empirical framework (Mejía-Trejo, 2021). Such framework describes, in principle, how these factors are related to getting high key success factors (KSF) in the SIS, and afterward how the same factors are related to getting just the opposite of KSF ($\sim \text{KSF}$), the key fail factors (KFF). The fsQCA uses on variables like entrepreneur profile (EPR), market knowledge (MKK), strategic analysis (STA), key performance indicators (KPI), business plan (BPL), and value proposition (VPN) represent a potential source of innovation strategies, by extension applied in design product/services, marketing business model, processes, organization, etc., and useful to the firms economically affected by emergency contexts like the COVID-19 pandemic in emergent and first world countries.

Practical Implications

Comparing Mexican SIS with American SIS despite the enormous difference in economy, public policies, education, etc., is a clear benchmark to follow to get and scale improvements for the Mexican SIS. There are a lot of lessons to learn. For instance, according to Table 2, for Mexican cases, it is necessary to work on how to improve the standardized path coefficients (β) on key success factors (KSF) related with entrepreneur profile (EPR), market knowledge (MKK) and value proposition (VPN) to be comparable with the American side (see Table 3). According to Table 7 and Table 9, the creation of new SIS, particularly those that use technology and sustainable tenets based on their product or service, generates competitiveness and economic growth (Matson, 2006; UN, 2015). The SIS fail (or the negated key success factor, $\sim$ KSF in Table 4) so badly everywhere we look due to several causes, mainly, the allure of a good plan, a solid strategy, thorough market research, etc. (Eisenmann, 2021; Kasimov, 2017; Mahout and Lucas, 2017; Valencia, 2016; Deeb, 2013; Feinleib, 2012; Ries 2011; Skok, 2010). Due to the uncertainty, all of them must be judiciously analyzed and quickly applied (Ries, 2011; Pomerol, 2018). In an emergency context (like COVID-19 pandemic), uncertainty boosts startup creation and development: “startups increase uncertainty and uncertainty encourages people to feed the process of startup creation” (Pomerol, 2018). Despite this, there is not enough information regarding the SIS in Mexico with the variables and indicators described here. Success is not delivering a feature; success is learning how to solve the customer’s problem (Valencia, 2016). The research findings throughout the Mexican SIS vs. American SIS comparisons, based on our KSF-SIS framework, provide useful implications for academics, business model innovation managers, and professional practitioners of innovation strategies. Suppose they use the conceptual model proposal implemented and proved in SIS under an emergency context (like COVID-19) in an emergent country. Our model could obtain new insights on how the combinations of the variables (EPR, MKK, STA, BPL, KPI, and VPN) can be considered key success factors (KSF) to be analyzed in a broader strategic context, while, the opposite, the key fail factors (KFF), to be avoided.

CONCLUSIONS

This study verifies how events, like the COVID-19 pandemic, are handled by 100/300 Mexican / American SIS survivors (in an emergent country and a first-world economy country) in the scenario of Jan-2021 to Jun-2021. These SIS had faced and handled the economic ravages, unemployment, competitiveness, productivity, and worse yet, the loss of the startup itself. Thereby, using CB-SEM in 100/300 Mexican / American SIS, we

confirmed an empirical framework with 6 underlying factors, 30 variables, and 30 indicators considered key success factors (KSF). We unveiled several essential issues, if we do not consider the different characteristics between countries, in number, size, activities, national economic policies, and consider all the results on the same level. Thereby, this framework allowed us to determine how Mexico's SIS must work in the development of several factors, primarily on the entrepreneur profile (EPR); the market knowledge (MKK), and the value proposition (VPN), in comparison to the American SIS. Although they are in acceptable levels the other factor values, such as strategic analysis (STA), key performance indicators (KPI), and business plan (BPL), must be improved adapting the EPR, MKK, and VPN factors. A complete analysis of each variable per factor is offered to appreciate the innovation strategies to be analyzed as a product of the unique results (KSF) of the Mexican SIS and American SIS. Besides, this framework allowed us to conclude that there is no single best combination of factors, considered key fail factors (KFF) that inhibit innovation strategies and must be avoided to improve Mexican SIS/ American SIS for the next normal. In this sense, the novelty of this study is the analysis of the opposite KSF conditions to get the key fail factors (KFF) through the use of fsQCA. A complete analysis of each factor is offered to appreciate the innovation strategies to be avoided as a product of the combinations or path results (KFF) of the Mexican SIS and American SIS. fsQCA displays several different paths to get the same outcome, in this case, the KFF with necessary, sufficiency, and consistency conditions. Hence, for Mexican SIS 5 combinations of factor presence levels to be avoided were displayed, while for American SIS only 2 of such combinations of factor levels were determined. To determine each factor's presence level the application of the CB-SEM is suggested, which displays the values of each variable involved per factor.

For Mexican SIS, we obtained 5 useful patterns with the same outcome, the key fail factors (KFF) as Eq.1.

- Solution 1:* [$\sim EPR^* \sim MKK^* \sim STA^* \sim KPI^* \sim BPL^* \sim VPN$] (for 99% cases of the Mexican SIS) +
Solution 2: [$\sim EPR^* \sim MKK^* STA^* \sim KPI^* \sim BPL^* \sim VPN$] (for 89% cases of the Mexican SIS) +
Solution 3: [$EPR^* MKK^* \sim STA^* KPI^* \sim BPL^* \sim VPN$] (for 76% cases of the Mexican SIS) +
Solution 4: [$EPR^* MKK^* STA^* \sim KPI^* \sim BPL^* VPN$]+ (for 55% cases of the Mexican SIS)
Solution 5: [$EPR^* \sim MKK^* STA^* \sim KPI^* \sim BPL^* No\ matter\ level\ presence\ of\ VPN$]-> $\sim KSF=KFF...$ (Eq. 1)

For American SIS, we obtained 5 useful patterns with the same outcome, the key fail factors (KFF) as Eq.2.

- Solution 1:* [$\sim EPR^* MKK^* \sim STA^* \sim KPI^* BPL^* \sim VPN$] (for 91% cases of the American SIS)+
Solution 2: [$EPR^* MKK^* STA^* \sim KPI^* BPL^* \sim VPN$] (for 81% cases of the American SIS) -> $\sim KSF=KFF...$ (Eq. 2)

Appendix KSF-SIS SCALE WITH OPERATIONAL DEFINITION OF CONSTRUCTS			
KSF-sis Framework			
Factor	Variables	Indicators [Respond according to Likert Scale 1-5: 1 – Not at all aware; 2 – Slightly aware; 3 – Somewhat aware; 4 – Moderately aware; 5 – Extremely aware. Questions are in third person.]	Authors
1. Entrepreneur Profile (EPR)	1. Entrepreneur personality (EPs)	We perceive our personality trait as an entrepreneur like: Openness to experience; conscientiousness; extraversion; agreeableness; neuroticism	Poropat (2009)
	2. Entrepreneur category of business (ECB)	Our entrepreneurship has more willingness to: Income and commercial reasons; social proposes with sustainable development	UN (2015)
	3. Entrepreneur experience (EEX)	For us, it is essential: The previous experience to start any entrepreneurship faster than others; the innovative behaviour; increasing the size of the startup along the lifetime	Fernández-Guerrero et al. (2018)
	4. Entrepreneur motivation (EMT)	Our entrepreneur motivation is more willingness to: Opportunity (achievement sentiment); necessity (survival sentiment); the results are more important than processes; self-confidence to overcome the fear of failure	Aldás-Manzano (2012); Olugbola (2017); Fernández-Guerrero et al. (2018)
2. Market knowledge (MKK)	5. Markets needs (MKN)	We permanently surveillance the market needs where we are serving through the identification of: Mass market; segmented market; diversified market; multi-sided markets	Balanko-Dickson (2007); Osterwalder and Pigneur (2010); Majava et al. (2014); Ibarra et al. (2020)
	6. Product/Service attributes (MPS)	We permanently surveillance of the correct attributes where we are serving through to incorporate, into the product/service to satisfy consumers' needs exceeding their expectations, earing the "voice of the customer". Right attributes; we systematically observe and evaluate the needs of our customers; we analyze the actual use of our products/services	Balanko-Dickson (2007); Osterwalder and Pigneur (2010); Ibarra et al. (2020)

3. Strategic Analysis (SA)	7. Market management by values (MVW)	We permanently surveillance of our value-based innovation through the identification of: CEOs/stakeholders; business model innovation; process/product-service	Mejía-Trejo and Rodríguez-Bravo (2019)
	8. Market size (MSZ)	To ensure that we meet all the needs of our customers, we permanently calculate the market size by: Volume; value; share	Balanko-Dickson (2007); BRW (2016); Okrah and Agbozo (2018)
	9. Competitors analysis (SCA)	We permanently analyze the competitors through the development of: Abilities to determine our market positioning faster than the competitors; abilities to identify faster the customer needs; abilities to innovate faster new products/services; attract better employees than the competition; abilities to identify faster the SWOT of competitors products/services; abilities to observe and evaluate the needs of our customers	Balanko-Dickson (2007); Mejía-Trejo (2019a); Ibarra et al. (2020)
	10. Product/Service design (SPS)	We permanently analyze to evolve our products/services design through the questioning of: Does it have enough correspondence with the attributes required to the market needs?; Is it easy to learn how to use?; Is it enough attractive in features and price to the customer?; Is it designed and developed cooperatively with suppliers and distributors?; If it is based on B2B (or any electronic business modality) is it enough designed to the customer's requirements?; Is the design for products/services aimed to get emotional benefits to the customer?; Is the design for products/services aimed to get rational benefits to the customer?; Is the design for products/services aimed to get rational benefits to as eco-innovation needs of customer?	Balanko-Dickson (2007); Kotler et al. (2017); Mejía-Trejo (2019a); Maldonado-Guzmán and Garza-Reyes, JA. (2020)

Appendix KSF-SIS SCALE WITH OPERATIONAL DEFINITION OF CONSTRUCTS (continuation)		
11. Cost/Price (<i>SCP</i>)	We care about customer perceived value as a relationship of costs/prices of our products/services supported by other value-added as the result of: Studies to fix prices for: Survival; Maximum current profit; Maximum market share; Maximum market skimming; Product-quality leadership Studies to determine costs computing total: Customer cost/benefit; Product-Monetary cost/benefit; Service-Time cost/benefit; Personnel-Energy cost/benefit; Image-Psychological cost/benefit; Customer retention rate; Cost of operation; Cost of branding; Variable and fixed costs in design, engineering, manufacturing, sales, delivery, etc.; A permanent analysis of competitors' costs/prices to keep them balanced and competitive; . A permanent review to keep enough earnings by incomes	Kotler et al. (2017)
12. Business model (<i>SBM</i>)	We believe that the main proposal of the business model is aimed to make more and better products and services based on: More incomes and earnings to the stakeholders; Produce more benefits increasing the live quality to the individuals and the society based on sustainable tenets; Development of the team-works around the empowerment, achievement and perseverance of the personnel; Ideas and concepts into detailed products, services, value propositions or business models; The combination of technology, market and business model knowledge in the idea generation and/or experimentation processes	Balanko-Dickson (2007); Dessyana and Riyanti (2017); Osterwalder and Pigneur, (2010); Ibarra et al. (2020)
13. Managerial orientation (<i>SWO</i>)	Our strategic priorities in management have been oriented towards: Cost reduction rather than investment (in R&D, capital, etc.); The short term rather than the long term; On low-risk projects rather than projects with greater potential but that entailed higher risks	Ibarra et al. (2020)

4. Business key performance indicators (KPI)	14. Innovation strategy (SIN)	We promote: Creativity and innovation; People's knowledge and initiatives; Open communication and interdepartmental exchange of information; New concepts to test through prototypes and pilot tests before their final development; New ways of both creating value for our customers and capturing value from our innovations; The involvement of customers in the innovation processes; The involvement of external partners; The collaboration with external partners	Fernández-Guerrero et al. (2018)
	Technology strategy (STE)	We: Keep up to date with promising new products/services and technologies; Use different sources of information to identify opportunities related to new products/services and technologies; Follow which technologies our competitors use	
	16. Type of society (STS)	We prefer to undertake an entrepreneurship more willingness to: NGO More than 95% of its income depends on donors; Non-profit social company. More than 67% of its income depends on donors: Hybrid social enterprise: More than 5% of your income comes from the market; For-profit social enterprise: From 50% to 67% of its financing derives from its resources	
	17. Product/Service innovativeness with value added level (KIL)	We design, implement and frequently measure as key performance indicator the relationship of our products/services innovativeness with value-added level.	
	18. Implementing performance of business plan (KIP)	We design, implement and frequently measure, as key performance indicator our business plan advance according to the norms and schedule	Balanko-Dickson (2007); Mocker et al. (2015); Parmenter (2010)
	19. Social impact by products/services (KS)	We design, implement, and frequently measure as key performance indicator the social impact of our products and services according to our business plan	

Appendix KSF-SIS SCALE WITH OPERATIONAL DEFINITION OF CONSTRUCTS (continuation)		
5. Business plan (BP)	20. Satisfaction of product/service level (KRI)	We design, implement, and frequently measure as key performance indicator the customer's satisfaction of our products and services according to our business plan
	21. Customer profitability (KCP)	We design, implement, and frequently measure as key performance indicator: Customers live-cycle value; Customer retention; Customer profitability
	22. Financial plan (BFN)	For us, for every new or innovated product/service, it is necessary to calculate: Initial cost; Balance sheet and income statement; Break-even point; Return of investment; Net present value. For us, our main source to finance new entrepreneurship is based on: Bank loans; Crowdfunding; Family and friends
	23. Operation Maintenance & Emergency plan (BOM)	For us, it is important the operation, maintenance & emergency plan to: Identify resources and capabilities to do it by own; Identify resources and capabilities to do it by outsourcing; Have all the resources, capabilities, and processes entirely documented; The key tenet is to know how to proceed both in regular and in contingency times, being more competitive; Be certificated in every vital issue of work getting trust in customers and being more competitive
	24. Intellectual property plan (BIP)	For us, the intellectual property plan is centered to: Engage them with the resultant innovations; Protect them legally as resulting innovations; Procure enough financial resources to register them
	25. Accountability plan (BAC)	For us, it is essential to operate an accountability plan, in favor of the social impact startup, to boost innovations keeping permanent surveillance in: Transparency; Participation; Evaluation of accountability results; Complaint; Response mechanisms; Responsiveness
		Balanko-Dickson (2007); Mejía-Trejo (2019b) Balanko-Dickson (2007); Hyvonen (2014); García-Pauca et al. (2015) Baran and Zhumabaeva (2018) Blaguescu et al. (2005); O'Connor and Mock (2020)

26. Digital marketing plan (BDM)	For us, a digital marketing plan is essential to design a web campaign, driving product features and service mix, boosting for: Awareness; Desire; Experience; Engagement; Loyalty; Satisfaction; Effectiveness on call to action For us, a digital marketing plan is essential to design a network to: Increase relationships for the entrepreneurship; Conducting market research and performing better in strategic planning, leading change	Mejía-Trejo (2017a; 2017b); Piñeiro-Otero and Martínez-Roldán (2017)
27. Aftersales plan (BAS)	For us, an aftersales plan is essential to retain the customers in the entrepreneur business plan using: Telephone calls; CRM (Customer Relationship Management); emailing; Social media	Barkawiet et al. (2020)
28. Value delivery (VDE)	In the last 3 years in our company we have: Met new customer needs previously unmet by the market; Solved customer problems not solved by our competitors; Introduced new forms of value for customers; Introduced new forms of value for other partners (suppliers or distributors); Diversified into new markets, targeting completely new customer types or new geographical environments; Expanded our activity to new customer segments	Ibarra et al. (2020)
29. Value creation (VCR)	In the last 3 years in our company we have: Significantly modified the set of key activities of our business through the acquisition or elimination of certain activities or their internal and/or external reorganization, allowing us to be more efficient and improve our response; Established new collaborations with third parties that have allowed us to optimize and improve our value proposition and/or business model; Integrated clients, suppliers, distributors and other agents in innovative ways in relation to the delivery of products and services; Re-configured our value chain, allowing us to be more efficient and to respond better to all interested parties.	
30. Value capture (VCA)	In the last 3 years in our company we have introduced new: Ways to reduce costs; Pricing mechanisms; Ways to be profitable; Revenue streams	
Source: Mejía-Trejo (2021).		

Finally, the combination of different levels of each of the six factors permits the strategist in several areas such as innovation, business, marketing, etc., to combine them to improve their strategy in the market.

Limitations and Future Studies

All empirical studies have some limitations. First, the industry's and the sectors of the sis' willingness to cooperate as sources of information. Not all of them are available to provide information under equal conditions and times. Second, the results consisted of a scale of self-reported data to remind their perceptions. Further studies could combine direct observations of specific sis with our scale with survey data from direct semi-structured interviews and from other emergent countries as well. Third, future research may also include other different factors, variables, or indicators as key success factors (ksf) in other kind of startups, or for instance, the influence of public policies, the grouping of CEOs by gender, education level, incomes level, key partners, funding resources, etc. which could offer more useful information.

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