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Literature review on innovative strategies for the post Covid-19 commercial strengthening

Revisión de literatura en estrategias innovadoras para el fortalecimiento comercial post covid-19

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Resumen

El objetivo de esta investigación es analizar los principales aportes científicos publicados sobre estrategias para el fortalecimiento comercial post covid-19, desde el ámbito académico, científico, empresarial y político. Se utilizaron las técnicas exploratoria y analítica para realizar una revisión sistemática de un total de 114 artículos de los cuales 44 cumplieron objetivamente el campo de estudio en un periodo establecido del año 2015 al 2020. La investigación inicia con un mapeo internacional del impacto económico del covid-19 a nivel internacional, seguido como fundamento teórico la descripción de herramientas de planeación estratégica y gestión de la calidad para el impulso comercial, finalmente se analizaron las distintas estrategias para el fortalecimiento comercial posterior al covid-19. Los hallazgos de la investigación están relacionados con la capacidad de respuesta, impulsada por la creatividad, la generación de nuevos conocimientos basados en tecnología, el alcance de la toma de decisiones, reducción de riesgos en la cadena de valor para la pronta adopción, así como recuperación económica post-covid 19.

Palabras Clave: Covid-19, comercio internacional, estrategias comerciales; innovación competitiva.

Abstract

The main goal of this research is to analyze the main scientific contributions published about the strategies for the commercial strengthening post Covid-19, from the academic, scientific, politics and business field. The explorative and analytical techniques were used to make a systematical revision from a total of 114 articles from which 44 achieved objectively the field of study in an established period from 2015 to 2020. The research begins with an international mapping of the Covid-19 economic impact to an international level, followed as a theoretical basis the tools description of strategic planning and quality management for the commercial impulse, finally the different strategies to the commercial strengthening post Covid-19 were analyzed. The findings of this research are related to the response capacity, boosted by the creativity, the generation of new knowledge based on technology, the scope of decision making, reduction of risks on the value chain to the early adoption as well as the post Covid-19 economic recovery.

Key words: Covid-19, commercial strategies, competitive innovation, international trading.

1. Introduction

The 2020 march 12 the World Health Organization declared global emergency due to Coronavirus 2019 (COVID-19), the sickness has caused serious consequences to a global level both for the public health as well as the real economy (Gu et al., 2020). The unemployment problems, the Gross Domestic Product reduction, low yields, business closure as well as the quarantine have caused a domino effect on the global economy instability and uncertainty.

It is projected that the Global Gross Domestic Product (GDP) will suffer a reduction of 4.5% in 2020 due to the global pandemic caused by Covid-19, which without the prompt response of effective policies, the economic interruption will be prolonged, and some central banks have announced measurements such as keeping low rates during long periods of time, there are also countries who will offer flexible fiscal policies and incentives to the 2021 year. In the second half of the year the global population spending in durable goods has started to recover, nevertheless, the dependent economies of services such as tourism as well as other activities that need

social interaction have seen themselves strongly affected; the international commerce has had a global decline of 15%, investments remain weak waiting for the recovery of the exporting manufacturing economies production (OECD, 2020).

Merchandise trade fell during the 2020 first half due to the Covid-19 pandemics creating a negative economic disruption bigger than that one that was lived in the 2008 crisis, both in manufacturing and services, however, although the volume of containerized shipments showed a sharp drop in 8% it has signs of resistance compared to the 2008 period when it decreased 14%, the commercial flights included those of cargo and passengers decreased in 74%, showing a recovery until the second half of the year. The World Trade Organization (WTO) economists estimated in April a falling of the international commerce between 13% and 32%, with optimistic numbers as long as the pandemic is controlled. Merchandise exporters most affected were; South Africa, India, Mexico, Norway, Canada, the most affected in services; Italy, Hungary, Romania, Australia, Portugal (WTO, 2020).

For the third quarter of 2020 existed a generalized falling on the exportations with a major impact in commerce in developing countries, except for some Asia economies that started to show recovery signs such as Vietnam, China and Korea, however, the Purchasing Manager Index showed a negative tendency with an inferior 3% compared to the last year. The most affected sectors were the automotive, energetic, chemical industry, productive machinery, metals and mining, contrary there were sectors that showed a growth such as textile by manufacturing of protective equipment as well as office equipment. The international commerce played a substantial role in responding to the pandemics due to Covid-19, on the fighting to avoid the spreading, achieving the supply of the material and medical equipment which was increased in 50% (UNCTAD, 2020).

Such as Nassif et al. (2020) pointed the small business contribute in a very important way in the creation of the local and regional employment; these were more susceptible to the decrease in demand caused by Covid-19, but it exists evidence that the entrepreneurs own fast recovery capacities, however for this to happen it is required of a minimal preparation such as the mastering of technology, not only as an innovative idea but as strategy, where quality endures as well as the good cooperation relationships with business partners and customers, through a long term orientation which allows developing competitive advantages, based on non-financial objectives.

The international health problem caused the acceleration on the digital tools usage, meanwhile, those companies that do not reinvent their business models are doomed to failure, while those that do it will take advantage inside the food industry, transport and supply chains which are some of the most affected sectors (Genkin and Mikheev, 2020).

The main objective of this research is to analyze the main scientific contributions published about strategies to the commercial strengthening post Covid-19, from the academic, scientific, business and political sphere that provide an overview about the actions that are being taken to face the economic deterioration as well as the global value chains activation. This paper is structured as follows, first analyzing the trade, then the role of strategy in business models focus on quality and finally screen data from different authors looking for concepts and ideas in order to find Post Covid strengthening strategies.

1. Materials and methods

The explorative and analytical techniques were used to make a systemic revision in scientific publications in data bases such as Ebsco, Conricyt, Thomson Reuters, Science Direct, Scopus and Web of Science. A total of 114 articles were analyzed of which 41 of them objectively fulfilled the field of study about strategies to the commercial strengthening post covid-19.

To the filtering of relevant articles it was applied different Boolean strategies (AND, OR and truncation *,?) helping to obtain the specific information previously segmented. The search period was carried out from January 1st 2015 cut to October 10th 2020, emphasizing scientific production after 2020, with the key words combinations: business strategy; strategic tools; covid-19; business strategy; coronavirus; economic impact; business trends; business scenarios; post-pandemic.

2. Discussion

The development and implementation of new lean strategies, through the adaptation of the business model, as well as the adoption of new technological tools within the companies, would allow the displacement of commercial opportunities and new technological routes to remain in force and not die in the attempt during the pandemic caused by covid-19.

3.1 Trade

The evolution process reaffirms that it is necessary to adapt as well as reinventing oneself to survive to a changing environment, the new feature in the global market is to add more value in the services and products, through quality and total satisfaction. Yang (2017) explained on his research that the fulfillment in customer needs is not enough to build loyalty, now more attention has to be added to the full value chain to overcome the expectations, since a client with total satisfaction has five times more probability to acquire again a service or product.

Filiz Karabag (2020) described on his research the short and long term impact that the pandemic will cause to the international economy, where global trading industries as well as companies reflected a high unsustainable risk inside the interconnected supply chains, it affirmed that regional commerce was incentivized. The research concludes that the strategy success to the economic recovery will depend on different factors, such as the social and cultural behavior of population, technological and medical infrastructure, private industry actions, and fiscal and monetary policies by government.

Zhu (2020) mentioned that due to the interconnected economy and electronic

commerce increasing, clients are changing their buying behavior of direct channels to the internet, which is boosting to reinvent the structure in the distribution channels, modifying the distribution strategy of products, which is immerse in three actors of the supply chain, the manufacturer, the retailer, and the final client. He presented a model with the previous concepts, where the price elasticity it is according to the type of distribution and influenced by three aspects of the product, the quality level, the prevention quality effort, and the direct selling price, finding that the client gets the major added value in mixed channels when the retailer as well as the manufacturer intervenes.

Ranald (2020) mentioned that the pandemic has boosted an open debate about the public policies that governments such as the Australian must chase, in which trade or investment barriers are removed, each country specialized itself in its more competitive exportations and low price importations, however, there are studies about international deals in which their incursion in topics about internal policies are criticized, such as the Trans-Pacific Partnership, which looks to maximize low prices in global production chains for big corporations, despite the treaties are agreed between countries companies own effective weapons in international courts such as the Investor-State Dispute Settlement to achieve economic compensations, for any type of non-compliance, although 164 countries members of the WTO are against it, at present there are 1000 open cases, which will be incremented due to the COVID-19 pandemics.

Yaya et al. (2020) presented a study about the employment and poverty impact due to the Covid-19 pandemics in the global supply chains affecting companies' exportations

such as oil and gas in Africa, as well as the agricultural and mining sector. They commented that before this event a setback in trade already existed, in investments, the profits of multinationals by forces against opening gave way to the term slowbalisation. They found that to mitigate the pandemic impact it is necessary to give financing through innovative strategies as well as promoting the free trading between countries within the African Continental Treaty, since it exists a great dependence by China, USA and Europe. They concluded that assistance by developed economies is needed to strengthen the collective skill, as well as learning of Africa's response, which is a region with limited resources facing a health crisis.

Debnath (2020) commented that the impact due to COVID-19 in India affected sectors such as agriculture which represents 15% of GDP with 43% of the total workforce, manufacture which represents a 20% of gross value added has aggravated its situation due to lack of credits, automotive which already faced a low in demanding now faces a worse scenario for non-payment of loans, construction which represents 8% of Gross Value Added (GVA), where its workers will not receive annual benefits, services which represent 53% of GVA being the major component of the economy is living a decreasing on its frequency. However, not all sectors suffered recoil, contrary to the health sector showed benefits such as the pharmaceutical industry by demanding of medicines as well as the information technologies which thanks to their configuration allow adding workspace barriers via remote locations allowing transactions that increment the adoption, automatization and artificial intelligence.

One of the most affected sectors was the automotive, which has overcome different economic and health crises worldwide,

thanks to the response capacity. More than 10% of the automotive parts of the world are made in China, the health crisis collapsed 81% in the country during the first months of 2020, affecting the global supply chain, due to the high risk in the production lines because the COVID-19 virus persists, some applied strategies highlighting the expansion of pending credits as well as changing traditional processes to digital platforms (Spacapan, 2020).

Fugazza (2020) made a study about the coronavirus impact in the commodities commerce from developing countries to China, representing 20% of the world total, in sectors such as the energetic, miner, raw materials other than beverages and food, showed a decline in imports received from 82 countries, comparatively, the European Union also receives another 20% of the global exportations from 88 countries registering its lowest index in the last 10 years, while USA received 9% from 78 countries respectively. In addition, the WTO estimated a 13% to 32% contraction in the 2020 year, of international trading mainly in complex value chain sectors such as electronic and automotive products.

Vidya and Prabheesh (2020) presented a study about trade between countries before and after the pandemics due to COVID-19, which distorted global supply chains due to a suspension in production, they made forecasts of 15 major economies, Canada, US, UK, Germany, France, Italy, Japan, South Korea, China, Hong Kong, India, Indonesia, Russia, Netherlands and Singapore, through trade analysis networks an artificial intelligence with information of the 2018 WTO applying Long Short - Term Memory to the end of 2020 subsequent scenarios, with the main goal of knowing if there are going to be important consequences in global networks, finding that in the first quarter of 2020 there was already less interconnection between economies, the

central position by China within trading was not affected and trading between these economies will continue to decline.

Oquubay (2020) pointed out that the crisis originated by COVID-19 affected developed and developing economies alike in the short, medium and long term. He made a study to see the government's responses in health systems, observing that Asian countries learned from previous crises like SARS or MERS, moreover, he checked the rescue package finding that big economies with big industries must protect not only employment but also innovation. Furthermore, said that global value chain evolution appoints to a progressive transformation of improvement agility and resistance, concluding that the fight against the pandemic is not only about innovation but also about technological advances, therefore industrial policy should be allowing fast response and structural transformation.

3.2 Business strategy

It was observed how companies have disappeared from the radar with traditional business models meanwhile, those organizations that have incorporated this vision of learning and adapting have maintained themselves in time. The evolution of technology and the global competence have caused that the changes in the life cycle inside markets become shorter each time, Fæste et al. (2019), pointed out that it is important to incorporate management methodologies more flexible to change, for example the Lean Startup methodology. Some companies have invested big amounts of money to monitor the scientific and technological progress, identifying new competitive opportunities, however, not all companies have the capacity as well as vision to face the economic changes, making them more vulnerable.

Arias-Pineda and Ramirez-Martinez (2019) commented that classical administration considers the company a dead system, which must work as a linear repetitive shape machine in a stable context, in which components can be substituted since they carry out the same activities, besides being rigid and static structures. However, it is a fundamental challenge of our time to understand the human organizations as living systems, complex nonlinear networks, and this challenge derives from changing the modern thought that prevails in businesses where there is a linear view of efficiency and effectiveness, where the administrative thought is interested on the reflected results both in profitability and competitiveness, not in truth.

Bentley-Goode et. al (2019) analyzed a void that exists around organizations in the context of internal and external information in relation to their business strategy, in organizations oriented to innovation with prospective strategy, or in efficiency with defensive strategy, this association will depend on protection or divulgation incentives according to the election of the organization, as well as the information asymmetry. They proposed indicators to determine the degree that strategy influences business, finding that it is useful to understand the context and it is also stable in time, the strategic objectives also work that can minimize or divulge environment information.

Gao et al. (2018) commented that have been identified two distinctive strategies in the trajectory of organizational learning, explorative and exploitative innovation, the first one requires 80% of new knowledge outside the firm, but it requires time to achieve results besides having high uncertainty while the second one is built based on 80% of existent knowledge from the

same firm with quicker results as well as less uncertainty. They made a study in the USA on patent activity in both public and private firms looking for the differences on corporative innovation strategy in a period between 1997 and 2008. They found that public firms use exploitative innovation more, with major mastering of knowledge but minor generation of technological patents, controlled such behavior by forces of capital about its performance or by uncertainty. They concluded that the difference in innovation between firms is due to risk preference, life cycles or corporate acquisition policies, but private firms tend to have more innovative behavior.

Overtime technological evolution has incorporated different inputs to achieve the industrial processes, although one of the most outstanding features of technology is instability; as well as, life cycles velocity on services and products, compared to the traditional markets which find themselves already in a trade stability process (Bouncken et al., 2018).

Kumar (2020) commented that multiple tools exist that release knowledge for formulation of strategies in business which allow the generation of new ideas and solutions, however, applying them in the organizations is complicated, for this reason one of the essential components is to identify the set of activities that help to build a unique competitive position in market, using strategy as a central idea of a strategic map, which must consider seven key aspects, people, positioning, key resources, internship, business environment, election of what not to do (trade-offs), finally a goal or reference, the mentioned map will help to identify critical aspects to formulate strategy.

Dobrovic et. al (2018) mentioned that one of the main problems in Small and Medium-sized Enterprises (SMEs) is that they do not

own long term goals, they focus most of their efforts on short term goals, therefore each organization must customize indicators according to their particular goals including not only financial aspects but also flexibility factors as readiness or speed of implementation, learning capacity, workforce innovation, understanding of the best information based on society. Although most companies are managed by financial indicators, under current trends they will not help their survival against a strong competence, nor a strategy based only in that sense, for that reason the implementation of strategic tools with a socio-economic system point of view evaluating complex internal and external relationships will help organizations to survive.

Shi et. al (2018) commented that companies must innovate to keep competitiveness although innovation practices could impact on the quality of products. This is also known as new technologies adoption, in which changes are integrated, improvements in processes or product result on new roads to increase productivity, to improve efficiency or reduce costs. They made a study within the manufacturing context in China where the government owns explicit policies to expand innovation in manufacturing companies that boost the constant structural transformation. Its goal was to evaluate the relation between innovation practices with the product quality in 201 manufacturing companies, finding that the product performance in market is associated with the quality level in which significantly influences the size of the company as well as the specific resources which are counted on to adopt these practices.

Gupta and Salter (2018) researched the relationships between the organizational culture and the adoption of the Balanced Scorecard (BSC), the data was collected from 1126 senior managers in 48 Indian

manufacturing companies. The discoveries in the study showed that organizations that were oriented to a long term strategy as well as the performance of a high level of competition, had higher levels of use and adoption of the BSC. So, the identification of those companies with a business vision which avoids strategically the commercial uncertainty, guarantees the level of success in the adoption and applicability of the BSC.

In the literature review can be observed how to implement strategically total quality management models impact significantly in product, market shares but specifically in effective rapport and bonding within the organization. Chaudhuri and Jayaram (2019) made a research about the impact on the performance of integrated quality and sustainability strategies. They showed that when implementing strategies for total quality management they simultaneously improved the security, work creativity, productivity, prevention of problems and waste rates went down causing directly the business sustainability phenomenon, which is business and work performance.

3.3 Post Covid 19 trade strength strategies

Many countries wasted time understanding the scope and impact that the pandemic would cause in public health as well as economy, while it continued its accelerated spreading among countries. In Smith and McClean (2020) searching, they analyzed the economic response in Japan and USA during the first quarters of the pandemic, the governments of both countries encouraged the economic equilibrium through fiscal stimulus packages; USA allocated about 11% of GDP including business loans, hospital assistance, transfers to state and local governments, supports for 1.200 dollars below average income, while the government of Japan allocated around 21.1% including subsidies for SMEs,

transfers to local governments to provide financial assistance to the companies, medical assistance, universal cash booklets and 2,808 dollars to the most affected households. It is important to analyze that the stimulus strategy did not represent a significant impact in the face of the economic crisis, being two of the most important economic powers of the world.

Di Vaio et al. (2020) made a research about artificial intelligence participation in the agri-food system and the supply chain, to the development of sustainable business models in pandemic times due to Covid-19. In the research findings it is mentioned the term space economy to the achievement of responsible and sustainable economic models by increasing efficiency levels and production of artificial intelligence.

Commercialization and transfer of technology in 4.0 industry represents an opportunity to enter new international markets. Villafaña and Lezama (2020) described the commercial opportunities obtained through technological development that arise from effective linking between university, company and government in 4.0 industry. Findings in the research showed that licensing as well as marketing of developed patents in companies and universities, boost competitiveness as well as income generation through new business models. The research concluded that the linking of the triple helix would accelerate the maturation of technologies and would shorten the transfer of technology process.

Gustmann de Castro et al. (2020) made a study to determine the strategies to minimize the socioeconomic impact of the pandemic in companies from Brazil. A revision of literature was used in which it obtained the next strategies: efficient communication, work planning, digital improvement, telecommuting, and adoption of measures

aimed at the welfare of workers. The study helped to describe the opportunity areas to different country regions, since to implement these strategies it is needed an investment in infrastructure of information technologies, which it represents a challenge.

In recent years, globalization has caused more social inequality as well as a major climate impact. Pocock (2020) proposes that acceleration as well as economic recovery after Covid-19 depends on effective bonding in innovation, science and technology with a social approach, through the commercial development in green energy, regional and national circular economy, owning as a main objective the satisfaction of basic human needs but not consumerism. This would cause a uniform economic recovery, and not just from global economies.

Deopa and Fortunato (2020) studied the term Coronagraben making reference to social distancing influenced by cultural differences from country to country resulting, in an important difference at the time of voluntary compliance to implemented policies about interpersonal contact or masses mobility, which is directly related to deciding to contract the disease or to continue the economic activities. They commented that the term is associated with specific cultural features in frontiers of a Franco German speaking region in Switzerland called Röstigraben, different social preferences are manifested finding that the biggest outbreaks occurred in zones where French is more spoken than German.

The gaps in inequality have increased during the pandemic, as well, we have seen that social distancing represents a privilege to a small group, to which poor people does not belong, in the searching work made by Bapuji et al. (2020) they described how management with a social focus could take a positive turn

to improve international economic inequality, mainly to the most vulnerable groups. Through responsible social corporate management, smart job design, recruitment and selection, as well as compensation management could contribute to the economic boosting in the most affected segments, without neglecting the inequality approach in the process. The work makes a theoretical contribution to encourage the social economy with a focus on reducing levels of inequality.

In Tompkins (2020) investigation he analyzed the challenges to overcome and stimulate the economy as well as the reign of companies from the supply chain, as there is no control of the flow of goods during the pandemic, it caused inventory surplus and shortage of essential products. The work proposes a strategy for synchronization between supply and demand by controlling the flow of goods to avoid shortage. The investigation identified which markets were the most stable thanks to a risk planning in financial areas, unique value proposition development, innovation, leadership and corporate culture, which strengthened the competitive heritage to remain in force during the pandemic.

Bollard (2020) presented an article about the impacts on trade due to confinement by Covid-19 pandemic in New Zealand, which has been particularly complex due to its unexpected global synchronization, causing economic damages due to falling in production resulting in demand contraction, leader countries such as USA reinforces its nationalism after seeing its dependence on China, which damaged its reputation but seeks to take leadership under his vision Made in China 2025, third countries of the alliance trans-pacific show concern for trade tensions besides International Monetary Fund (IMF) projections which indicate a global shrinkage of 3%, however it sees a potential

recovery via a digital expansion, changes in business behavior, increasing on local tourism, additionally capitals must continue to provide financing where countries will compete for investment.

Varelas and Apostolopoulos (2020) made a research about strategic management implementation in the touristic sector in Greece during the economic crisis by Covid pandemic leaving a reduction in profit of 93% less than 2019; despite this, this sector has shown resistance to other global crisis that according different investigation during these lapses it has been necessary the implementation of new technologies, focusing in future, understanding the strategic behavior according to certain parameters about hospitality such as size, kind, category, competitive advantage, the context in which it operates measuring performance with indicators both financial and non-financial, they found that location as well as quality of service are important advantages and not innovation.

Hamilton (2020) presented the case about a digital marketing firm in Australia, which has been successful despite the global pandemic due to Covid-19, it has put many businesses into hibernation for up to 6 months with an economic decline, through their skills, capacities and competitiveness through its strategic change matrix (3C's). Said company was forced to investigate the options of customer survival, because it operates not only as a digital marketing firm, but also as a strategic management consultancy, gathering experience and information to deliver knowledge chasing future with tools such as the Gartner's overexploitation cycle, finding that long term solutions such as keeping customers are not enough, it is necessary to diversify, acquiring digital skills, finding opportunities such as marketplaces.

Koga (2020) mentioned that both Japan and Southeast Asia faced complete different situations from 2019 to 2020 for the Covid-19 pandemic, since one of the most significant developments for the region was the creation of the Association of Southeast Asian Nations (ASEAN) that seeks inclusion in the region, as well as cooperation in defense matters, infrastructure and digital infrastructure, in part to counter the Chinese power. The initiatives reviewed in these conventions have been proposed by Japan in the G20 so that the scope of modernization reaches other parts of the world, being imperative the modernization as a source to integrate itself within industry 4.0 with economic repercussions as well as cybersecurity.

In Kuenzig (2020) work he described the digital adoption acceleration during the pandemic, mainly in domestic economy or micro companies. The crisis is segmented in three phases; the first one is described as waiting and fear, the second one resistance and impact, and the third one as the new normality, forcing people to stay in their homes for more time. The research identified new business practices carried out from home, with the use of technologies with electronic firms, the cloud, mobile captures and digital interfaces free of charge, which considerably reduced physical contact. Unfortunately, the research showed an increase in digitization for trading transactions but also an increased leakage of confidential information and data crimes, almost a 500% which represents 12 thousand million of filtered records, the email was the most vulnerable tool and with less cybersecurity.

In the same way Vázquez et al. (2020) described the challenges, as well as opportunity areas in cybersecurity with an internet of things approach, one of the new tendencies of digitalization and technological

tools in the new normality. The study identified important derived challenges in reliability policies and strategies as well as mega data backup, which it puts in a situation of vulnerability to most of the new work schemes from the internet.

In the research made by Rashad and Nedelko (2020) they proposed the global sourcing in supply chains through lean strategies, agile and flexible. The impact of this model would have its own benefits in the elimination of times to link business partners, reducing time to build trust between new partners, having a lower inventory level without risks of raw material shortage, decrease in operating costs, incentivizing fair competition, and maximization of natural resources available to humanity. This research makes a contribution in the best practice framework for supply chain management in times of crisis.

Manolova et al. (2020) made a systematic research with information of the Diana International Research Institute to observe how enterprising women are pivoting their business models in response to the impact both of supply and demand caused by the COVID-19 pandemic, being its businesses more impacted by factors such as the type of industry where they operate, size and time of existence as well as family for the closure of schools, although they tend to be more conservative with the risks. A third of businesses offered virtual services, although they most think it is only a temporary measure. They concluded that pivoting of businesses to face the crisis does not only require defensive and offensive measures, it is necessary to reduce risks simultaneously and to take opportunities considering not only the economic environment but the social one where business operates.

McMaster (2020) pointed that the COVID-19 pandemic affected most of the supply chains in the world, mainly to corporations with globalized structures, 94% of the thousand companies of Fortune, they experimented disruptions, and as a result it promoted efforts in redesign, endurance improvement as well as relations with vendors to reduce future risks due to the impact of unexpected events tends to effect more to the complex value chains, mentioned the whip effect and the wave effect, the first one composed for several scenarios of uncertain demand patterns that can be mitigated with shared real-time response strategies, the second one investigates the digital technologies game and 4.0 industry to give flexible responses, in any case making lean the supply chains decreases risks.

Guo et al. (2020) commented that the Covid-19 outbreak strongly altered global value chains generating a huge pressure, they made an study in 518 SMEs enterprises in China to explore the relation of time crisis with digitization, considering that a crisis situation generates dynamic responses, in an emergency short term to survive, in long term, strategic to development, finding that people must have the capacity to know the crisis, to take new opportunities as well as reconfigure resources, short term strategies include production, employment protection and donation, while the long term ones include digital transformation as well as strategic changes of product, regional market and cooperation relationships. They concluded that depending on the degree of digitization, it will help to improve the response facing a crisis.

In the next chart it is shown the contribution of the papers relating to post covid trade innovative strength strategies included in this paper.

Table 1. Referent chart of post covid trade strength innovative strategies, elaborated with the proper information obtained from the cited authors.

Author	Year	Concept	Idea	Post Covid Strategy
Bapuji et al.	2020	Social Management	International Economy Inequality	Corporate Social Responsibility and Intelligent Work Design.
Bollard	2020	Globalization in Covid-19	Unexpected Synchronization	Digital expansion, change on business behavior, Local Tourism
Deopa y Fortunato	2020	Corona-graben	Social Behavior	Exposed to Covid-19 vs Economic Activities
Di Vaio et al.	2020	Spatial Economy	Artificial Intelligence to develop business models	Responsible and Sustainable economic models
Guo et al.	2020	Dynamic Response	Emergency vs Strategic response	Short and long term response through digital transformation
Gustmann de Castro et al.	2020	Updating	IT updating & welfare	Digital improvement, Telework, Planification, Efficient Communication
Hamilton	2020	3C's	Competence, Capabilities, Competitiveness	Diversification, Marketplace, Focus on the Future
Koga	2020	Regional Integration	Defense and Digital Infrastructure	Industry 4.0 integration and Cybersecurity
Kuenzig	2020	Digital Adoption	Acquisition of Technology and risks	New working practices and cybersecurity issues
Manolova et al.	2020	Pivoting	Pivoting Business Models	Offensive and Defensive pivoting measures
McMaster	2020	Redesign and Resilience	The whip and wave effect	Real time response and flexibility through industry 4.0
Pocock	2020	Recovery	Uniform economy	Science, Innovation and Technology with social approach
Rashad y Nedelko	2020	Lean Global Supply Chain	Best practices in time of crisis	Minimize risk and Maximize resources
Smith y McClean	2020	Tax Incentive	Government assistance is not the only answer	Re thinking strategies of not only tax incentives
Tompkins	2020	Synchronization Strategy	Supply Chain Flow	Steady Market on risk planning, value proposition, innovation and leadership
Varelas y Apostolopoulos	2020	Strategic Management	Resilience against crisis	New technology, Future focus, Understand behavior, Quality Services
Villafaña y Lezama	2020	Triple Helix	Linking Government, Companies and Universities	Competitiveness and incomes through new collaborative business models

3. Conclusions and recommendations

The international trade and the global value chains have been hit hard because of the covid-19 pandemic with consequences in the global economy as well as the logistics causing stagnation, shortage, increasing in prices of products and services, therefore organizations with innovative business models have been able to struggle against the crisis, our research try to summarize feasible strategies in order to provide useful ideas combined with technology pursuing long-term goals not only to solve the current crisis but also the social inequity.

Those companies that subsisted on the health crisis caused by Covid-19, stood out through the impulse of creativity as well as the strategic approach, which generated new

knowledge and competitive methods to adapt itself quickly to the new normality.

In the different segments of the research it is observed that the pandemic accelerated the technological tools adoption to advance in digitization from the business environment, public or educative, based on artificial intelligence, internet of things or the big data to make way to evolve business models that will require computer security.

Another finding that this research made was that the product and services quality represented a differentiator not only in acceptance but also in the new technologies adoption to different kinds of organizations, which made easier the business or employment relationship, achieving also the compilation of information to the decision

taking to the objective of responding nimbly to the specific demands of their markets.

Covid-19 exposed weaknesses not only of health but also economic worldwide besides different opportunity areas in the value chains of the international trade, which decreased in different stages of the pandemic, however, big and medium companies reflected a constant commercial participation through the regional consumption, while the big corporations obtained benefits from electronic commerce expanding their operations and increasing their earnings.

Sometimes the failure of the strategy is related to the bad implementation or management; it would look for the most outstanding relationships in those good practices to the adoption of strategic tools.

By last, both governments and the private initiative must evaluate the regional economic impact and international from a social point of view, with the objective of generating policies through the linking strategic management tools, those encourage the economic recovery without increasing the gap in socioeconomic inequality.

Our research included papers from the last five years period 2015 to 2020 in order to analyze relevant aspects of the evolution of global trade performance, then about business strategies to synthesize ideas related to the current digital environment besides reviewing recovery strategies, finally because of the recent events originated from the Covid-19 pandemic challenges.

The limitations that were encountered when conducting this research have to do with the scarce information on the topic in regions such as Latin America where knowledge about the impact of the pandemic is barely being generated.

We recommend future research works on the study of the evolution that will generate the Covid-19 crisis to the global value chains and how both organizations and governments are going to reconfigure their structures and strategies.

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