

Changes in control of supplies, production processes and advertising of Acámbaro companies; Gto. derived from the pandemic

Cambios en control de suministros, procesos productivos y publicidad de las empresas de Acámbaro; Gto. derivado de la pandemia

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Abstract

Changes are undoubtedly part of our environment, thus, the COVID 19 pandemic marked a milestone in terms of the way in which companies in the productive sector raise and execute their activities. This article shows how the productive sector has reacted to the new needs that have arisen, as well as the strategies implemented and the acceptance of new methodologies and actions to continue subsisting. With the information presented, it is possible to make conjectures and estimates regarding the changes that are currently used by most companies and that allows them to remain in the competitive market, in addition, the various aspects mainly considered and their comparison of implementation both in the field of supplies, production and advertising are appreciated.

Companies, Supplies, Production, Advertising, Strategy, Changes, Pandemic, Methodologies

Resumen

Los cambios son parte indudable de nuestro entorno, siendo así, la pandemia de la COVID 19 marcó un hito en cuanto a la manera en que las empresas del sector productivo plantean y ejecutan sus actividades. El presente artículo, muestra cómo el sector productivo ha reaccionado ante las nuevas necesidades que se han suscitado, así como las estrategias implementadas y la aceptación de nuevas metodologías y acciones para continuar subsistiendo. Con la información presentada, es posible realizar conjeturas y estimaciones referente a los cambios que son actualmente utilizados por la mayoría de las empresas y que les permite mantenerse en el mercado competitivo; además, se aprecian los diversos aspectos principalmente considerados y su comparativa de implementación tanto en el ámbito de suministros, producción y publicidad.

Empresas, Suministros, Producción, Publicidad, Estrategias, Cambios, Pandemia, Metodologías

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Introduction

Constant changes are part of everyday life, so the need to make periodic adjustments is evident, in order to remain at the forefront in any aspect in which one is immersed. The COVID 19 pandemic marks a before and after, it will now be a reference due to the great impact it had on the way in which the routine activities of each individual are carried out, and, focusing on the context of the productive sector, companies were forced to break schemes and establish new paradigms in order to be able to react to the mismatch of habitual activities with those that previously operated.

Fortunately, the perception of returning to the "normality" that existed prior to the pandemic seems to be getting closer, and that moment has arrived; however, it will be a priority as part of the evolution, to adopt all the advantages and new activities developed during the period in which most of our actions were modified; that is, to continue to take advantage of the technological advantages, adaptations in communication links, the way of interacting, the way of developing, among others; each person will depend on the willingness to implement the positive effects generated by the pandemic.

Objectives

- To determine the changes that occurred in the control of supplies in companies in Acámbaro, Gto. as a result of the pandemic.
- To identify the modifications made by the companies in Acámbaro, Gto. as a result of the pandemic in the acquisition of raw materials.
- To establish the modifications that were made in the companies of Acámbaro, Gto. as a result of the pandemic in the production processes.
- To show the changes that took place in advertising in the companies of Acámbaro, Gto. as a result of the pandemic.

Problem statement

COVID-19 made everyone feel the need to make changes, both in everyday life and in business life; it is therefore necessary to know what changes were made by the companies in Acámbaro, Gto. in terms of supply control, production processes and advertising.

The perception of the changes brought about by the pandemic can be very diverse, so in order to establish reliable parameters that explicitly show the adjustments made in the areas of interest mentioned, it is essential to obtain reliable information that clearly shows the impact on the business sector in Acámbaro, Gto. It is necessary to know the impact of the changes generated and implemented in the companies, and thus to know the actions carried out that contribute and helped the sector to survive, in spite of the changing conditions that have occurred and that are still constantly arising.

Theoretical framework

In the INEGI website (2020), they mention that Acámbaro; Guanajuato has a population of 108 697 inhabitants, also in the same page; but in the section of economic units, they state that to date there are 6067 economic units considering this term as establishments (from a small shop to a big factory) settled in a place permanently and delimited by constructions and fixed installations, in addition in these places the production and/or commercialisation of goods and/or services is carried out (Cuéntame de México, 2021)

In 2020, economic units as well as the entire country were affected by COVID-19, defining the term as the most recently discovered infectious disease caused by the coronavirus (Secretaría de Salud Gobierno de Baja California Sur, 2022) and due to that disease, on 26 March, non-essential activities determined and adhering to federal government strategies were suspended, except for those related to security, health, energy and cleaning services (National Library of Medicine, 2020). Similarly, Harapko (2021) mentions that the COVID-19 pandemic has posed significant challenges to supply chains around the world. Multiple national closures continue to slow or even temporarily halt the flow of raw materials and finished products, disrupting manufacturing.

Also the Food and Agriculture Organization of the United Nations (2022) explains that at the onset of the crisis, food supply chains collapsed, as many countries had imposed restrictions on the cross-border and intra-country movement of goods and people; Alicke, Ed, & Trautwein (2022), on the other hand, reported that in their survey conducted in the second quarter of 2021, they found that companies originally planned to increase nearby offshoring of suppliers to boost supply chain resilience, but ended up increasing their inventories;

In addition, the majority of respondents mention that they have invested in supply chain technologies since 2020 and plan to continue to do so. In parallel, Corporate Transaction Banking (2021) mentions that due to the pandemic and the resulting health crisis, the supply chains of all companies in different sectors have been impacted to a greater or lesser extent depending on their robustness and that, In addition to the above, in 2021, American Express provides that the supply chain in Mexico and the world has been affected by the health crisis caused by COVID-19, which changed the rules of the game for most of the world's markets from one moment to the next. It must now prepare to face the challenges of the "new normal"; however, Sánchez Suárez, Pérez Castañeira, Sangroni Laguardia, & Medina Nogueira (2021) contribute that the Covid-19 pandemic not only impacted process changes, but has been the great accelerator of digital transformation, and the adoption of innovative technologies and processes.

On the other hand, the market will never be the same again, let alone the way of conquering customers [...] consequently every day we live a new scenario; where companies that handled traditional marketing (advertising) are already adapting to the new scenario, as physical shops are exploring social networks and transfiguring their business model (Labrador, Suárez, & Suárez, 2020); therefore the factors that influence decisions about brands are also changing as the trend to "buy locally" accelerates.

Digital commerce has also experienced a boost as new consumers migrate online to do their grocery shopping, an increase that is likely to continue post-crisis (Accenture, 2020), parallel to the above Nielsen (2020), mentions that our global media ecosystem has encountered a serious and unprecedented threat: marketers have reduced advertising investment due to both the economic impact of the COVID-19 pandemic, furthermore the pandemic led advertisers to cut marketing budgets, deprived sellers of advertising space, such as cinemas, of audiences, and put advertisers out of work (El Economista, 2020).

Description of the Method

Methodology to be developed

A quantitative research with a descriptive scope was carried out in Acámbaro, Guanajuato, collecting information on the changes generated in the control of supplies, in the production processes and in the advertising of the companies in this municipality, derived from the COVID 19 pandemic.

The starting point of the methodology was the identification of the problem; consecutively, the structure of a theoretical framework was made; the problem to be solved was posed, and from this, four hypotheses were established, which were duly verified through the research; a probabilistic sample was taken in order to study it, and consequently obtain the results of the research. The information collected was carried out in the city of Acámbaro, Gto., in small and medium-sized companies, with commercial activities, administrative and financial activities, among others, oriented to the changes that took place due to the COVID 19 pandemic, in the control of supplies, in the productive processes and in the publicity of the companies in this municipality.

Research questions

- What changes occurred in the control of supplies in companies in Acámbaro, Gto. as a result of the pandemic?
- How did the enterprises of Acámbaro, Gto. modify the acquisition of raw materials as a result of the pandemic?
- How did businesses in Acámbaro, Gto. change their production processes as a result of the pandemic?

- What changes were there in advertising in the companies of Acámbaro, Gto. as a result of the pandemic?

Hypothesis

Ho. The use of computers and the requisitioning of fewer workers are the changes that occurred in the control of supplies in the companies of Acámbaro, Gto. as a result of the pandemic.

H₁. No computer use and increased worker requisitioning are pandemic-related changes in supply control in firms in Acámbaro, Gto.

Ho. Increase in the quantity of raw material purchases and change of suppliers due to changes in the product/service, are some of the changes that the companies of Acámbaro, Gto. had derived from the pandemic in the acquisition of raw materials.

H₁. Decrease in the quantity of raw material and no change of suppliers because the same product/service was maintained, are some of the changes that the companies of Acámbaro, Gto. had derived from the pandemic in the acquisition of raw material.

Ho. Processes were reduced due to worker infections and the product/service process was modified, these are some of the modifications that the companies in Acámbaro, Gto. made as a result of the pandemic in the production processes.

H₁. Processes were not reduced due to worker infections and the product/service process was not modified, these are some of the modifications that the companies in Acámbaro, Gto. carried out as a result of the pandemic in the production processes.

Ho. Use of social networks and updating of the website, are the changes in advertising in the companies of Acámbaro, Gto. as a result of the pandemic.

H₁. Use of printed media and radio spots, are the changes that occurred in advertising in the companies of Acámbaro; Gto. as a result of the pandemic.

Justification

We are aware of the inherent changes that are part of life, however, sometimes events out of the ordinary occur, such as the COVID-19 pandemic, and for which neither a procedure nor prior knowledge of how to behave was foreseen or established. For this reason, it is convenient to carry out the study described above, because there is no prior knowledge of the effects that arose from the pandemic in the companies of Acámbaro, Gto.

The changes, adjustments and adaptations made during the pandemic were implemented hastily, with a sense of urgency and without space for prior testing or impact analysis, which led to decisions being made in haste and with considerable room for error, a reason that becomes the focus of analysis and social relevance, as the aim is to identify the significance of the results generated by the pandemic, in order to make them known to the general population.

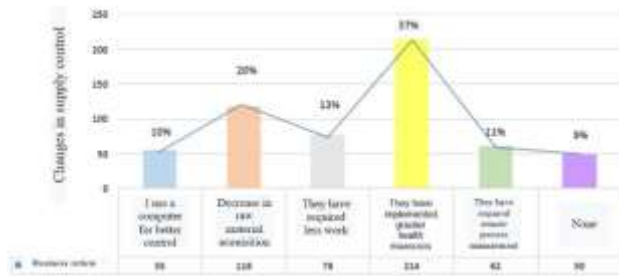
For several companies, the changes implemented allowed them to survive and even helped them to position themselves in a better way, and, on the contrary, many others were victims of the restrictions that were established, unfortunately leading to their demise. In this article, they analyse various actions that were taken in the companies that continue to survive, which indicates that they were the right decisions to allow them to continue in a market as competitive as the business market. For all these reasons, the research fills a gap in knowledge through a methodology established from the beginning of the research, which contributes to the analysis of this social phenomenon that generated multiple impacts and changes, with an important theoretical value.

Working method

Analysis of quantitative results with descriptive scope

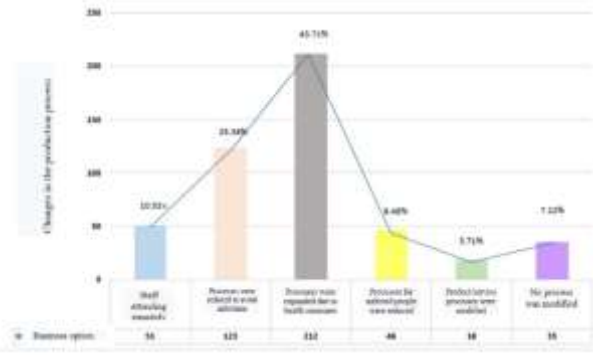
The analysis of results was carried out using the DYANE (Design and Analysis of Surveys) programme, which is an integral computer programme for PC or compatible, carried out in a Windows environment (Santesmases, n.d.), where a database was integrated, which was able to produce graphs expressed by means of basic descriptive statistics.

Results of the analysis



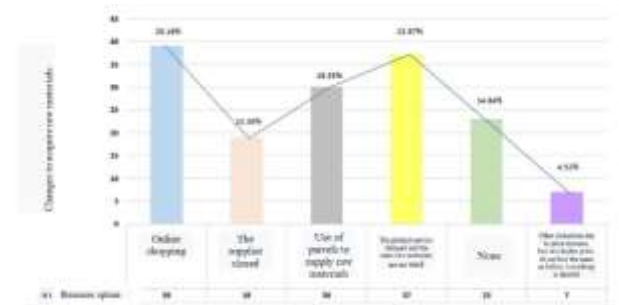
Graph 1 Changes in supply control

In graph 1, it can be seen that the companies in Acámbaro, Gto. have undergone several changes due to the pandemic, where 37% say that they have implemented more sanitary measures, while 20% explain that they have reduced the acquisition of raw materials, however, 13% have required fewer workers, on the other hand, 11% say that they have required remote process management, and 10% say that they have made use of computers for better control, finally, 9% say that they have not made any changes at all..



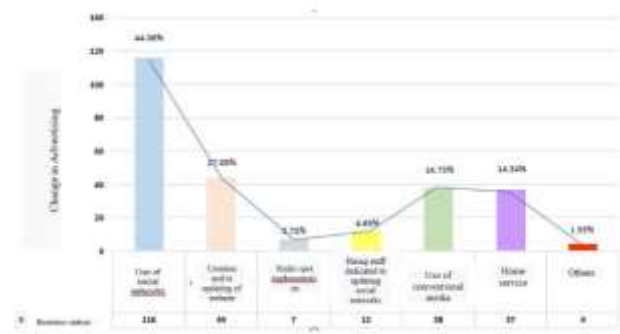
Graph 3 Changes in the production process

Graph 3 shows the trend in the changes made by the companies in Acámbaro, Gto, 43.71% mentioned that they expanded their processes due to sanitary measures, 25.36% said that they reduced processes to avoid contagion, 10.52% said that they changed personnel to work remotely, 9.48% mentioned that they reduced processes due to infected people, and 7.22% explained that no process was modified; finally, 3.71% said that they modified product/service processes, and 3.71% said that they modified the processes of the product/service, and 7.22% said that they modified the processes of the product/service..



Graph 2 Changes in the way of acquiring raw materials

Graph 2 shows the trend in the responses of the entrepreneurs in Acámbaro, Gto, regarding the changes they have made as a result of the pandemic in the way they acquire raw materials, where 25.16% said that they now buy online, while 23.87% explained that they changed the product/service, which is why they do not use the same raw materials, and 19.35% now use parcels to supply their raw materials. 35% now make use of parcels to supply their raw material, however 14.84% responded that they have not made any change, on the other hand 12.26% mentioned that the supplier closed down, and the remaining 4.52% expressed that for other reasons they changed, among them price increase, because they buy more quantity, as well as they do not buy the same as before and that now a good amount of operations are at a distance.



Graph 4 Changes in advertising

Graph 4 shows the changes made by companies in Acámbaro, Gto, In the graph 4, we can see the changes made by the companies in advertising derived from the pandemic, where 44.96% now make use of social networks, on the other hand 17.05% mention that they have created and/or updated their web page; likewise 14.73% make use of conventional media (flyers, newspapers, printed matter, perifoneo); on the other hand 14.34% now implement advertising through their home delivery service, in the same way, 4.65% mentioned they had to hire staff dedicated to updating social networks.

On the other hand 2.72% said they have implemented radio spots, finally 1.55% have implemented other strategies such as avoiding contact with customers, as they are looking for potential customers through sales, i.e. through salespeople they use and take advantage of advertising.

Discussion

Regarding the changes that have taken place in the control of supplies, they now make use of the computer, they have also required fewer workers, however, within the control of supplies they have implemented sanitary measures to prevent contagion; they have also reduced the purchase of raw materials; in addition to this, the changes they have had to acquire raw materials are directly related to the mandatory change they had to make to their products/services; As a result, they do not use the same raw materials; in addition, with the use of computers, they are now purchasing raw materials via the internet and the use of parcels to supply them has increased; it is worth mentioning that some companies were affected because their suppliers closed down, which shows how difficult the pandemic was for some companies.

On the other hand, production processes were greatly affected because some processes were extended due to the COVID-19 health contingency, and on the other hand, in other companies it was necessary for staff to work remotely and thus reduce processes, which shows the impact on the production of their products/services.

Finally, the companies changed the way of advertising, now resorting to the use of social networks, in addition to hiring a person specifically to fulfil the function of updating social networks, as well as creating and updating their website; this covers more than 50% of the organisations that made changes in the way of advertising with technological tools.

Conclusions

Based on the results, it is possible to determine that the productive sector had changes in the way it previously operated; some companies to a lesser extent and others with a significant impact, in which they had to forcefully adapt in order to be able to continue and not disappear in the face of the imminent effects generated by the pandemic. Similarly, what can be appreciated considerably is the fact of having implemented strategies to safeguard people's integrity, which establishes health and communicative interaction between individuals that make up a society as a priority, by means of new forms of communication, taking advantage of those currently provided by technology. Finally, there is no doubt about the importance of technology nowadays, and thanks to which it is possible to use it and adapt it to changing circumstances for favourable purposes.

References

- Accenture. (28 de abril de 2020). *COVID-19 cambiará para siempre el comportamiento de los consumidores*. Recuperado el 12 de octubre de 2022, de Accenture: <https://www.accenture.com/cl-es/insights/consumer-goods/services/coronavirus-consumer-behavior-research>
- Alicke, K., Ed, B., & Trautwein, V. (2022). *Cómo la COVID 19 está remodelando las cadenas de suministro*. Recuperado el 5 de octubre de 2022, de Mckinsey & Company: <https://www.mckinsey.com/featured-insights/destacados/como-la-covid-19-esta-remodelando-las-cadenas-de-suministro/es>
- American Express. (18 de octubre de 2021). *Retos de la cadena de suministro en México tras la pandemia*. Recuperado el 5 de octubre de 2022, de American Express: <https://www.americanexpress.com/es-mx/negocios/trends-and-insights/articles/retos-de-la-cadena-de-suministro-en-mexico-1/>
- Banca Transaccional Corporativa. (21 de mayo de 2021). *BBVA*. Recuperado el 5 de octubre de 2022, de La solidez de la cadena de suministro, un factor clave de las empresas para superar la COVID-19: <https://www.bbva.com/es/la-solidez-de-la-cadena-de-suministro-un-factor-clave-de-las-empresas-para-superar-la-covid-19/>

Cuéntame de México INEGI. (2021). *Cuéntame de México*. Recuperado el 5 de octubre de 2022, de Cuéntame de México, Glosario: <https://cuentame.inegi.org.mx/glosario/u.aspx?tema=G>

El Economista. (25 de junio de 2020). *El negocio de la publicidad se está volviendo menos cíclico y más concentrado*. Recuperado el 12 de octubre de 2022, de El Economista: <https://www.economist.com/business/2020/06/25/the-advertising-business-is-becoming-less-cyclical-and-more-concentrated>

Harapko, S. (2021 de febrero de 2021). *Como repercutió COVID 19 en la cadena de suministros y qué es lo que sigue*. Recuperado el 5 de octubre de 2022, de EY Building a better working world: https://www.ey.com/es_mx/supply-chain/how-covid-19-impacted-supply-chains-and-what-comes-next

INEGI. (2020). *INEGI*. Recuperado el 5 de octubre de 2022, de División municipal: https://cuentame.inegi.org.mx/monografias/informacion/gto/territorio/div_municipal.aspx?t

Labrador, H. E., Suárez, J. J., & Suárez, S. A. (2020). Marketing en tiempos de crisis generado por la COVID-19. *Revista espacios*, 199-206. Recuperado el 12 de octubre de 2022, de <https://revistaespacios.com/a20v41n42/a20v41n42p17.pdf>

National Library of Medicine. (2020). *Epidemiología de COVID-19 en México: del 27 de febrero al 30 de abril de 2020: National Library of Medicine*. Recuperado el 30 de 09 de 2022, de National Library of Medicine: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7250750/#:~:text=Se%20trataba%20de%20un%20mexicano,hab%20viajado%20recientemente%20a%20Italia>.

Nielsen. (mayo de 2020). *Navegar por los desafíos de la publicidad digital durante una pandemia mundial*. Recuperado el 12 de octubre de 2022, de Nielsen: <https://www.nielsen.com/es/insights/2020/navigating-the-challenges-of-digital-advertising-during-a-global-pandemic/>

Organización de las Naciones Unidas para la Alimentación y Agricultura. (2022). *Nueva enfermedad por coronavirus (COVID-19)*. Recuperado el 2022 de octubre de 2022, de Qué implicaciones tendrá la COVID-19 —ahora y en el futuro— para la producción alimentaria, las cadenas de suministro agrícola, pesquera y acuícola y los mercados: <https://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/es/>

Sánchez Suárez, Y., Pérez Castañeira, J. A., Sangroni Laguardia, N. C., & Medina Nogueira, Y. E. (2021). Retos actuales de la logística y la cadena de suministro. *Scielo*, 1. Recuperado el 5 de OCTUBRE de 2022, de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1815-59362021000100169#aff2

Santesmases, M. (s.f.). *DYANE Versión 4*. Recuperado el 12 de octubre de 2022, de Diseño y Análisis de Encuestas: <http://www.miguelsantesmases.com/linked/dyane%20versi%F3n%20%20-%20cap%EDtulo%201.pdf>

Secretaría de Salud Gobierno de Baja California Sur. (2022). *Preguntas frecuentes COVID -19*. Obtenido de ecretaría de Salud Gobierno de Baja California Sur: <https://coronavirus.bcs.gob.mx/#:~:text=Today%20no%20se%20ha%20confirmado,en%20contacto%20con%20ellos>.