



# Approach to digital transformation in a group of SME hotels in the Colombian Caribbean

Acercamiento a la transformación digital en un grupo de hoteles Mipymes del caribe colombiano

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 0000-0002-0999-5468. D. in International Relations, Business and Diplomacy. Research Professor at the University Sergio Arboleda. Email: [jorge.lechuga@usa.edu.co](mailto:jorge.lechuga@usa.edu.co).

**Jorge Isaac Lechuga-Cardozo**

**Adriana Uribe Uran**

D. in Administration. Vice Rector of the Caribbean Campus of Universidad Sergio Arboleda. Email: [adriana.uribe@usa.edu.co](mailto:adriana.uribe@usa.edu.co)

**Christian Carvajalino Pérez**

Master in Marketing. Dean of Prime Business School at Universidad Sergio Arboleda, Barranquilla. Email: [christian.carvajalino@usa.edu.co](mailto:christian.carvajalino@usa.edu.co)

**Marceliano Payares Ayola**

D. in Management Sciences. Research Professor at Universidad Sergio Arboleda. Email: [marceliano.payares@usa.edu.co](mailto:marceliano.payares@usa.edu.co)

**Rodolfo Rodríguez Cadena**

PhD Candidate in Complex Thought. Research Professor at Universidad Sergio Arboleda. Email: [rodolfo.rodriguez@usa.edu.co](mailto:rodolfo.rodriguez@usa.edu.co)

**Katherine Piscioti Quintero**

D. candidate in Administration. Coordinator of Marketing and International Business at Universidad Sergio Arboleda. Barranquilla Headquarters. Email: [Katherine.piscioti@usa.edu.co](mailto:Katherine.piscioti@usa.edu.co)

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## Abstract

The objective of the research is to describe the capabilities for digital transformation of a group of MSME hotels in the Colombian Caribbean. The methodology corresponds to the mixed approach. An instrument was designed for the two variables and was applied to a sample of forty (40) hotels in the cities of Barranquilla and Santa Marta; this questionnaire had forty-four (44) items for the digital transformation variable and thirty-four (34) for the digital consumer behavior variable. It was found that there is an absence of advanced digital knowledge, there is no access of employees to training plans in digitization and absence of cybersecurity measures, data analytics is done manually and there is an absence of customer loyalty programs such as CRM and finally there is a lack of knowledge of hotel managers in relation to digital technologies such as email marketing, LinkedIn, Google Ads, YouTube, Vimeo and others. It is concluded that the commercial management of hotels requires training processes and training of employees for the efficient management of digital technologies in order to contribute to the strategic relationship with the customer.

**Keywords:** *Analysis of consumers, hotels, digital transformation.*

## Resumen

El objetivo de la investigación es describir las capacidades para la transformación digital de un grupo de hoteles MiPymes del caribe colombiano. La metodología corresponde al enfoque mixto. Se diseñó un instrumento para las dos variables y se aplicó a una muestra de cuarenta (40) hoteles de las ciudades de Barranquilla y Santa Marta; dicho cuestionario tuvo cuarenta y cuatro (44) ítems para la variable transformación digital y treinta y cuatro (34) para la variable comportamiento digital del consumidor. Se encontró que existe ausencia de conocimientos digitales avanzados, no hay acceso de los colaboradores a planes de capacitación en digitalización y ausencia de medidas de ciberseguridad, la analítica de datos se realiza de forma manual y existe ausencia de programas de fidelización con el cliente como CRM y por último existe desconocimiento de los gerentes de los hoteles en relación con tecnologías digitales como email marketing, LinkedIn, Google Ads, YouTube, Vimeo entre otros. Se concluye que la gestión comercial de los hoteles requiere de procesos de capacitación y entrenamiento de los colaboradores para la gestión eficiente de las tecnologías digitales con el objetivo de contribuir en el relacionamiento estratégico con el cliente.

**Palabras Clave:** *Análisis de los consumidores, hoteles, transformación digital.*

## Introduction

Recent studies emphasize that digital transformation has a positive effect on the growth, productivity and competitiveness of MSMEs (Katz and Suter, 2009; Private Competitiveness Council, 2020), stating that it stimulates access to local and international customers and cost reduction by simplifying internal processes, improves customer experience, increases brand visibility and serves as input for better decision making (El Espectador, 2020; Organization for Economic Co-operation and Development - OECD, 2019).

In this regard, when studying the figures of the Private Competitiveness Council (2020) and the Digital Economy Observatory cited in Portafolio (2019): 8% of companies in Colombia use the internet of things, 3% perform 3D printing, 1% use robotics in their processes and 22% of companies were getting ready for digital transformation by 2020.

This study finds its core and foundation in the fact that in Colombia there is a low level of adoption of digital transformation in the company generated by the lack of investment in training employees in digital capabilities, processes and new business models (Montenegro et al. 2017) and organizational changes that promote digital culture (Haskel and Westlake, 2018; OECD, 2019). In this sense, the following research question is posed: What are the indicators for the adoption of digital technologies in a group of MSME hotels in the Colombian Caribbean? Thus, the objective of this proposal is to describe the indicators of adoption of digital technologies of a group of MSME hotels in the Colombian Caribbean. Thus, then, a study is conducted in which transformation and digital consumer behavior are identified as variables, which constitutes a mixed approach research through the use of the survey technique.

The research corresponds to a non-experimental, cross-sectional design and reaches a descriptive level. An electronic questionnaire was designed as an instrument for the collection of information and was applied to an intentional sample of 40 MSME hotels in Santa Marta and Barranquilla. As in all research, some limitations arise in this research that are important to mention: the collection of data due to the conditions of the current sanitary crisis; on the other hand, the limited time for the execution of the different activities proposed.

## Development

### *Digital Transformation*

According to Verhoef et al (2021) digital transformation has impacted consumer behavior by increasing expectations for innovation in business, thus exerting pressure on traditional business models and markets.

The digital transformation represents a change in the entire company that leads to the de-

s development of a new business model (Iansiti and Lakhani, 2014; Kane et al., 2015; Pagani and Pardo, 2017), which may be new to the company or industry. Firms compete and can gain a competitive advantage through their business models. Casadesus-Masanell and Ricart (2010), define it as companies create and deliver value to customers, and then convert the payment received into profit (Teece, 2010, 173). Digital transformation introduces a new business model by implementing a new business logic to create and capture value (Pagani and Pardo, 2017; Zott and Amit, 2008).

On the other hand, Schwertner (2017) defines digital business transformation as the application of technology to build new business models, processes, software and systems that result in more profitable revenues, greater competitive advantage and increased efficiency. By transforming business processes and models, companies achieve workforce empowerment, efficiency, innovation and personalization of customer experiences.

On the other hand, Henriette et al (2016) define digital transformation, also called digitization, as a social phenomenon or cultural evolution and for companies as an evolution or creation of the business model. It is also a fundamental transition of society, driven by so-called "digital" generations (including Generation Y, born between 1980 and 2000, and Generation Z, born from the 2000s onwards), for whom digital technologies are deeply embedded in their culture and daily practices. In this context, companies must be able to adapt by changing their business model or developing a new one.

On the other hand, Bacco et al. (2020) define digital transformation as a process that encompasses significant changes in both social and economic domains due to the adoption of digital technologies. Orekhova et al (2018) add that the technological drivers of modern transformation are mobility, social networks, cloud computing, network sensor, internet of things, artificial intelligence and technologies for working with data, by creating everything smart which includes businesses and hotels, generates a range of opportunities for businesses, consumers and society in general.

In addition, digital transformation uses digital technologies that enable interactions between customers, suppliers and competitors (Singh and Hess, 2017). Thus, technologies facilitate the achievement of competitive advantage by leveraging existing capabilities or providing new ones (Liu et al., 2011). Therefore, digital transformation is intrinsically linked to business model change strategies as a product of executing digital technologies (Sebastian et al., 2017). In summary, digital transformation is a phenomenon with broad implications on the entire structure of the company, above all, the core of the company's business model is subject to change through the use of digital technology (Agarwal et al., 2010; Iansiti and Lakhani, 2014; Li et al, 2016). In pursuit of digital transformation, companies seek and implement business model innovation.

### ***Digital transformation in hotels***

With regard to the hotel sector, digital transformation affects all aspects of the business

including business processes (Verevka, 2019; Uribe-Urán, 2014), hotel management must develop thoughtful marketing strategies and use digital technologies to avoid falling behind their competitors (Caliskan, Özen, & Ozturkoglu, 2020). Consumers use a variety of social networks to share travel-related experiences, interact with others, connect with people from different destinations and purchase related travel (Varkaris and Neuhofer, 2017), thus, the development of a personalized customer journey is required, which can provide the basis for generating a unique and positive digital experience for each guest (Nozdreva and Churakova, 2021). Thus the success of the digital transformation of hotels will be given by a digital mindset of the team, clear definition of digital goals of the company, investing in digital technology skills, and management skills such as digital leadership (Lam and Law, 2019; Natu and Kurniasari, 2019).

### ***Maturity model for digital transformation***

In order to understand the relationship between MSMEs and ICTs and to identify the needs and new opportunities for the entities involved in supporting the business development of these companies in Colombia, Mintic and Innpulsa Colombia created the model in 2013. Thus, the digital transformation of a MSME requires combining technological elements (digitization of the business) with other strategic and cultural elements that can be acquired with planning, training and experimentation.

Likewise, it is required that the MSMEs identify key processes in the generation of value within their operating model, which allows them to generate an effective digital transformation, through the processes that make up the value chain, i.e., level of digitization (digital business) and elements on which it is based (enablers for digital transformation) (MinTIC - Innpulsa Colombia, 2019, p. 17).

### **Final thoughts**

The following are the findings of the main indicators of adoption of digital technologies detected when applying the instrument designed for this group of hotels:

#### ***People and Digital Culture***

This item seeks to measure the level of training for digitalization and flexibility to adapt to change, which leads to a digital business culture. In this regard, the findings were as follows: More than 80% of the population has basic knowledge of the benefits of digitization, as well as of digital tools such as how to copy a file or send an e-mail with a file. For intermediate activities such as using basic formulas in a spreadsheet, creating electronic presentations with presentation software and transferring files between computers and/or devices, these proportions are above 80%. With respect to more advanced digital skills, such as connecting and installing new

devices and find, download and install software, use of more advanced information systems, less than 25% of the population has this knowledge. More than 90% of the total population shows a clear disposition towards digital transformation, whose potential is conditioned by the low participation of companies in the design and framework of local digital education agendas. In this regard, it would be of great interest the participation of these people from the hotel industry in local agendas and in their training spaces, which also have the connotation of free of charge for micro, small and medium entrepreneurs in the region, in workshops for the insertion in topics related to digital skills.

### ***Processes***

This item seeks to measure the level of susceptibility of internal processes (Business Management, Employees, Environment Agents, Customers) to be improved by applying digital tools. In this regard, the findings were as follows: Online business presence increased during the COVID-19 crisis. The Internet became an indispensable tool to mitigate the effects, to continue providing services and offering products, as evidenced by the significant increase in the number of business websites compared to the previous year. Platforms were key to the accelerated growth of e-commerce. Postal reliability and bankability are the main challenges facing the region in terms of e-commerce readiness.

One of the great challenges facing the hotel sector is related to the adoption of digital technologies in the process for the provision of services. In the sample analyzed, there are no major gaps in terms of basic indicators, such as the use and adoption of digital tools available for the management of the company; this is evident given that 83% of respondents issue electronic invoices, 67% of respondents use accounting software and 50% of them use other specialized tools; As for the digital tools available for communication and collaboration among employees, this is an indicator of evident growth demonstrated by the fact that 100% of respondents use instant messaging, 67% use e-mail, 50% handle meetings via videoconferencing; with respect to the digital tools available for communication and collaboration with suppliers and/or agents in the environment, 92% of respondents use instant messaging and 92% use e-mail.

There are differences that are more evident, and that represent one of the great challenges of the sector, in indicators such as the use of the Internet to make sales through digital channels; despite having deployed digital sales channels through intermediate online platforms, within the companies, only 50% of the sample continues to maintain traditional customer service channels such as (mailbox or online chat, direct contact, 24/7 attention, among others).

The item referring to customer information provided through the different platforms (booking, hotels.com, among others) and own channels, the figures show that only 58% implement them; as for the satisfaction perceived by customers and the fulfillment of their expectations, 58% do so through intermediate platforms and 33% through a suggestion box. In this part of the sample analyzed, it was found that in general there is a low level of customer satisfaction.

level of training in digital skills for workers, given that 92% have not had access to training, and only 25% state that they are planning their implementation and are in the process of internal development.

In reference to the commitment to cybersecurity and any type of measures related to the security of the company's information, the dimensions with the greatest lag refer to organizational (e.g. a corporate cybersecurity strategy) and technical aspects (e.g. definition of standards and establishment of computer response centers); in this respect, the only traditional measures taken are the frequent updating of software (67%), the use of antivirus 75%, backup copies 50% and storage of information 58%. It is clear that in this respect it is necessary to generate confidence in e-commerce to encourage its use.

### ***Data and Analytics***

This item seeks to measure the existence of data collection and analysis through digital media and channels to determine the level of relationship with its customers. In this regard, the findings were as follows: To foster trust in e-commerce, governmental factors are crucial. The country shows varying degrees of progress in the adoption of relevant regulatory frameworks for this type of activity. In particular, a greater degree of progress has been made in legislation related to online consumer protection and personal data protection. There is significant potential for improvement in terms of public policy and regulation; the heterogeneity in the adoption of regulatory frameworks in the region is a barrier to investment, which is why it is necessary to modernize and harmonize the regulatory frameworks, aligning them with international best practices and, in this way, strengthen the regional market.

Regarding the way in which the data of the companies surveyed is collected through their own business activities, the way in which this data is collected is automated in 50%. Within this range, 67% of this data is processed manually, and 33% is processed in an automated way; it is also observed that 83% of the companies surveyed do not have CRM (customer management software) to manage their customer data, which is a higher figure than that found in other regions in Colombia.

On the other hand, when analyzing the index of data that are stored in a single comprehensive system, it can be identified that the online services component reaches 83%, being the one with the greatest progress, such as the implementation of a data management policy, which reaches 75%. The values in terms of human capital and infrastructure show the following: in the case of the execution of reports, control panels or dashboards to visualize data, 58% do it and 42% still show resistance, and in terms of its use for the creation of digital content through digital technology platforms reaches a positive result in 50% and a negative one in 50%.

### ***Digital Technology***

This item seeks to measure the use of technologies and infrastructure for the digital transformation of the company. In this regard, the findings were as follows: In relation to the adoption of technologies.



emerging in companies belonging to this sector, show that there are some differences with the adoption of Big Data, machine learning and artificial intelligence.

The sample examined shows a significant gap in the generation of ICT indicators, especially in relation to the incorporation of digital technologies within the company. Comparing the findings in this part of the sample with similar reports at the national level, it can be affirmed that the gaps found continue to be a great challenge not only for the analyzed sector but also at the national level. It was also found that 50% of the companies that make up the analyzed part of the sample have the appropriate technology and digital infrastructure to operate their processes; more than 65% use a web page or landing page as an information channel. For intermediate activities such as search optimization, the finding is less than 50%. With respect to the compatibility of the web experience across all devices, pages and customer touch points, 67% of the companies examined have this in place.

A percentage greater than or equal to 65% reported never having developed Email Marketing campaigns through specialized platforms, therefore, the socialization of news and relevant information through a blog or online community is almost null with a negative result of 75%. The use of digital social tools varies regularly according to the level of digital knowledge of the company's collaborators, thus showing a non-regular variable; the use of a catalog of digital products and services reaches 67%, the use of the Facebook page 83%, the appropriation of the Facebook Marketplace is unknown and unused in 83%, the use of company profile in the social network Instagram Commercial reaches 67%, however the generation of valuable content is partial, finding that 58% do it and 42% do not do it; the online reservation button indicator through this social network was totally, i.e. the finding shows that it is 100% unknown by the companies, which indicates that it is essential to improve the appropriation and use of the functionalities of each social network adapted to the particular sector.

Regarding the use of WhatsApp Business to communicate and serve customers, it was found that 83% use it as an instant communication tool; it should be clarified that 50% of the responses in WhatsApp Business are automated to provide better customer service. The analysis of this part of the information also showed the non-use of social tools such as LinkedIn, Twitter and TikTok in more than 90% to communicate information of interest to users and potential customers.

Similarly, a low level was found in the execution of paid campaigns on Facebook/Instagram Ads with a figure of 67% and in the execution of paid campaigns through Google Ads it was found that 83% do not do so. As for the achievement of organic and paid positioning, more than 65% do not know. The use of the Google my Business directory to position the location of your company is achieved in 75%, and the use of Analytics for the analysis of statistics of digital users was found that 58% monitor the information, and 42% of those who do not.

With respect to the creation and generation of digital content, it is not common for them, therefore, the execution of audiovisual content through platforms such as YouTube/Vimeo/IGTV/Face-

book Watch is unknown to 75% of respondents. The values regarding the use of Intermediate Online Booking Platforms such as booking, despegar, among others, is used by the majority of respondents, reaching 75%, therefore, the indicator of the online payment offer is partial among the companies.

The values showed that 83% of the information provided to users obtained from CRM data lacks personalization and that benchmarking studies as a tool for exhaustive analysis of the competition with some tool or methodology are carried out on a recurring basis in 75% of the companies.

## Conclusions

From the previous sections, it has been possible to understand the current state of the indicators of digital technology adoption in a group of MSME hotels in the Colombian Caribbean, and, based on the opinions of the respondents, what is the situation with respect to digital transformation. In short, based on the results obtained from the surveys, some general conclusions can be drawn.

In relation to the people and digital culture dimension, the majority of respondents say they have basic technological skills, however less than 25% of respondents have the ability to connect and install new devices and find, download and install software, use more advanced information systems.

Regarding the process variable, only 50% of the respondents handle meetings via videoconferencing. 50% of respondents maintain traditional customer service channels. Only 58% of respondents use information from platforms such as Booking. Likewise, 58% of the respondents track customer satisfaction and expectations through intermediate platforms. 92% of respondents have not accessed training in digital skills and only 25% state that they are planning to do so through the internal people development process. Weaknesses are noted in the implementation of cybersecurity measures with special attention to organizational and technical aspects.

With respect to data and analytics, it is evident that 67% of the data processed by these hotels is done manually, and 83% of the hotels surveyed do not have a CRM program.

In relation to digital technology, 65% of the surveyed hotels lack email marketing campaigns, only 58% of the hotels are generating valuable content through social networks, the Marketplace booking button is unknown by all hotels and other alternative networks such as LinkedIn and Twitter are used very little. 83% of the hotels do not run paid campaigns through Google Ads. 75% of the surveyed hotels are unaware of the execution of audiovisual content through platforms such as YouTube/Vimeo/IGTV/Facebook Watch.



Finally, we can affirm that the present research serves as a preliminary step for future lines of research that include empirical research aimed at deepening the knowledge of digital technology adoption indicators. With this in mind, it is considered appropriate to give continuity to this study by proposing as future lines of work the development of an empirical research that includes statistics on the use and appropriation of digital technologies used by hotels, which can provide quantitative and statistically relevant data.

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