



Content list available at:

<https://journals.carc.com.pk/index.php/CRISS/issue/view/4>

# CARC Research in Social Sciences

Journal homepage: [journals.carc.com.pk](https://journals.carc.com.pk)

## Technology Adoption for Entrepreneurs

Huma Imdad\*

Institute of Management Sciences - Pakistan



### ARTICLE INFO

#### Article history:

Received: December 10, 2022  
 Revised: March 19, 2023  
 Accepted: April 18, 2023  
 Published: June 30, 2023

#### Keywords:

Business risks  
 Customers  
 Entrepreneurs  
 Technology

### ABSTRACT

The paper analyzes the impact of adoption of technology on the entrepreneurs based on a qualitative analysis, by utilizing interviews conducted with respect to 12 entrepreneurs. The study showed that there are great many advantages of technology adoption as it helps in better marketing approach and in reaching maximum number of customers. Moreover, it offers entrepreneurs with opportunities to initiate their businesses with minimum resources, which makes it easy to overcome business risks and threats.

Copyright © 2023 CARC Research in Social Sciences. Published by Center for Advocacy Research & Communication – Pakistan. This is an open access article licensed under CC BY:

(<https://creativecommons.org/licenses/by/4.0>)

## 1. INTRODUCTION

Digital innovation drives the development of the economy, through the creation of applications and services in different sectors, which leads to transformations, creating opportunities for new business models and markets, and driving transformation in the economy and society, including jobs and trade. With respect to entrepreneurship, two technological pillars; digitization and interconnection, complemented by a growing ecosystem of interrelated technologies, have driven the digital transformation. Technologies underpinning today's digital transformation include cloud computing, open source software like Hadoop, robotics, grid and neural computing, virtual reality, etc. Some of these have applications in almost all sectors of the economy and can be considered true "general purpose" technologies [4].

However, digital technologies can affect the dynamism of companies and entrepreneurship. This raises important questions at the intersection of digital technologies and entrepreneurship, to investigate what is the role of ICT as a driver of innovation for these entrepreneurship or small businesses [3].

In this way, the present study is focused on knowing what factors, internal or external to the company, affect the adoption of digital innovations in entrepreneurs and how they make adoption decisions. We are interested in knowing if the decision and evaluation is part of digital transformation strategies, or corresponds to disjointed initiatives (instinctive). In addition, relate the adoption of IT to improvements in business performance, in terms of sales, opening of new markets and/or customers.

The Research Questions are:

- What is the perception of entrepreneurs regarding the importance and impact of digital technologies in business development?
- What factors influence the adoption of digital technologies in entrepreneurs?
- What are the effects of adopting this type of technology on the performance of the entrepreneurs?
- What is the relationship in the adoption of technologies and transformation strategy digital in entrepreneurs?

## 2. LITERATURE REVIEW

Digital transformation is an opportunity to be welcomed, but it does present certain challenges that must be managed. In general terms, digital transformation is changing the world at a rapid pace and faster than many laws and regulations have evolved. Based on a survey of executives, managers, and analysts from 4,800 companies in 129 countries and 27 different industries, the study, by

\* **Corresponding author:** Huma Imdad, Institute of Management Sciences - Pakistan

E-mail: [ihumaone@gmail.com](mailto:ihumaone@gmail.com)

#### How to cite:

Imdad, H. (2023). Technology Adoption for Entrepreneurs. CARC Research in Social Sciences, 2(2), 29–35.

DOI: <https://doi.org/10.58329/criss.v2i2.14>

Acs et al., 2009, found that nearly 40% of respondents from less digitally mature companies (what we call "early-stage companies") reported that their business uses digital technologies moderately or heavily [1]. The results of another study, show that companies still do not feel ready for transformation, there is a lack of a culture of digital transformation that encourages risk taking to support digital innovation [2].

An MIT study revealed that simply implementing or using digital technologies is not enough. Firms must complement the different digital technologies with the capabilities of their work teams, processes and functions to achieve an important commercial advantage, for which the degree of digital maturity plays a key role in the digital transformation strategy [6]. Based on a survey of executives, managers, and analysts from 4,800 companies in 129 countries and 27 different industries, the study, found that nearly 40% of respondents from less digitally mature companies (what we call "early-stage companies") reported that their business uses digital technologies moderately or heavily, but only 15% reported that their business has a clear digital strategy [7].

Likewise, another study found that early-stage companies often fall into the trap of being technology-focused and therefore only focus on using ICT to improve their operations, and not on the company's ability to improve their operations. implement technology in an innovative way rethinking the strategy, culture and talent to achieve business success [8].

### 3. Methodological Aspects

The study used the SERCOTEC entrepreneurs as a universe, with the unit of analysis being the entrepreneurs who applied for the Emprende program during 2021, which includes the Capital Semilla Emprende and Capital Abeja Emprende instruments (excluding beneficiaries from the Hairdressing and Collective locomotion sectors). The Capital Semilla Emprende instrument aims to support the start-up of new ventures, presented by people who have a business project and the Capital Abeja Emprende instrument aims to support the start-up of ventures presented by women. The Emprende Program finances the following activities: technical assistance, training, marketing, accompaniment and investments necessary to carry out the project.

The study has adopted a qualitative approach. Whereby, the collection of qualitative information corresponded to the application of semi-structured interviews. The interviewees were selected based on the Sercotec sampling framework, selecting a group of entrepreneurs who were beneficiaries of the Emprende program, taking as criteria the location or region, type of entrepreneurship and use of digital technologies.

The focus of the interviews was to investigate and deepen the adoption of digital strategies in entrepreneurs, and their relationship with the adoption of digital technologies. For the analysis of the interviews, it was used content analysis, a process that allows extracting information through categorization or coding in analytical dimensions. For more information, the guidelines for the questionnaire can be found in the annexes. For the collection of qualitative information through the interviews, a questionnaire format was used. storytelling, in which the interviewees and the interviewer engage in a conversation about the subject of study.

The interviewees were selected based on an intentional sampling strategy from the SERCOTEC Regional Directorates of the Metropolitan Region, who contacted entrepreneurs from the Capital Semilla Emprende and Capital Abeja Emprende programs who had adopted some digital technology. for your entrepreneurship. In this way, the information gathering was carried out for 12 entrepreneurs, during the month of March 2021.

### 4. RESULTS AND ANALYSIS

The collection of qualitative information corresponded to the application of interviews of twelve entrepreneurs from the Metropolitan region. The ventures are mostly businesses in the initial stage, that is, in the first 2 years of existence, in which between 1 and 3 people are involved in all their operations and functions. For this reason, they have a low level of productivity, reflected in a low availability of products or services for customers. In relation to the digital technologies used, in general these are adopted because they allow them to minimize operating costs, improve response times, and flexibility in the hours of dedication to productive activity, service and marketing, a function that is often performed by a single person. In particular, the analysis of interviews focused on three dimensions of analysis, such as:

- Innovativeness or Technological Adoption, defined as the types of ICTs adopted and the perspectives of the entrepreneur, their initial motivations for adoption, such as talent, skills, technologies and assets.
- The technological adoption process, focused on three moments, that is, the evaluation, the decision and the implementation.
- The effects of the adoption, both positive factors that have improved the business, as well as the obstacles and negative factors that they have had to face.

The main findings for each of these dimensions are detailed below.

#### Innovativeness Module, Technological Adoption

From the analysis of the interviews, in the adoption of digital technologies, it is observed that most of the technologies acquired and implemented by the entrepreneurs are the use of web pages, digital marketing, front office, e-commerce and electronic payments. These technologies are part of the business strategy, that is, they are their only way of marketing and contacting potential clients, and they work from the beginning, from the stage of formulating the business idea. At this time the entrepreneur assumed this format which has been perfected over time, incorporating new technologies.

From the findings of the study, it is found that for these purposes, the use of the most popular social networks and their applications such as Facebook fan page and market, Mercado Libre, Instagram and WhatsApp. In this way, the technologies are segmented according to the purpose of use: In relation to the digital marketing of their products, the favorite technologies are Facebook, Instagram, the Google Adwords application: "Yes, we have all the social networks, Instagram, fanpage, what else? Mail. We upload videos to social networks, we comment on the treatments we are doing or the types of exercises that are done, or the classes"

(Entrepreneur, David). In the tourism sector, they are the most used, "I publish the trail, the activity, the duration, what the tourist package contains and the reservations of the contact and information on my website, on Facebook and on Instagram" (Entrepreneur, Los Lagos) and Google Adwords, "maybe we use Google AdWords there...so that when you put what to do in Frutillar, you get the Kayak del Lago page" (Entrepreneur, Los Lagos).

For the commercialization of products or services, the entrepreneurs indicate "through the internet (Facebook: fanpage) and we are going to deliver it to people...on the fanpage we did the same campaigns and paid to generate more traffic to the page" (Entrepreneur, Podence). Regarding online marketing, "a plugin that is with Mercado Libre. Then you can put the plugin on your web page and it takes you to your Mercado Libre page or to your Mercado Libre ads." (Entrepreneur, Podence). And for direct transfers there are different options such as direct bank transfers, webpay and transbank. On a smaller scale, there are entrepreneurs who have chosen to do it directly "through the web, because we implemented shopping cart and all that on the internet and we are starting with that" (Entrepreneur, David).

On a smaller scale, the use of Analytics, an application that allows knowing which people are looking for their products or services, is observed. Finally, in only two cases did we find the use of software to improve business management, one with success. "I have a software that makes me, I mark the product with the bar codes, enter the stock and as you sell, you make a closing at night and the closing at night lowers the stock" (Entrepreneur, David), but for the second, the use of software was very expensive in relation to its sales, so it was not convenient, as he tells us: "Until last year we had software called Bsale, which we used to record everything we did. This year we stopped using it... It's that they charge you for invoicing and later, the remuneration wasn't that much and the cost was higher, so that's where we stopped using it" (Entrepreneur, Podence).

It is relevant to analyze the implementation of web pages, which have dissimilar levels of use by entrepreneurs. Most of these applied for SERCOTEC funds to build them (through CODESSER, as indicated), but in several cases they were left unused due to a lack of basic knowledge in the administration of this technology. Thus, a group of interviewees indicated that they had implemented it but do not have the knowledge to update information, news and photos, nor change the products or services offered in real time. In this way, every time they want to change something they would have to hire an external provider, which means a cost that they are not willing to assume, "that was the problem, because he didn't train us but rather he said now, they have to do this, this and this, but it was super lightly" (Entrepreneur John), an aspect that also reinforces another entrepreneur about the importance of training" but handling it itself is the issue. So I want to train much more on how to know how to use my website more, handle Facebook a little more, for example" (Entrepreneur, Los Lagos).

#### **Adoption Process and DT Strategy Module: Assessment, Decision and Implementation**

This dimension analyzes the process by which the entrepreneur evaluates, decides and finally implements the technology in their business. It is important to highlight that this process is not presented in clear stages, as it could be in larger companies, but rather they are mixed and related to the type of business under development. It is then, a

basic strategy founded to minimize sales and marketing costs to the maximum, as well as to support the entrepreneur's multifunction.

For analytical purposes, we separate these three stages, where the initial stage of evaluation is a moment of rational reflection on the problem to be solved, of knowledge and approach to the technology that would supply the detected need, its possible uses or profit for the business and its costs and suppliers. The decision to acquire a certain digital technology, understood as the moment of selecting the technology, based on the information collected in the evaluation stage, and, finally, the implementation, is the way in which the chosen technology was finally adopted [10].

#### **Approach to DT**

This approach is linked to prior knowledge or experience with certain technologies, which are of low investment cost and accessible to the general public, such as Facebook, Instagram, Google and which is confirmed in this quote, "I worked in an online company that sold stationery items, cafeteria items, and toiletries, so the orders arrived on a page and one simply dispatched, just made the invoice and dispatched. And I said of course, behind closed doors, you don't need to serve customers, or be there and if you don't sell anything you have to be the same all day. Instead, I can work at night, I can work during the day, I can work the hours I want" (Female entrepreneur, Kate).

This knowledge or personal search demonstrates an innovative culture in the entrepreneur, which motivates them to investigate, update themselves on new trends and applications and finally adopt new technologies, as this entrepreneur points out, "I got advertising on Facebook, make your website alone, wix.com. I got in and said already. Actually, it is super intuitive, you say now, I want to do this and it seems super easy for you to do it" (Female entrepreneur, Lena). In addition, the same exposure to the Internet and other information networks, allow access to new trends, such as "It is that in reality I looked for it in other countries, wanting to educate myself also in technology issues, I have managed to see that, in other gyms, the United States, they are more advanced, so I was looking for technology for the gym" (Entrepreneur John). Among these networks are the events and seminars organized by SERCOTEC or the Intermediary Agents<sup>7</sup>, who are promoting its use:

"That, a business conference and one of them was TourPay. There was Banco Estado, there were a lot of companies, it was aimed at hotels, I went the same way because it really helped me (Entrepreneur John)"; "The technology was born, as I told you, largely through the award of the Seed Capital, even before that I had an email, I had a telephone and with the Seed Capital I was able to open up that spectrum of work and I realized that The topic of technology helped me a lot because I was able to create Facebook, I was able to create Instagram over time and also consolidate a web page" (Entrepreneur Smith).

#### **The Evaluation**

During this stage, the entrepreneur makes a rational reflection on the implementation of known and sought-after technologies through different information networks. In this way, the evaluation is made based on a series of factors that allow them to define their adoption depending on the type of

business undertaken and its functionality [11].

In the first place, we find that digital technologies allow them to eliminate local rental costs, for example, "The truth is that I always liked the online theme, one, I avoid having a business premises, paying rent, because I would have to, at the beginning, one does not see the profit until two or three years later, then it was impossible" (Entrepreneur Rashid). It also means saving time, "the program somehow saves me time. This program costs about 80 dollars, even I was surprised by the price. Yes, it is relatively low" (Entrepreneur Los).

Other factors that influence the evaluation are the facilities offered by these technologies to fulfill the multiple functions that the entrepreneur must perform, such as production, sales, communication with clients, search for new clients and markets, and search for new products. or services. In this case, the platform "Mercado Libre is a good alternative because they, that is, they are interested in the volume, they have solved the logistics issue of dispatch, so you only catch the clients and sell them, let's say, that is, you do the marketing" (Entrepreneur, Rio). When it comes to more complex technologies, such as management software or others, the advice of external providers is incorporated into the evaluation stage, "I first evaluated it with the person who sold it to me, with one of the technicians who sold me the software I have" (Entrepreneur, John).

#### The Decision or Selection

The decision is a moment of reflection made by the person or persons in charge, depending on how many owners the enterprise has. In this way, the decision must be made by the owner or the partners as a whole. In this way, adoption decisions are made based on the growth that the venture is having or not, if the business has profits and the objective that is being sought. An entrepreneur points out to us, the decision to adopt digital technologies is carried out between the two partners, "...that is, we see everything as strategic decisions together, we always make these decisions together. In general, we are well aligned" (Entrepreneur, Rio).

#### The implementation

For the implementation, two groups defined by the type of digital technology to be adopted are configured. On the one hand, social networks are implemented by each entrepreneur or with the help of family or friends. While the most complex technologies require the support of an external provider, such as the construction of web pages, installation of online payments and management software. In this case, external capabilities are required from the company that must be hired and that means an additional cost.

In this way, the web pages in general are contracted to external providers, as indicated "the website was implemented by contracting an external developer and designer... (we arrived) through data from the Entrepreneurship Center, through contacts of entrepreneurs or family members who had worked with people, that basically always with recommendations" (Entrepreneur, John), "I mean, I have to have a webmaster, a person who knows how to make the page friendlier, who knows how to position the page in the first places" (Los).

Another aspect considered relevant to point out are indirect elements in the implementation of technological

undertakings such as platform development, where the service will collect private data. This is the case of an entrepreneur, who, due to the nature of his business, requires advice on legal matters, "for example, law, legal things, for example, this had to have terms and conditions, because the people who enter have to accept the terms and conditions of the site, so of course, in the legal part I had it, I had to ask for help" (Entrepreneur, David).

Finally, a second moment of evaluation of the implemented technology was observed and when it is in execution, which accounts for the experimentation in the adoption of technologies. Thus, one of the entrepreneurs commented on the hiring and subsequent cancellation of a software. He tells us: "We evaluated the Bsale thing, that is, it was like, I put it on balance and said, it's not so much what I get from information, versus what I pay, so that's why I decided to take it out. The digital marketing thing does pay us a lot and the cost is not so high, because in the end you have metrics there so in the end, at the end of the month they give you a report and tell you look, you invested I don't know, \$100,000 in advertising for Facebook and within the conversion funnel that comes to you from the website, you received 200, 300 thousand" (Entrepreneur, David).

It could be concluded that, given the low costs and investment times, people can try the technology and if it does not work or give the expected results, they can stop using it, as is the opinion of another entrepreneur, "the investment and time amounts are low...I try them and if I don't like them, I delete them. It's that simple" (Entrepreneur Los).

#### Effects of Adoption of Digital Technologies in Entrepreneurship

Finally, the incidence or positive effects generated from the adoption of digital technologies in enterprises were analyzed. These technologies can increase the innovative potential of companies and entrepreneurs by accelerating the dissemination of information, allowing the formation of networks between companies, with clients, with providers of advanced services, with the public sector and other relevant agents for business growth, the limitations generated by geographical location are reduced, due to the facilitation of communications [12]. An exhaustive analysis of each effect found allows greater precision of the positive influence of these technologies on the interviewed entrepreneurs. Next we deliver each effect in a particular way.

- They allow direct communication with clients and at all times.

As pointed out in the literature review, one of the advantages of digital technologies is precisely the increase in the effectiveness of communication, which allows closer ties with suppliers, other companies and customers. Among the benefits of setting up a business through digital technologies, we count the ease of service, the flexibility of hours and being able to reach more customers than if they had an established location. One of the entrepreneurs tells us, "you can reach more people when you're not known, I don't know, it's closer too, as serving customers it's easier to answer them on the phone than answering calls and everything, although we bought a telephone to answer, so they don't call our personal phones. But it is always easier to respond to social networks than anything else" (Female entrepreneur, Kate).

- Increase in customers and sales.

When these entrepreneurs begin to use digital technologies on a regular basis, they see an increase in potential customers, those who see the offer and make inquiries, as well as buyers. This is because it improves the geographical scope of the business, not only do they sell to acquaintances and the neighborhood, but they also have a showcase in different places. This is a generalized conclusion of the interviewed entrepreneurs, "for example, I am registered here in Quilicura sells, which is a Facebook page and there one publishes, all the people kind of publish things and I have had plenty of new clients out there. I published, for example, at Christmas time, I published the Easter breads with a photo and I added to that... it was very well received, I sold many Easter breads" (Entrepreneur, David).

There is also a more advanced segment of entrepreneurs who use analytical applications, such as google analytics, adwords, which allow them to better understand their customers, gathering relevant information to guide their advertising and sales strategies. In Metropolitan they pointed out the following: "we have realized that before we thought that women would always be our main client and although they are our main client, there are many men who are looking, not necessarily buying, but who are looking a lot and I don't think that has been possible to know if we didn't do it this way, that's a surprise. And on the other hand, we are struck by the fact that there are many people who are outside our age range, the one we believed, who are also using the Facebook platform to access the pages (Entrepreneur, Smith).

- Installation cost and time savings

At this point, the evaluation made by the entrepreneur is observed when he is developing his business idea, and the channel he will use to make his sales. These are small, start-up businesses with low capital, so cost savings in any arena are essential. So they point out to us, "The truth is that I always liked the online theme, one, I avoid having a business premises, paying rent, because I would have to, at the beginning, one does not see the profit until about two or three years that it turns around, then it was impossible (Entrepreneur, John)"; "Yes, because it is cheaper, you can reach more people when you are not known" (Entrepreneur, Kate).

Another saving factor is the time spent on marketing, publicizing your offer and material that is delivered, such as brochures that are often lost or not they fulfill their objective. In tourism, they told us that the use of digital platforms prevents them from this expense, as follows:

"Then you lose material, you waste your time having gone to train that person and suddenly taking them out for a walk so they can get to know your product, then this and that the hotel guys weren't fishing for us and they created this platform" (Entrepreneur, Los).

- Facilitate business management

Another positive aspect is their contribution to the general management of their enterprises. If we observe, these entrepreneurs perform a multitask, occupying roles of management, marketing, customer service, etc., the TD allow these functions to be carried out in parallel and more quickly. In this way, two entrepreneurs point out how these

technologies facilitate:

"Mercado Libre is a good alternative because they, that is, they are interested in the volume, they have solved the logistics issue of dispatch, so you only catch the clients and sell them, let's say, that is, you do the marketing" (Entrepreneur, Kate). "I have a software that does it for me, I mark the product with the bar codes, enter the stock and as you sell, you make a closing at night and the closing at night lowers the stock..." (Entrepreneur, John).

- Opening to new markets, internationalization of entrepreneurship

Another fundamental aspect is the constant opening of new markets, constant search for new clients and openness to the internationalization of the business, depending on the offer that it delivers. For the search for new clients, this is a good alternative, as he points out: "now before autumn begins we have to, we are going to send through the Sercotec Business Development Center, we are going to send a digital catalog to all the centers, in order to look for clients through them" (Entrepreneur, John).

In the case of tourism entrepreneurs, digital technologies have meant opening up to international markets due to the reduction of geographical barriers that they represent, managing to sell their services to foreigners. In this way, entrepreneurs have noticed an increase in foreign tourists from a variety of countries. One of them tells us, "I have had people from Northern Ireland, Australia, France, Spain, Denmark, yesterday I had three passengers from Sweden, two Spaniards, a friend from Puerto Varas. Argentina, is also very visited, Brazilians. But there is always an international spectrum, it has always been increasing and more and more" (Entrepreneur, Los).

### **Obstacles of Digital Technologies in Entrepreneurship**

Despite the multiple benefits that DTs provide, they also have certain negative effects or obstacles when implementing them. The most relevant are knowledge barriers on the subject, both for the entrepreneur and the client, trust problems in the operation of digital systems, contrary to the face-to-face purchase tradition, the costs associated with its implementation and maintenance that many times are not accounted for, and finally problems of access to specialized providers.

In this way, the entrepreneurs shared their experiences in the implementation of the different TD, of which the areas described above are identified. One of high relevance for the "digitization" that has been advancing, is the online shopping culture where not only entrepreneurs and businessmen must be trained, but also the client: "It also happens many times that people call you through the web page, they don't dare to buy through the web page either and call you". (John). In this sense, there is a process of breaking down prejudices against technology, "I was a little reluctant to the subject of technology before having this figure, because I always saw how people, like I don't know, closed themselves up a lot with the subject of technology and as the old school that I am, I have always liked the books, literature" (Los).

Another problem they have found is the high costs for the current sales level of the business, so even if they manage to develop or implement some technology, they later have to abandon it, as he tells us: "yes, I also have a website. But

the truth is that I've left the web page aside a bit. Because heck, it means money to me. Well, until this minute I didn't have" (Los). Or they stopped using management software due to rising costs, "because of cost, they raised the cost. It's that they charge you for invoicing and after that the remuneration wasn't as much and yes the cost was higher" (David).

The distance from home state is also presented as an obstacle, to more expeditiously access suppliers (evaluation) and then for technical assistance (implementation). In this way, contracting suppliers is difficult, "To begin with, he is not from here, everything works online. I have to pay monthly, I don't like that issue very much, I prefer to have a technician who calls him every time the question fails me... And then I pay him accordingly" (John).

## 5. CONCLUSIONS

The objective of this study was to analyze the perception of entrepreneurs regarding the importance of digital technologies in their businesses, as well as the relationship between the adoption of technologies and the digital transformation strategy in their enterprises. This study aims to constitute an input to be able to generate public or private tools, whose purpose is to increase the adoption of digital technologies by entrepreneurs. This, in turn, ultimately corresponds to an increase in national and global welfare, since a greater number of digital technologies adopted is positively correlated with greater innovation for the respective company and, partially, for those belonging to its network. Greater innovation, in turn, is a driver for economic development.

In relation to the positive aspects of the adoption of digital technologies, a greater number of digital technologies adopted implies an acceleration in the dissemination of information by and for the company, an increase in the number of company networks, an increase in the closeness of company-client links and an increase in the efficiency of communication, vertical or horizontal. The study concluded that the factors that most influence the adoption of digital technologies and that lead firms to do so are an improvement in the visibility of their products and in improving their communications.

If it is compared with the positive effects that this effectively constitutes, it is observed that they are repeated, and translate into new clients. Basically, what entrepreneurs say will happen does happen. Likewise, regarding the negative areas so that future actors know how to counteract them and work in accordance with their existence, it was observed that companies have a low rate of adoption of digital technologies, in absolute terms and comparatively with countries in a similar development or development situation. higher. In addition, it is not enough just to invest in digital transformation, for an increase in productivity to occur it must be used effectively, which requires and depends on capital investment based on knowledge, trained professionals, personnel trained in its use. The use of digital technologies is not equivalent to having a digital strategy. The first without the second generally does not result in increased productivity or growth of the firm. If the concepts are isolated, the desired result is not obtained.

Regarding the perception of SMEs, they do not feel prepared for digital transformation. There is a lack of a culture of digital transformation at the country level that

encourages risk taking to support digital innovation. The task of influencing private companies, which mainly act by incentives, to advance in a national cultural change corresponds mainly to the government, to the universities and to various public institutions. The real barriers to the adoption of digital technologies are largely knowledge and cultural – a lack of skills available in the labor market, coupled with a lack of awareness of the potential of digital technologies for innovation and productivity growth. Furthermore, entrepreneurs still do not have a sense of urgency regarding the adoption of digital technologies for the development of their firms. Considering the negative effects of the adoption of digital technologies, these are varied, but they are mainly translated into an increase in operational costs. For its correction, the staff is usually trained, and in the absolute minority of cases the adopted technology is discarded.

## Competing Interests

The author did not declare any competing interest.

## References

- Acs, Z. J., Braunerhjelm, P., Audretsch, D. B., & Carlsson, B. (2009). The knowledge spillover theory of entrepreneurship. *Small Business Economics*, 32(1), 15–30.
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics*, 24(3), 233–247.
- Baltes, P. B. (1993). The ageing mind: Potential and limits. *Gerontologist*, 33(5), 580–594.
- Bayon, M. C., Lafuente, E., & Vaillant, Y. (2016). Human capital and the decision to exploit innovative opportunity. *Management Decision*, 54(7), 1615–1632.
- Dinesh, S. (2018). Technology Adoption among MSMEs in Tirunelveli District. *International Journal of Pure and Applied Mathematics*, 119(7), 2703–2716
- Govinda, R., & Diwan, R. (2005). *Community Participation and Empowerment in Primary Education*. New Delhi, India: Sage Publication House.
- Levenburg, N., Magal, S. R., and Kosalge, P. —An Exploratory Investigation of Organizational Factors and E-Business Motivations among SMFOEs in the US, *Electronic Markets* (16:1), 2006, pp. 70–84.
- Sarmah, B., Sharma, S., & Gupta, S. (2017). Antecedents of e-business adoption intention: An empirical study. *International Journal of Innovation Science*, 9(4), 417–434.
- Sekaran, U., & Bougie, J. R. (2013). *Research methods for business: a skill-building approach*. Chichester: Wiley.
- Shaharuddin, N.A., Rahman, A.A., Aziz, Y.A., & Kassim, S. (2018). An assessment of web technologies & e-business adoption among SMEs travel agencies in Malaysia. *Journal of Academia UiTM Negeri Sembilan*, 6(1), 89–96.

- Sivathanu, B. (2018). Adoption of Internet of things (IoT) based wearables for elderly health care – a behavioural reasoning theory (BRT) approach. *Journal of Enabling Technologies*, 12(4), 169–185.
- Sørebø, Ø., & Hæhre, R. (2012). Investigating students' perceived discipline relevance subsequent to playing educational computer games: A personal interest and self-determination theory approach. *Scandinavian Journal of Educational Research*, 56(4), 345–362.
- Soto-Acosta, P., Popa, S., & Palacios-Marqués, D. (2016). E-business, organizational innovation and firm performance in manufacturing SMEs: an empirical study in Spain. *Technological and Economic Development of Economy*, 22(6), 885–904.