LOGICALIS

IoT Snapshot 2019

A portrait of the adoption and potential of the Internet of Things in the Latin American market

Summary

Introduction

Here is the fourth edition of the IoT Snapshot. It is clear that the Internet of Things is happening and is no longer a mere promise. From the first editions, we have had the chance to watch the evolution of the Brazilian market and, most recently, the Latin American market, arriving at this fourth edition, when we start to see projects going into the rollout phase.

The fact that it is no longer an experiment and has become a lever for advances, whether in efficiency, improved visibility for decision-making, or customer experience, for instance, brings about a set of changes in executive perception.

To be able to sustain IoT investments has become a requirement of great importance – after all, IoT leaves behind its hype status and takes over as another (or more than one) strategic approach in the quest for competitiveness. The team management issue, whether concerning internal training or the capacity to recognize suitable suppliers or in dealing with resistance to change, which was already relevant, becomes increasingly critical – during rollout, it is essential to have the skills to transform the organization and teams to handle all the workload. And increasingly, the ability to integrate new solutions to the legacy architecture is becoming more important.

This turning point – from pilots through to commercial deployment – is more visible in the Brazilian market, and, yet, there is still plenty to do. Nevertheless, comparing data from past editions to this year shows that other Latin American studied-countries are following the same path, although with a slight delay.

It is an exciting opportunity to watch how this set of IoT technologies and solutions has evolved from early market discussions to the present moment when it is establishing itself maturely.

Good reading!

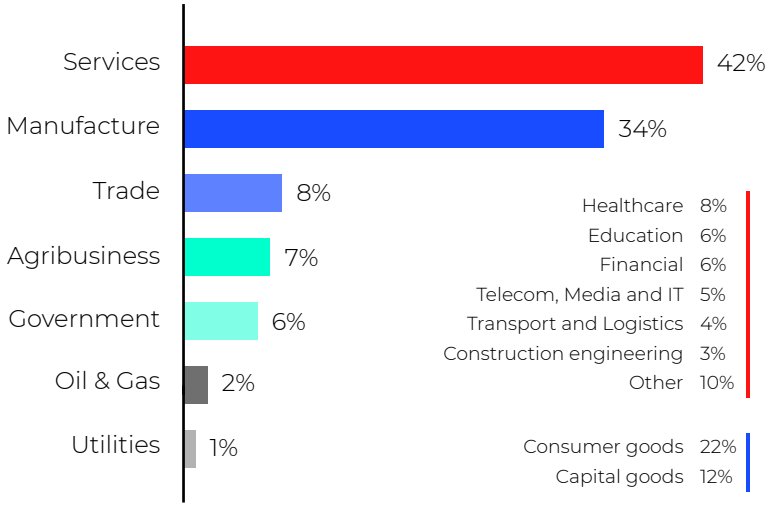
Yassuki Takano
Consulting Services Director

Methodology and Sampling

In its fourth edition, the IoT Snapshot study investigated the Latin American market to achieve a realistic portrait of its readiness to adopt Internet of Things (IoT) solutions. As in the previous year, in addition to Brazil, the study includes four other Latin American countries to provide a regional view on the technology, namely Argentina, Colombia, Chile, and Mexico.

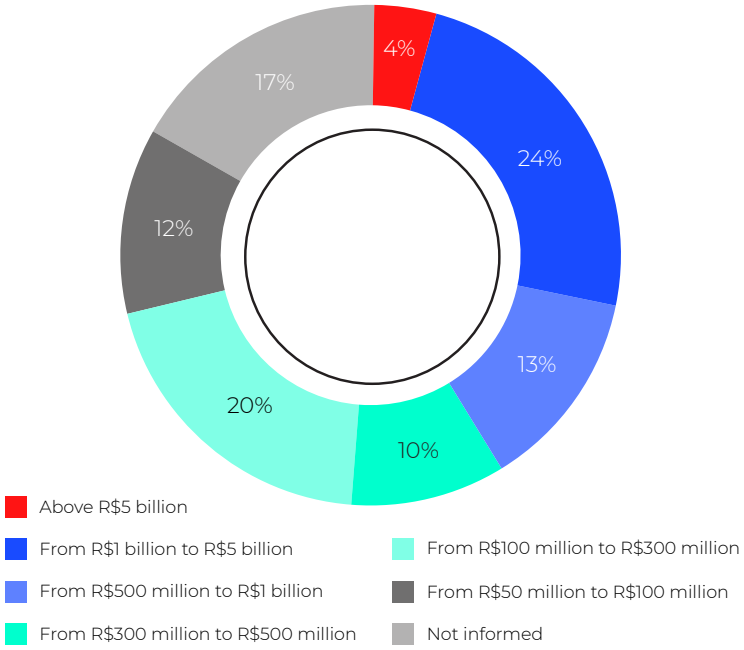
Brazil

Sampling distribution by market segment



Brazil

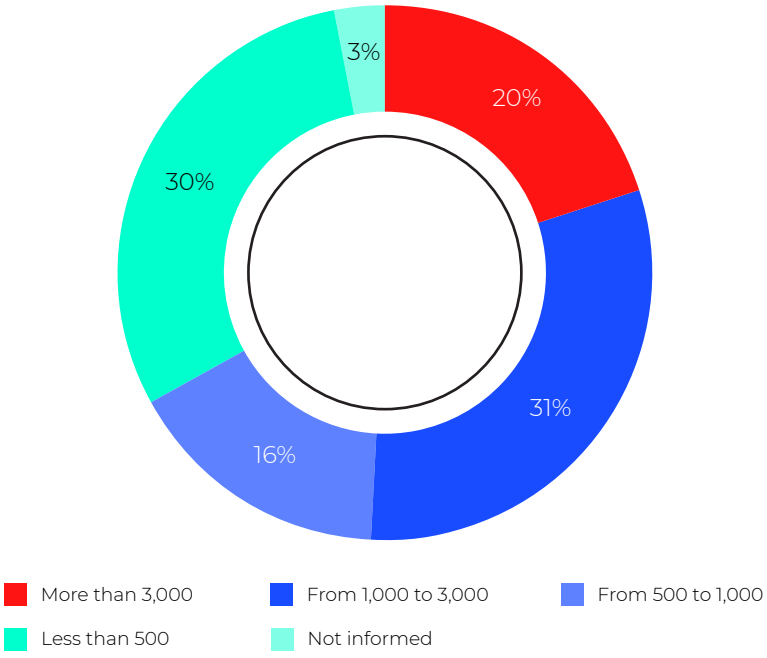
Sampling distribution by annual income



Conducted by Stratica Consultoria e Pesquisa, the survey interviewed 255 executives from October to November 2019, divided as follows: Brazil (146), Colombia (34), Mexico (32), Argentina (27), and Chile (17). Additionally, nine other Brazilian executives from different segments responded in-depth, personally, in a qualitative approach.

Brazil

Sampling distribution by number of employees

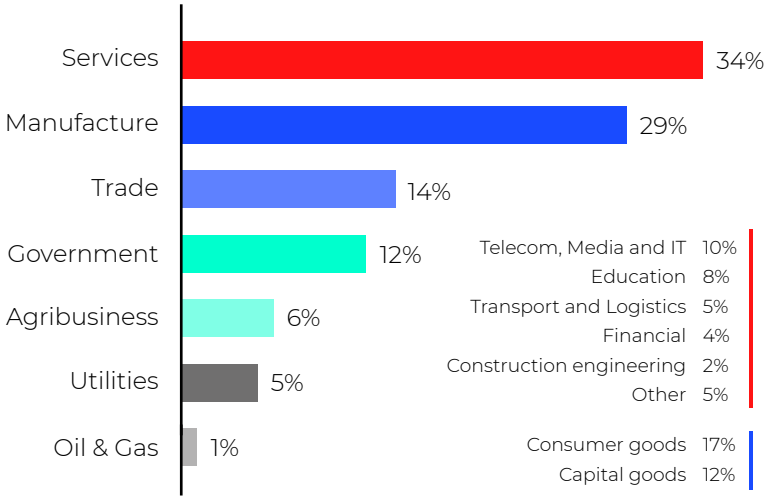


The samples reflect the reality of the markets within the targeted verticals and focus on medium and, particularly, large companies.

Among the Brazilian respondents, 95% are responsible for IoT analysis and development. Moreover, 66% are responsible for choosing IT and Telecom providers.

Argentina, Chile, Colombia and Mexico

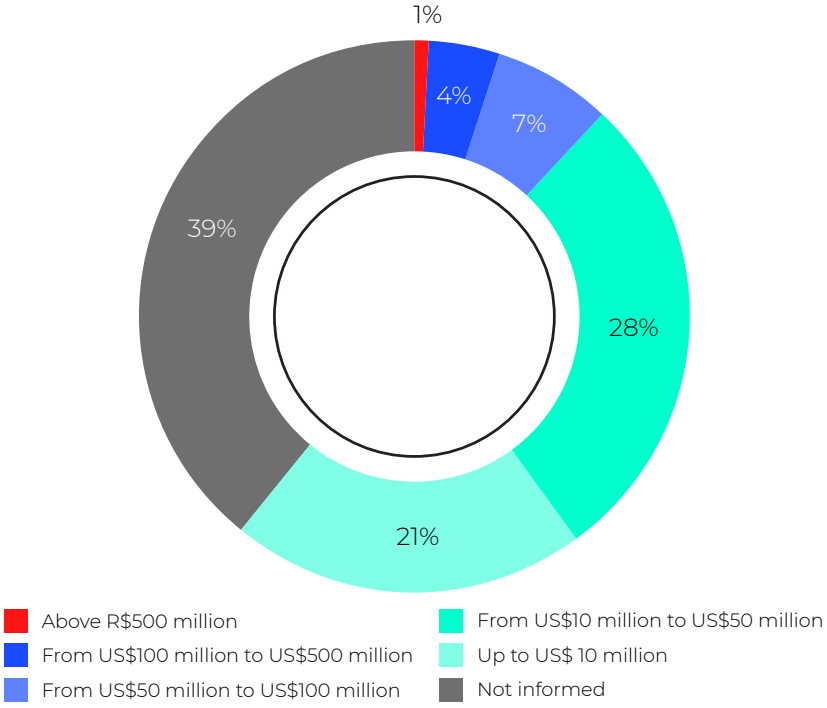
Sampling distribution by market segment



As for the other locations, all respondents are responsible for the development of IoT solutions, while 59% have decision power regarding hiring providers.

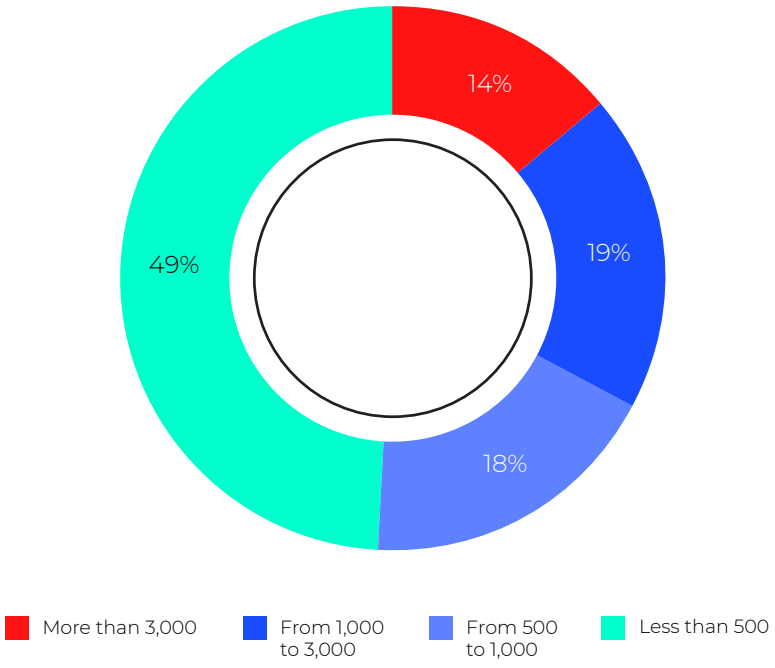
Argentina, Chile, Colombia and Mexico

Sampling distribution by annual income



Argentina, Chile, Colombia and Mexico

Sampling distribution by number of employees



Highlights

1. IoT is an ever-growing theme. For 42% of the companies, the topic is, currently, of high importance, while 74% predict that, in the next 3 to 5 years, it will be a matter of high or very high relevance within corporations.

2. The way teams organize to conduct IoT projects is changing: in 15% of the businesses, the initiatives are under the responsibility of multidisciplinary teams. In Brazil, this number reaches 26%.

3. 35% of Brazilian companies and 24% of Latin American companies already have some IoT initiative.

4. Cost reduction, promptness, and operational efficiency are the key benefits for IoT adoption.

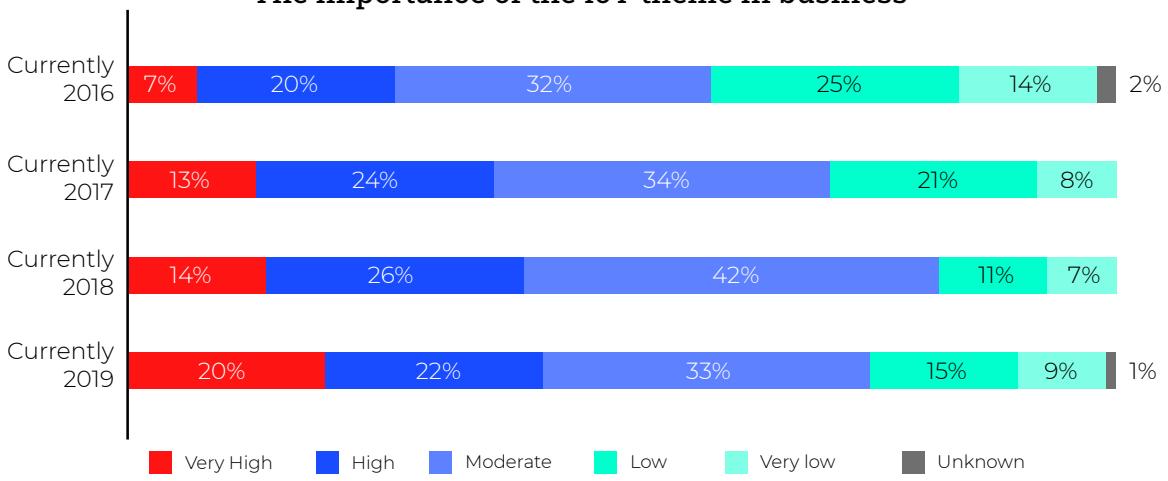
5. Cost and organizational culture are the key inhibitors for IoT adoption at this time.

The Importance of IoT

After the initial years, the technology is reaching a higher maturity level, and it is noticeable by the fact that it is increasingly becoming a reality – no longer just a promise. For 42% of the companies, the topic is, currently, of high importance, while 74% predict that, in the next 3 to 5 years, it will be a matter of high or very high relevance within corporations.

Brazil

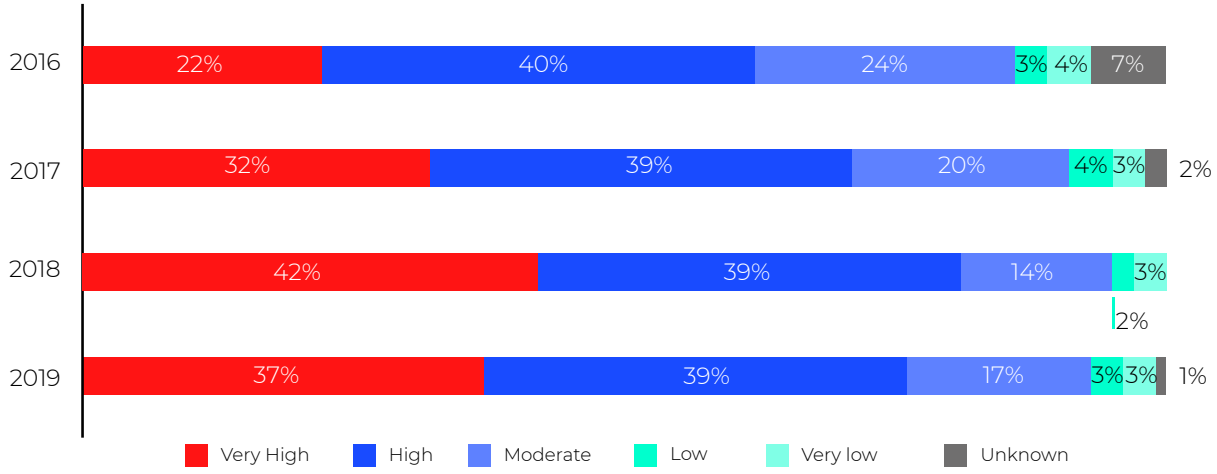
The importance of the IoT theme in business



Forty-two percent of the Brazilian executives evaluate IoT as a technology of 'high' or 'very high' importance for the business today. The growth in the topic's importance is consistent as the number is slightly higher than the 40% pointed out in last year's survey. However, we have not yet attained the expectation raised in 2016, when 62% of executives believed that within 3 to 5 years (that is, between 2019 and 2021), the technology would be of 'high' or 'very high' importance for their business.

Brazil

The importance of the IoT theme in business (Medium term 3-5 years)

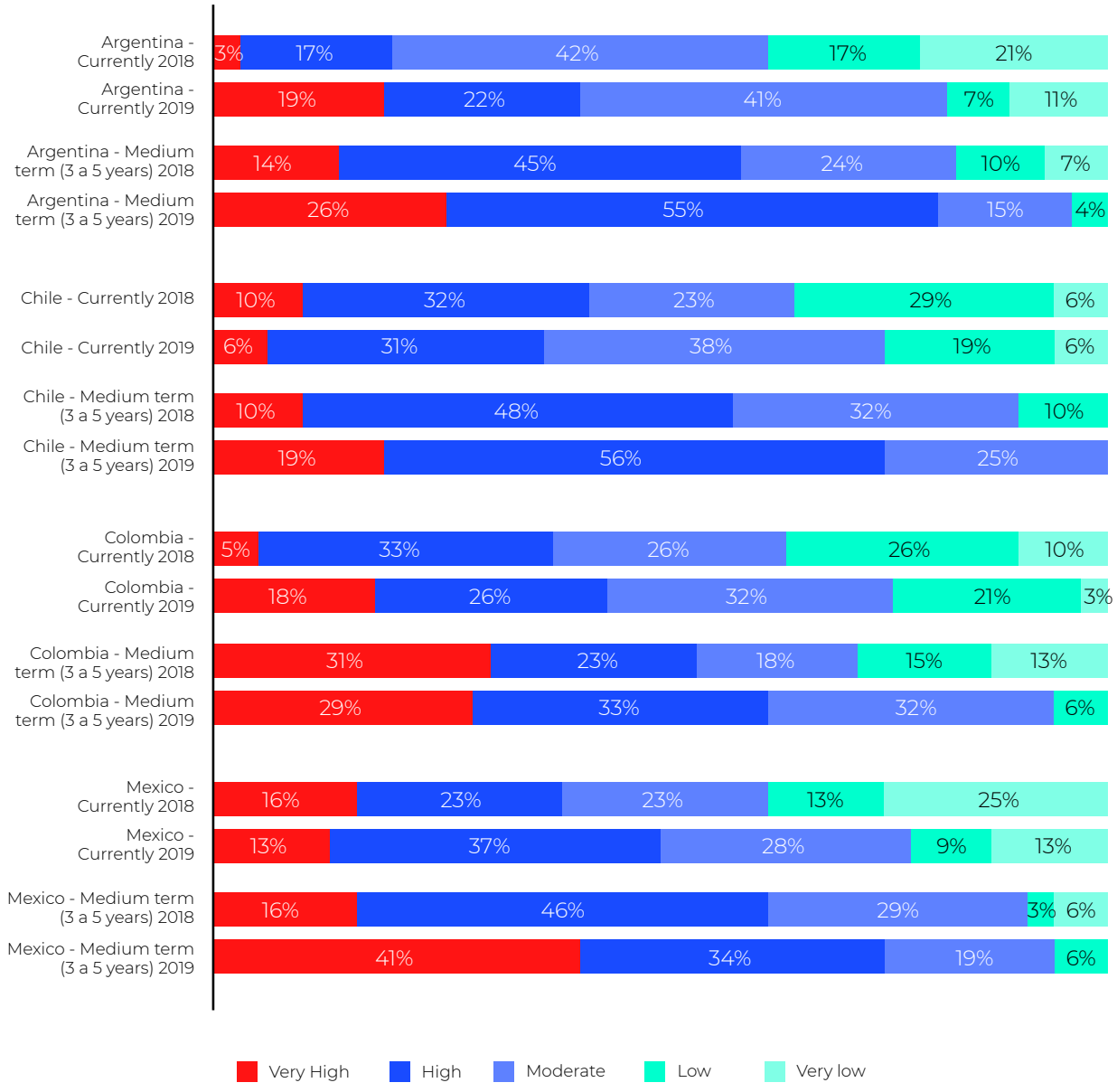


The figures further show that 76% of the Brazilian respondents expect that in the medium-term – that is, from 2022 to 2024 -, IoT grows to be of 'high' to 'very high' importance for their business. It is an estimate a bit below last year's, when 82% of the executives believed in the high relevance of IoT for the following 3-5 years.
The data is susceptible to two analyses.

On one side, it leads us to believe that the technology hype has passed, and now its adoption is relevant, or rather essential, for business evolution. Although not for everyone, as an effective analysis and clear goals are paramount before adopting the Internet of Things for business.
On the other hand, it is possible to realize that IoT's time is now and that fewer executives are pushing their expectations regarding the technology for the future.

The other Latin American interviewed-countries have substantially increased their views on the importance of the technology in comparison to last year. The only exception is Chile: currently, 37% of Chileans assess IoT as a technology of 'high' or 'very high' importance for the business, five percentage points less than last year.

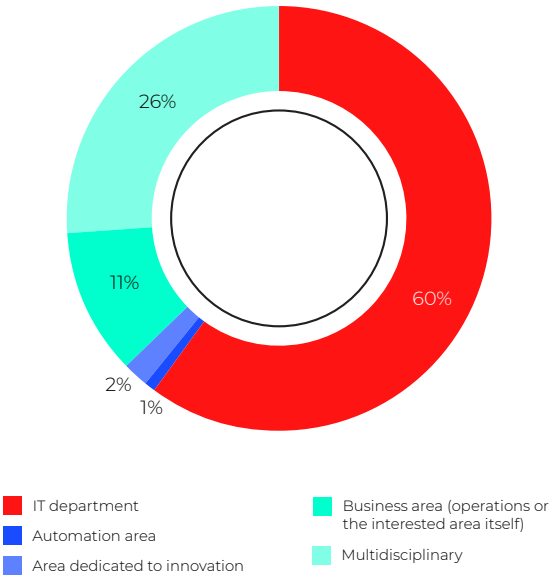
The importance of the IoT theme in business



Responsibility and Investments

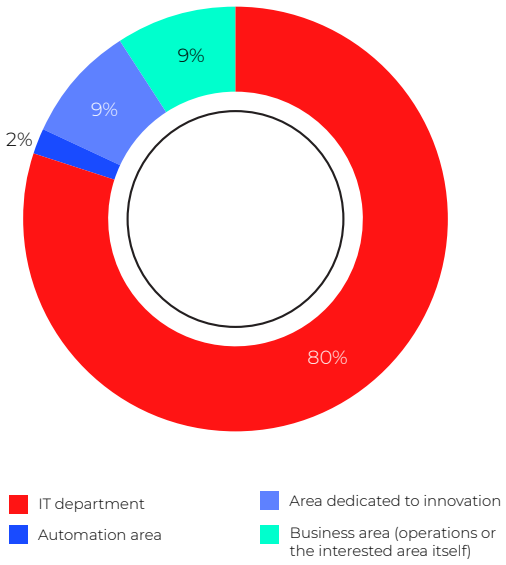
Brazil

IoT project implementation responsibility



Argentina, Chile, Colombia and Mexico

IoT project implementation responsibility

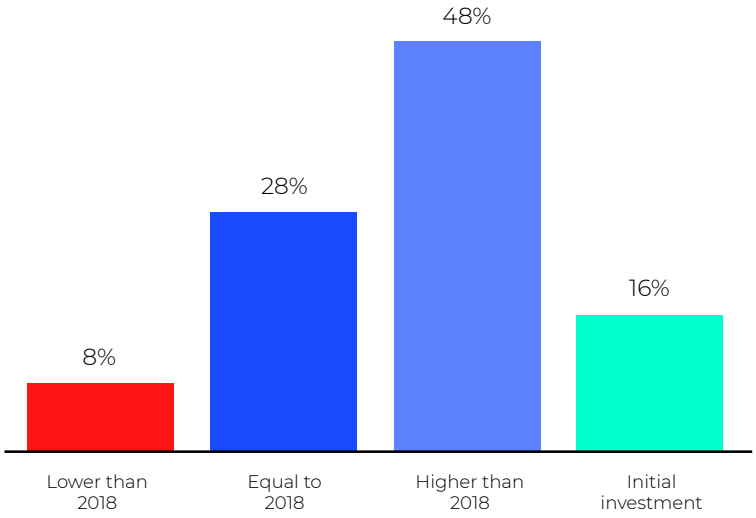


The market is evolving as to the structure of the team conducting IoT projects. Overall, the IT area is involved, which shows that following the digital transformation and the rise of disruptive technologies, IT has become an area of greater relevance for companies, ceasing to be a support area, and becoming fundamental for the business operation and improvement.

In most cases, the management and implementation of IoT projects are still under the IT department's responsibility (60%), slightly lower when compared to the previous year (68%). It speaks not only of the Brazilian reality but also of other Latin American countries, where 80% of IoT implementations are the responsibility of the IT area.

Argentina, Chile, Colombia and Mexico

Are 2019 investments higher, equal or lower than the 2018 investments?



Brazil

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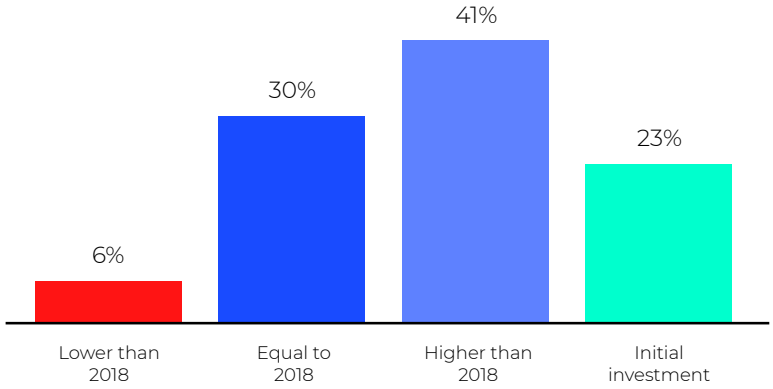


Nonetheless, there was a significant change in projects conducted by multidisciplinary teams, especially in Brazil. While last year only 3% of the responsibility and management fell on teams composed of IT, business, and innovation professionals, this percentage has grown a lot lately, to 26%. In the other countries studied, only 9% of respondents stated that IoT initiatives are the responsibility of multidisciplinary teams.

As for the establishment of innovation areas - which would lead projects involving disruptive technologies, such as the Internet of Things - which seemed to be a strong trend a few years ago, now shows retraction. In Brazil, the innovation area is responsible for IoT initiatives in just 2% of companies, even less than the 3% presented last year. In the other Latin American countries, 9% of the companies claim that these projects are under the responsibility of the innovation area.

The taboo related to budgets for the Internet of Things projects remains. Most executives prefer not to report matters concerning investments in technology. But among those who agreed to talk about it, the outlook is optimistic, especially in Latin American countries, where most respondents have a larger budget than last year (48%), and 28% say they have the same budget (28%). In Brazil, the situation is similar: 41% have a bigger budget than last year, and 30%, the same.

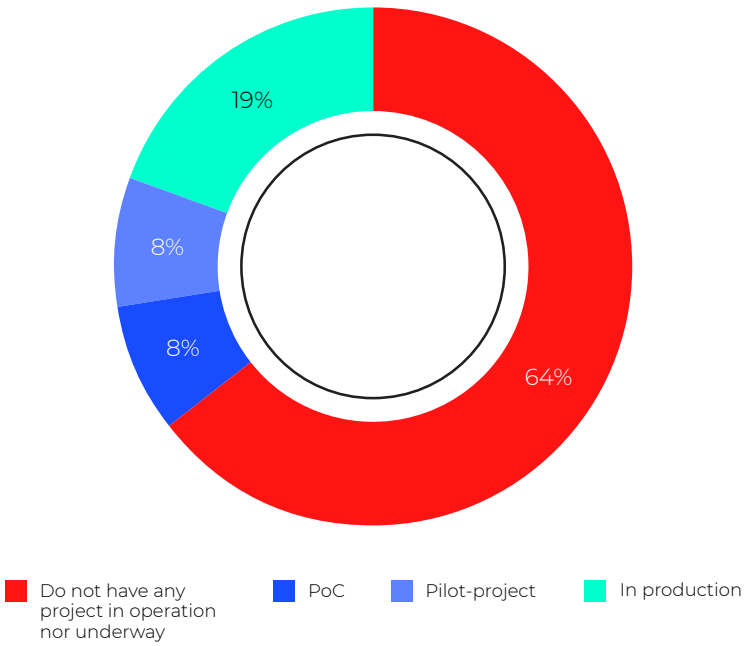
Adoption Level

Whether in PoCs (Proof of concept), pilot-projects, or initiatives already underway, the Internet of Things is gaining space in Latin America. In Brazil, 35% of businesses have some application of the technology, while, in Latin America, it is 24% of companies. The Brazilian market appears a little more mature, holding the highest number of initiatives (19%) already started. On the other observed countries, most companies (10%) are in PoC stages. Still a balanced scenario.

Considering that a company has more than one initiative on different levels of evolution, it is on the advanced stage (for instance, if a company has one service in production and one in the pilot stage, it fits the production census).

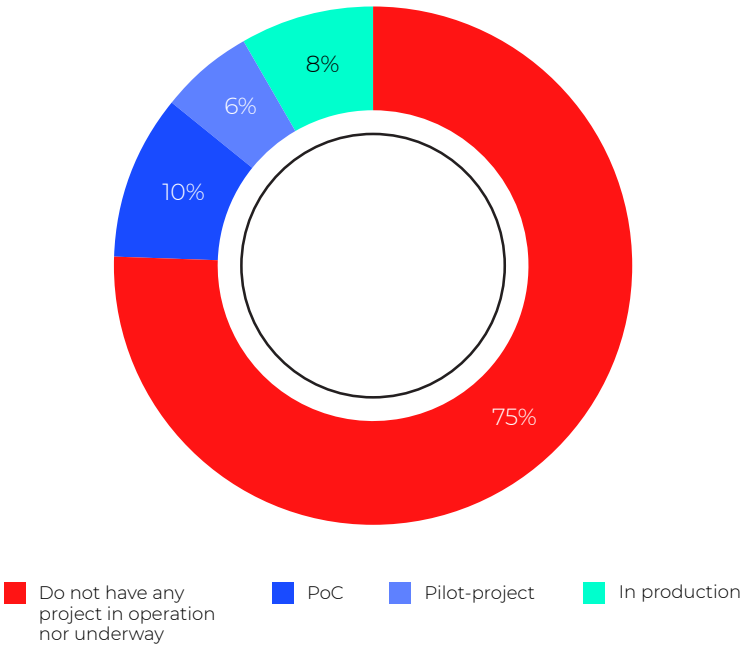
Brazil

IoT initiatives development stage



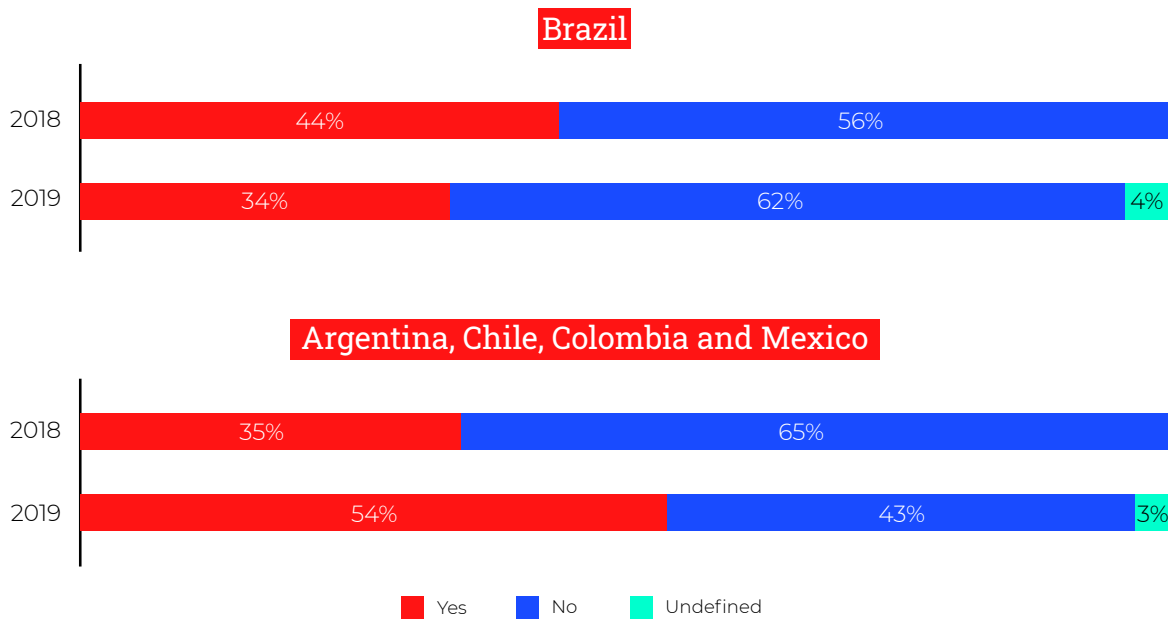
Argentina, Chile, Colombia and Mexico

IoT initiatives development stage



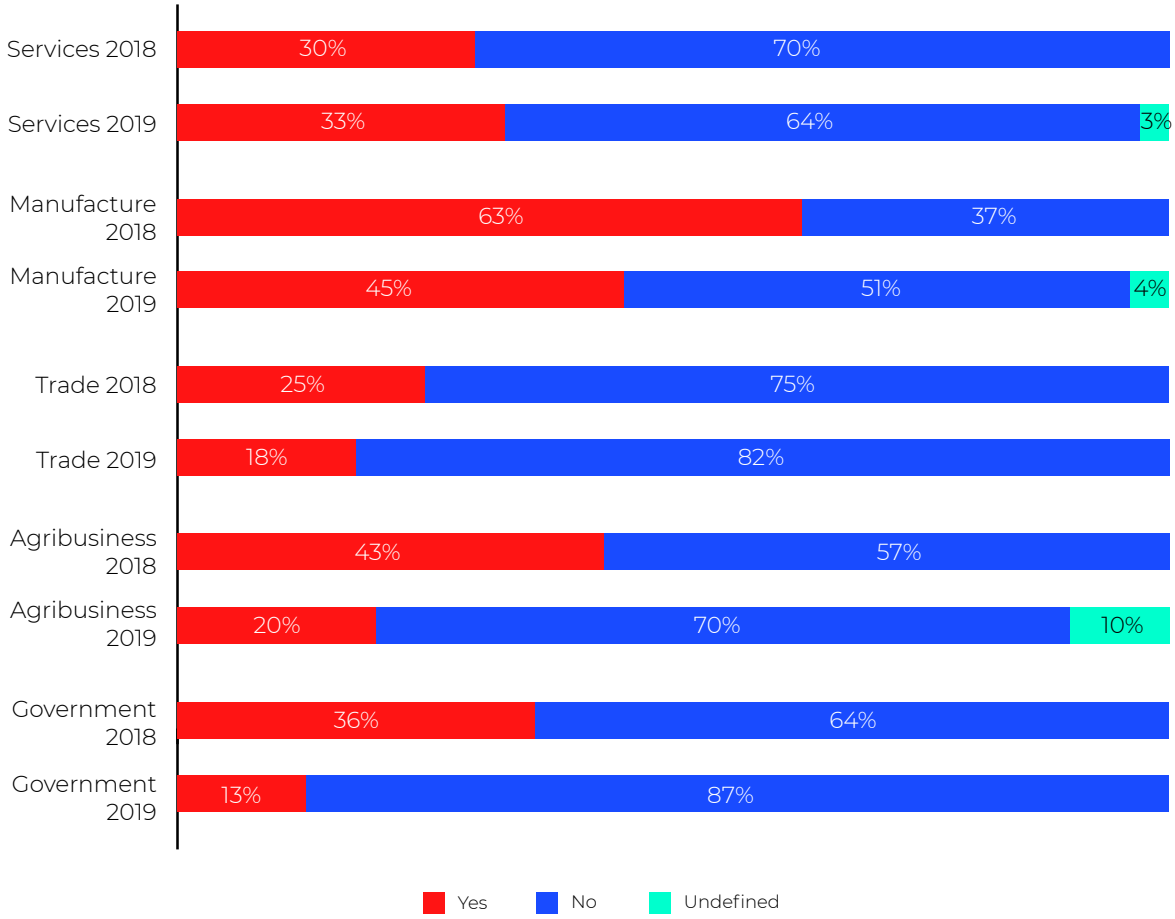
Investment plans for IoT over the next 18 months are more contained than in 2018. Argentina, Chile, Colombia, and Mexico have a somewhat more optimistic viewpoint. Although now 75% do not have any Internet of Things projects in progress, a large number (54%) of executives have concrete plans for new IoT projects over the next 18 months. As for Brazil, last year, 44% of respondents said they had concrete plans to invest in new Internet of Things initiatives; this year, just 34% of them.

New investments in IoT for the next 18 months

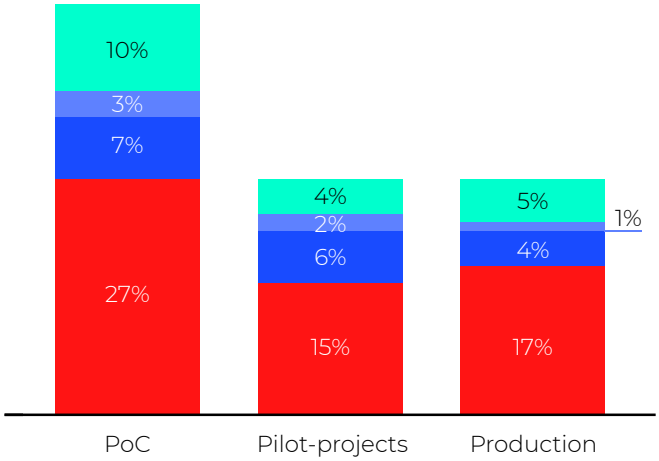


Brazil

New investments in IoT for the next 18 months



When assessing the Brazilian market by vertical market, the one with more concrete investment plans for new IoT projects in the coming 18 months is manufacturing, the same as last year. Yet, caution is easily noticeable, as the percentage of respondents dropped from 63% to 45%. In second place is the services sector, in which 33% of executives claim to have concrete plans to invest in IoT over the next 18 months. The figure is slightly higher than the 30% last year. While agribusiness, which ranked second last year with 43% of the companies planning IoT investments, positioned 3rd place among the most interested, with only 20% of executives with concrete plans and 10% still undefined.

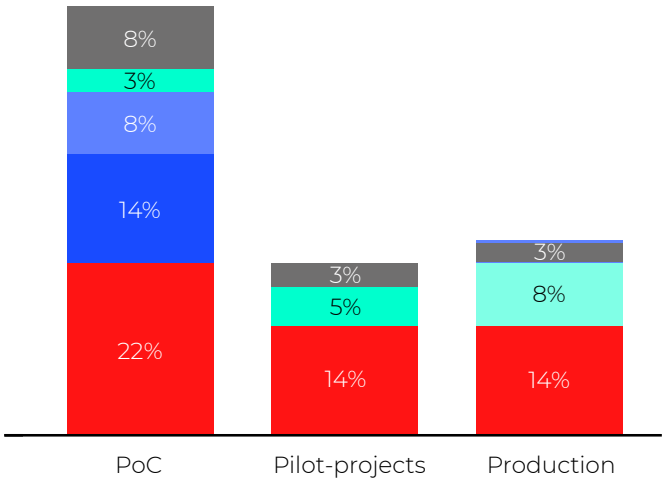


Brazil

Business areas served by IoT initiatives

- Production or operations
- Sales or commercial
- Logistics
- Others

In Brazil, the operations, trade, and logistics are the main areas served by IoT initiatives, whether PoCs, pilots, or projects already in production. Among the other Latin American countries in the study, the operations area also stands out; however, others are gaining space depending on the project, such as security (14%) in PoCs, and administrative (8%), in projects underway.



Argentina, Chile, Colombia and Mexico

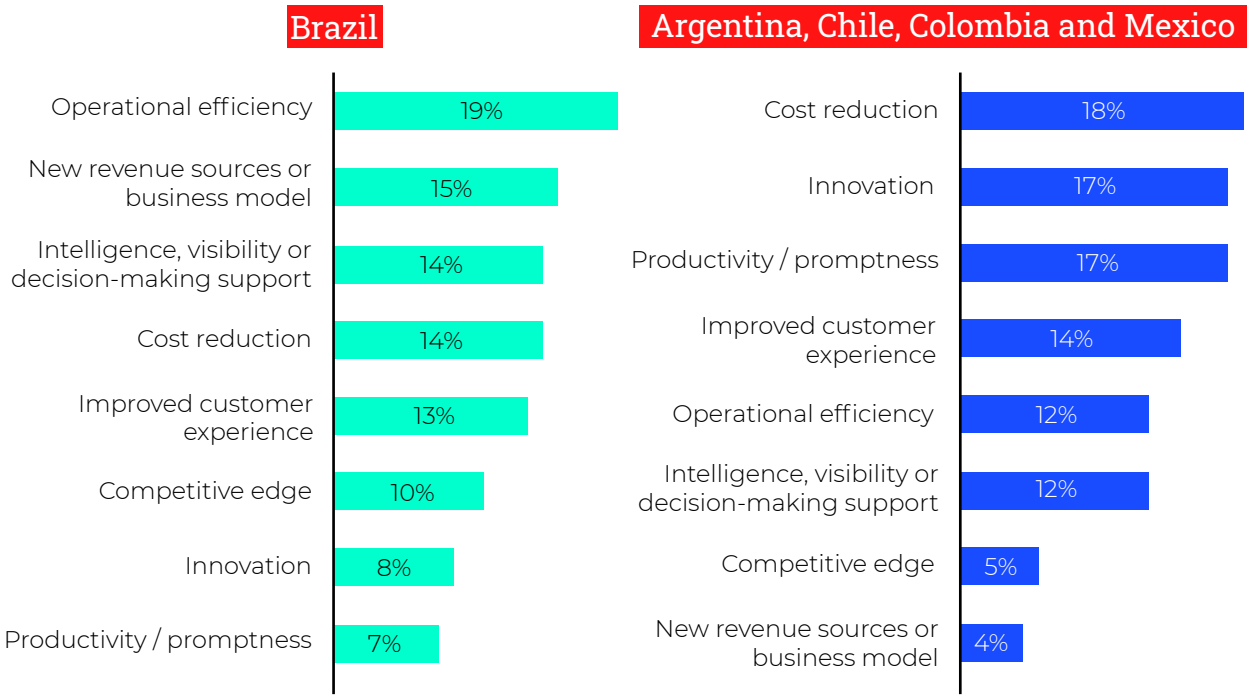
Business areas served by IoT initiatives

- Production or operations
- Security
- Sales or commercial
- Logistics
- Administrative
- Others

Unlike the previous year, when 17% of Brazilian companies saw customer experience as the key benefit of IoT, this year, the factor fell to fifth place with 13%, leaving operational efficiency in first place with 19%.

Latin American countries see similar benefits. Highlighting, nonetheless, productivity and promptness (17%), and innovation (17%), while for Brazil, these benefits are central for, respectively, 14% and 8% of the respondents.

Among the cited aspects, which three do you consider as a key benefit for IoT adoption?

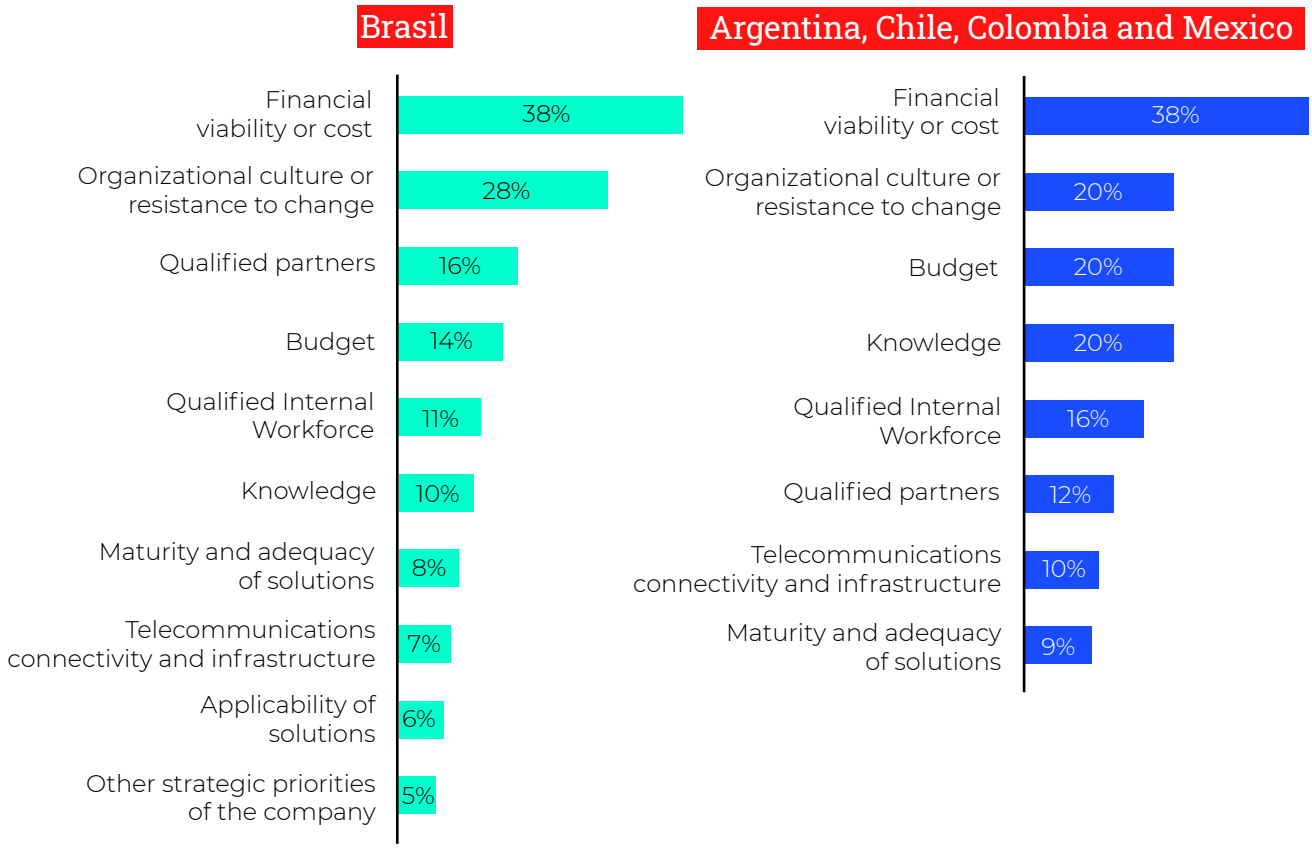


Challenges

The barriers encountered for the Internet of Things adoption are similar to those reported last year. The uncertainties surrounding the regional economic climate and the growing need to justify IoT investments led 38% of Brazilian respondents and those from the other countries to list the cost factor as the principal inhibitor to the adoption of the technology.

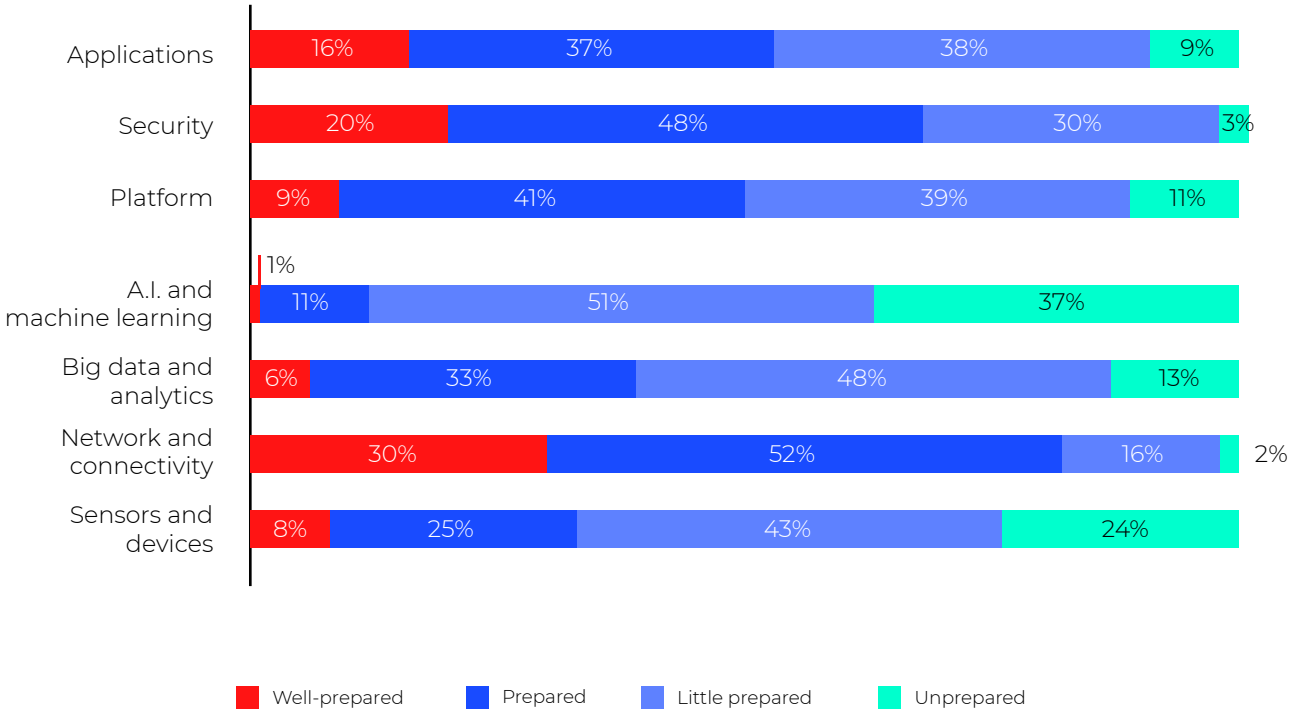
In second place arises a subject whose significance for projects' success is becoming increasingly clear: the organizational culture, pointed out by 28% of Brazilian executives and 20% of Hispanics as the primary barrier to Internet of Things initiatives.

Among the cited aspects, which three do you consider as a key benefit for IoT adoption?



Brazil

Level of knowledge and in-house team readiness

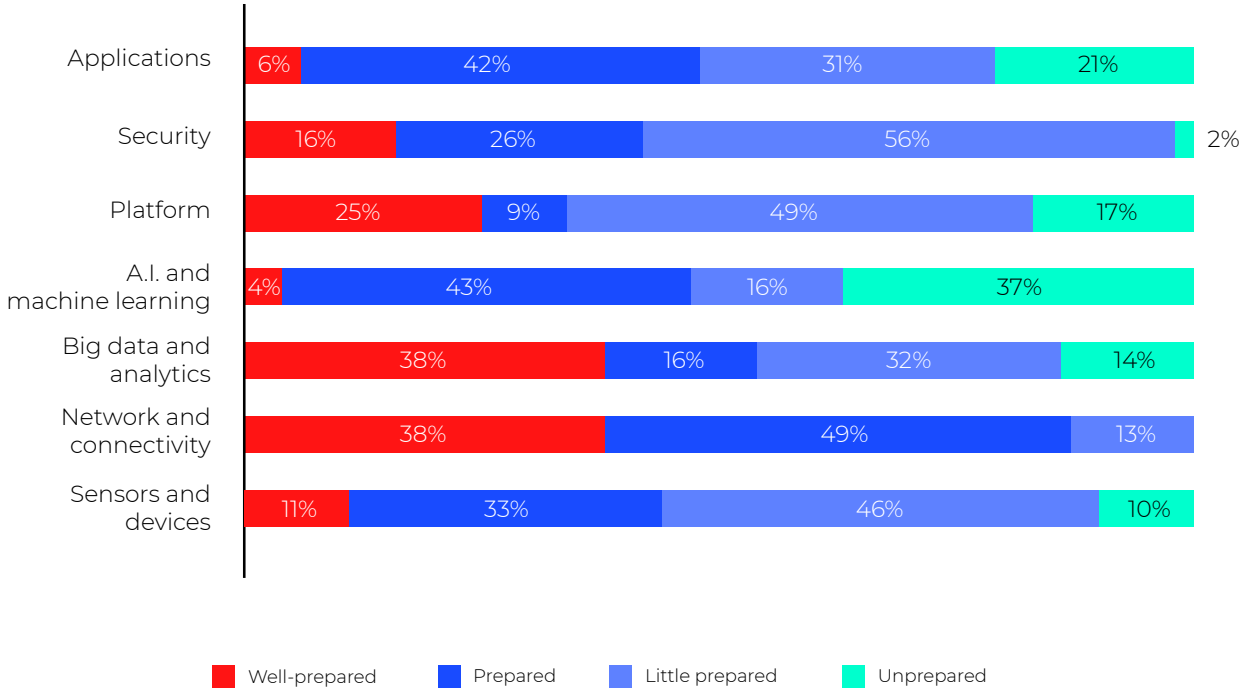


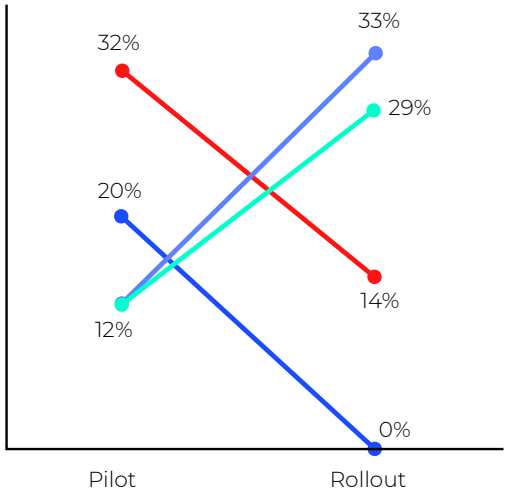
When detailing the difficulties the executives face concerning the training of internal teams, it is clear that the most challenging issue for Brazilians is artificial intelligence and machine learning. Only 12% of respondents believe their teams are prepared or well prepared to use these technologies, while 37% believe their teams are not qualified at all. On more traditional domains, such as network and security, executives feel most comfortable and, respectively, 82% and 68% say their teams are prepared or well prepared.

Although more optimistic regarding their teams' expertise level, the situation in the other countries of Latin America is not that different. In the region, the most challenging themes are, likewise, artificial intelligence and machine learning, while the most comfortable ones are network and connectivity, in which no one is more qualified in the respondents' view.

Argentina, Chile, Colombia and Mexico

Level of knowledge and in-house team readiness





Brazil

The main challenges faced during pilot and rollout

- Connectivity and telecom
- Solution adequacy and maturity
- Organizational culture and resistance to change
- Integration with legacy

It is worth noting how the challenges change according to the maturity level of the project within the organization. Brazil has a larger number of initiatives underway, which allows for better analysis. It is perceivable that when executives are kick-starting pilot projects, the main barriers seem related to connectivity and telecommunications (32%), and solution maturity and adequacy (20%). However, when it is time to implement the project and expand it throughout the organization, new challenges come up: organizational culture and IoT integration to the legacy systems. During the experimenting stage, these two barriers have the same percentage of difficulty (12%), but they rise to 33% and 29%, respectively, when it is time to put the project into production.

Conclusion

Welcome to a new market!

In the years to come, the dissemination of IoT solutions seems to have remarkably broad market potential and may bring benefits in a myriad of corporate strategy aspects. Expectations that these would be disruptive opportunities seem to be unfolding. But capturing these gains will require a set of new skills and actions to bypass barriers.

Having qualified professionals and suppliers is an old problem and not specific to IoT, but as space for project rollout appears, this demand increases and becomes even more critical.

Lack of knowledge is a point of great concern standing out in this new business model: analytics and artificial intelligence - which are the pillars of the Internet of Things - require skills to handle the vast amount of information collected by so many sensors and to work them in a way that renders them useful to improving business results. Data science seems to be a challenge on its own, far from being properly understood and worked in a satisfactory manner.

IoT has also drastically changed the market suppliers ecosystem: traditional IT suppliers conjoin companies specialized in certain sectors, or more specific IoT functions, and automation solution providers, which were already relevant in the production processes, and aspire to leverage this new market. These new relationships are remodeling the market's power scales, whether in the customer-supplier relationship or solution-creating partnerships.

Finally, we reach a point where digital transformation solutions are ready to, actually, transform businesses. It brings along a set of complex requirements: on the technical front, it is necessary to integrate the new solutions to the legacy environment – which, beyond complex, now include IT architectures and automation solutions; and on the organizational front, precisely for enabling IT to permeate processes previously not supported, requires efforts to mitigate resistance to change and intense cultural transformation.

When the term digital transformation went viral, it was to expected that companies would have to execute internal changes to pursue the gains of innovation. This moment is here – solutions are proving to be viable and advantageous. But, as says so in the name, its use generates and demands a real digital transformation.

IoT Snapshot 2019

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About Logicalis

With over thirty years of experience, Logicalis offers consulting services that have helped large corporations to understand how to leverage the business through the adoption of ICT solutions. Logicalis is a global information and communication technology solutions and services company with operations on five continents. In Latin America, it has a team of 1500 highly trained professionals, distributed by its operations in eleven countries - Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Puerto Rico and Uruguay. With the mission of being a transformative agent of society, Logicalis believes in the application of innovative technologies to support its more than one thousand customers in the path of digitalizing their business, always with solutions designed to meet each need.


LOGICALIS