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IMPACT OF THE DEVELOPMENT OF M-COMMERCE ON THE FUNCTIONING OF MALAGASY COMPANIES

RAMAMBAZAFY RALAINONY Nicolas Jacques Mamy¹, RAKOTOMALALA Eddy², TSISAROTINA Maminirina Renè Alexandre³ and ANDRIANARIZAKA Hantatiana Henimpitia⁴

¹Doctor in Management Sciences,
University of Antananarivo, Madagascar

²Master II in Management Science
University of Antananarivo, Madagascar

³Lecture in higher education
University of Antsiranana, Madagascar

⁴Doctoral student in management science
Doctoral school in Humanities and Social Sciences,
Doctoral Team in Dynamics of Organizations and Management
University of Antananarivo, Madagascar

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ABSTRACT

Phenomena such as the globalization of economies, the evolution of technology and the oppressive macroeconomic conditions are forcing companies not only to be more efficient but to become more efficient by adapting their operations to these new requirements. The development of cell phones and m-commerce propelled by the evolution of ICT brings a new era in the business world. And the problematic that arises is to know how the development of m-commerce changes the management of companies?

This study aims to identify the changes induced by the development of m-commerce in the management of companies. The results of a survey of a sample of 100 companies using m-commerce have confirmed the hypothesis suggesting that the use of m-commerce changes the way companies operate.

KEYWORDS: Company, function, phone, internet, m-commerce

INTRODUCTION

Every company is guided in its actions by objectives that it must determine and achieve efficiently to ensure its survival and growth. These objectives consist mainly of maximizing the value provided: to the owners, to the customers, to the employees and to the societies in which it operates. This ability to achieve the objectives in the right way can be strongly influenced by the information and communication technologies (TIC) used by the company. Indeed, TICs can improve the functioning of the company in different ways but especially on the relational and communication level. These technologies benefit from a vast connectivity: Internet, computers, telephony.

The combination of more powerful mobile devices, more innovative mobile operators and changes in the mobile network infrastructure, such as 5G networks capable of carrying large amounts of data at high speed, is paving the way for an already rapidly evolving sector. And right now, business is also happening via phone. The activity that takes place via the cell phone is known as Mobile Commerce (m-commerce). M-commerce is a form of electronic commerce that takes place on wireless mobile devices such as handheld computers and cell phones. According to ¹**Bathelot B.** m-commerce or mobile commerce covers all commercial transactions carried out on mobile terminals (smartphones and tablets). Transactions can be carried out in a mobile situation but also at home on a smartphone or a tablet.

M-commerce is rapidly becoming an essential tool bringing changes to the transactional process not only for consumers but especially for companies. And the problem that arises is to know how the development of m-commerce changes the management of companies?

With this high-speed evolution of technology, the exploitation of m-commerce by businesses is bound to evolve. But despite the various advantages promised by the exploitation of this technology, the real change brought by this tool is still debatable at the practical level. Thus, the objective of this work is to identify the changes induced by the development of m-commerce in the management of companies.

Assuming that the use of m-commerce modifies the functioning of companies, a survey by opinion poll near a sample of 100 company managers users of m-commerce² will allow to get out the changes brought by the development of m-commerce in each main function of companies.

I- CONCEPTUAL BASIS

In general, the m-commerce covers the means implemented by the actors: companies, individuals,

¹ **Bathelot B.** , « *M-commerce : définitions marketing* ». 2020

² Characteristics of the companies in annex

administrations; to sell and offer products, services not only online, but more specifically through mobile terminals. To do this, several tools are grouped in the m-commerce namely the SMS, the website, the mobile banking, applications.

In concrete terms, m-commerce is the equivalent of e-commerce, but applied to mobile. It includes communication, the entire act of buying and selling, as well as payment.³ M-commerce leverages the actions possible from a cell phone and it is important to remember that communication is a core strength of mobile devices. They become ideal devices for transactions, from sales to payment. In addition to online shopping and sales, there is a wide range of applications that aim to turn the cell phone into an electronic wallet that can be used as a payment device.

Just like customers, businesses can also enjoy a number of benefits by exploiting m-commerce. The advantages are multiple and the list is endless, but among the most known are in:

- **Practicality:** The principle of a cell phone is that you take it everywhere with you and that, except in exceptional cases, you never get rid of it. Also, by developing its presence on this tool, the company offers itself the unprecedented opportunity to remain in permanent contact with its customers. Whether it is through the company's mobile site, by sending messages or through applications, with the mobile the solutions are legion to ensure that the link is maintained continuously.

- **The pertinence:** The practice of m-commerce has the advantage of conveying many messages that are valuable for the company. First of all, it symbolizes the development of new uses, those related to the digital revolution. It is the opportunity for the company to show its modernity, to prove that it knows how to stay in the air of time through innovation. But the benefit of image does not stop there, because the m-commerce embarks with him the values of mobility that are notably freedom, convenience, or optimization of time.

It also gives the opportunity to the company to communicate on some of these messages according to its own values. Finally, as m-commerce is still in its infancy, it is a way to differentiate from the competition by being more daring, by positioning itself at the forefront of service.

- **Personalization:** Mobile not only improves proximity with customers, it also allows to personalize the relationship like never before. In marketing, we always say that you have to present the right message for the right offer to the right target through the right channel. With mobile, we add two key points, which are the right time and the right place. It is indeed a small revolution that allows us to take a

³ Callot Phillipe, « Marketing et vente des services associés ». Collection Lire agir, 2016.

new crucial step in marketing.

- **Accessibility and omnipresence:** Today, the exponential growth of smartphone users is a fact, we use it more and more to surf the web. This media does not leave the society, whether by necessity, to learn or simply to be entertained, the mobile has almost become an extension of ourselves. Everyone is connected all the time and business can no longer ignore it, so much so that the question is not whether to go there but how to go about it.

As part of e-commerce, m-commerce also suffers from the setbacks of this business practice such as:

- **Product price fluctuations:** With online shopping, consumers can compare many products and find the lowest price. This forces many merchants to compete on price and reduce their profit margins. Frugal online shoppers will have no problem finding the best deals.

- **The Need for a Good Internet Connection:** Since many e-commerce platforms have features that require high-speed Internet access for an optimal customer experience, you may be excluding visitors with slow connections.

- **IT security:** More and more businesses and organizations have fallen prey to malicious hackers who have stolen customer information from their database. This could not only have legal and financial implications, but also diminish customer trust in the company.

- **Unpredictability of shipping:** Lost or stolen packages, broken goods, and delivery delays complicate product shipping. No matter how well or quickly products are packaged, there is no guarantee that they will reach their destination in a timely manner.

The arrival of cell phones, smartphones and tablets has revolutionized behaviour⁴. From now on, more and more consumers consult their cell phone before making a purchase. These new consumers or mobile users, the arrival of 3G, then 4G added to the development of free access to WIFI has made the mobile indispensable to these new consumers. Today, the mobile user consults his mobile before making a purchase, to learn more about the product, compare prices, obtain consumer opinions... But he also consults his mobile before choosing his restaurant, his local shop... Moreover, the mobile device has triggered in many consumers a dependency close to addiction.⁵ The mobile is present at every moment of daily life and serves as a reference. It is therefore quite natural that this evolution has led to the purchase via mobile device.

⁴ Pires T. et Stiou E. « *m-commerce : Construire et piloter sa stratégie commerciale sur mobile* » 2016.

⁵ Pelet J E. et Ladwein R , « *m-commerce: Du design d'interface à l'optimisation des ventes* », 2012.

The statistics of people who purchase goods and services directly via their phones are constantly growing. Business is no exception to this phenomenon as everyone's action revolves around their cell phone. Thus, the m-commerce, or mobile commerce has become a must for any company.

The company is a living organism, whose "survival" requires a good coordination of the organs that compose it. Indeed, the company can only function if the tasks to be accomplished are distributed in a precise way and if the role of each person in the company is clearly determined. The more important the company is, the more its organization, to be effective, must be structured. To analyze the effects of m-commerce on the functioning of the company requires the identification of the changes observed in each function.

II-RESULTS

The results brought in this study turn mainly on the usefulness of the m-commerce and its frequency of use in the companies while leaving thereafter the changes brought by the use of the m-commerce, noticed in each function.

2.1 Frequency of m-commerce usage

The survey conducted among managers or responsible users of m-commerce shows that its use is very frequent in the general activities of their companies. But its frequency of use differs according to the specificity of the activities.

Table 1: Frequency of use by activity

| Frequency of use of m-commerce/industry | Elementary | Secondary | Tertiary | TOTAL |
|---|------------|-----------|----------|-------|
| Infrequent | 0,0% | 100% | 0,0% | 100% |
| Common | 38,5% | 61,5% | 0,0% | 100% |
| Very frequent | 0,0% | 3,2% | 96,8% | 100% |
| TOTAL | 10,0% | 30,0% | 60,0% | 100% |

Sources: Authors, 2022

It should be noted, however, that for companies that are in the service sector and considered as the great habitués of m-commerce, 96.8% of their activities call for the use of this strategy.

Given that our sample is composed of companies using m-commerce, logically the not at all frequent scale is eliminated.

2.1.1 Frequency of use of each m-commerce tool

Faced with this great use of m-commerce by Malagasy companies, according to the results in table 2, we were able to show that the 4 main types of products or practices of m-commerce, namely SMS/m-commerce, mobile-banking, applications and web/mobile are used by Malagasy entrepreneurs. However, their frequency of use varies.

The use of mobile-banking remains the common and leading practice of m-commerce of all Malagasy companies. 97% of them declare to have a very frequent use against 3% only for frequent uses.

Table 2: Frequency of use of each type of m-commerce

| Frequency of use Type of m-commerce used | Not at all frequent | Not frequent | Frequent | Very frequent | TOTAL |
|---|------------------------|-----------------|----------|------------------|-------|
| SMS/m-commerce usage frequency | 18,0% | 82,0% | 0,0% | 0,0% | 100% |
| Frequency of mobile-banking use | 0,0% | 0,0% | 3,0% | 97,0% | 100% |
| Frequency of use of applications | 87,0% | 1,0% | 12,0% | 0,0% | 100% |
| Web/mobile usage frequency | 0,0% | 0,0% | 26,0% | 74,0% | 100% |

Sources: Authors, 2022

The Malagasy entrepreneurs according to the results of the table are already used to inform themselves of their market through the web because the second most practiced type of m-commerce is the web/mobile. None of the companies use this type of web/mobile and 74% admit to having a very frequent use.

2.1.2 Utility of m-commerce

The use of cell phones is becoming more and more frequent among consumers. Adept at nomadism, connected to the Internet and social networks at any time of the day, the telephone has become the faithful ally of consumers. It seems necessary, today, to be present on this channel in order to capture the attention of consumers, partners and obtain new sales.

Table 3: Frequency of use by m-commerce utility

| Usefulness of m-commerce | Never | Rarely | Frequently | always | TOTAL |
|----------------------------------|-------|--------|------------|--------|-------|
| m-commerce as a purchasing tool | 2,0% | 13,0% | 85,0% | 0,0% | 100% |
| m-commerce as a sales tool | 1,0% | 12,0% | 85,0% | 2,0% | 100% |
| m-commerce as a marketing tool | 1,0% | 3,0% | 95,0% | 1,0% | 100% |
| m-commerce for banking relations | 3,0% | 1,0% | 30,0% | 67,0% | 100% |
| m-commerce for collections | 1,0% | 2,0% | 30,0% | 67,0% | 100% |

Sources: Authors, 2022

For the leaders of companies using the m-commerce, our study establishes through the analysis of survey results by survey sort that the m-commerce first serves as a marketing tool, 95% of operators in the field of business use them as such. Secondly, 85% of leaders use this practice of m-commerce for the activities of purchases and sales.

The last utility of m-commerce for companies mentioned through this study concerns the management of the banking relationship which allows to manage in zero time or in a minimum of time all the activities or banking information such as movements, balances and new offers of financial products, 67% of companies surveyed are totally concerned in this situation, as for the practice of recovery it is declared by 67% of companies as an essential purpose of use of m-commerce.

These different uses of m-commerce are judged by the leaders of companies to be frequent practices (often or always) in their function, only the activities of sales or purchases are sometimes carried out with other processes. 13% of companies rarely use m-commerce as a tool for purchase against 12% for the sale.

2.2 The effects of m-commerce on business operations

The practice of m-commerce as a strategy brings for companies positive and negative points represented as impact or advantages and disadvantages at the level of the different structures.

2.2.1 Impacts of m-commerce in the main functions

The analysis of the opinions expressed by the leaders or managers of the companies made it possible to identify the existence of the impacts of m-commerce in the various types of function within a company.

Table 4: Impacts of m-commerce on each function

| Existence of impact Type of function | Totally disagree | Disagree | agree | Very agree | TOTAL |
|---|-----------------------------|-----------------|--------------|-------------------|--------------|
| Effect on F° production | 5,0% | 7,0% | 88,0% | 0,0% | 100% |
| Effect on F° finance | 4,0% | 1,0% | 90,0% | 1,0% | 100% |
| Effect on sales area | 0,0% | 0,0% | 89,0% | 11,0% | 100% |
| Effect on Human Resources | 81,0% | 19,0% | 0,0% | 0,0% | 100% |

Sources: Authors, 2022

The results summarized in Table 4 show us that the impact of m-commerce is real, especially in the production, commercial and financial functions according to at least 8 out of 10 leaders surveyed. Nevertheless, the HRM function hardly reflects the impact of m-commerce, 90% of respondents do not agree on the existence of the impacts of m-commerce in this area

2.2.2 Advantages and disadvantages of m-commerce

Like any new innovation, m-commerce can present both positive and negative points. The opinions of user companies on this subject are presented in the following results.

The company can broadcast information in real time to the user according to his profile or the latest events, and even go as far as to promote instant interaction. It is for these practical sides that m-commerce offers that the vast majority of business leaders, 93%, share this aspect.

Thanks to all these levers, the company can now 'fine-tune' the relationship with its customers and fully take into account their habits and preferences. By personalizing the relationship in this way, the company demonstrates the attention it pays to each of its customers and thereby reinforces its intimacy with them. The vast majority of Malagasy business leaders, more precisely the 94% aware of these opportunities, display their agreements that m-commerce offers personalization as an advantage.

Table 5: Benefits recognized by companies

| Opinions of executives Type of benefit of m-commerce | Totally disagree | Disagree | agree | Very agree | TOTAL |
|---|-------------------------|-----------------|--------------|-------------------|--------------|
| Omnipresence | 1,0% | 0,0% | 99% | 0,0% | 100% |
| Accessibility | 1,0% | 0,0% | 99% | 0,0% | 100% |
| Practicality | 0,0% | 17,0% | 81,0% | 2,0% | 100% |
| Relevance | 0,0% | 85,0% | 15,0% | 0,0% | 100% |
| Personnalisation | 0,0% | 6,0% | 90,0% | 4,0% | 100% |

Sources: Authors, 2022

The majority of the companies' managers agree to declare that accessibility, omnipresence and personalization are types of advantages offered by the use of m-commerce.

In addition to these positive points, more than 80% of the respondents in our study mentioned the lack of standardization, accentuated by the constraints of the terminals and the complexity of use of the telephone devices via among others the parameter setting but also the exponential evolution of the associated technologies as disadvantages of m-commerce.

Table 6: Disadvantages recognized by the companies

| Opinions of executives Type of disadvantages of m-commerce | Totally disagree | Disagree | agree | Very agree | TOTAL |
|---|-------------------------|-----------------|--------------|-------------------|--------------|
| Lack of standardization | 2,0% | 9,0% | 89,0% | 0,0% | 100% |
| Terminal constraints | 3,0% | 11,0% | 86,0% | 0,0% | 100% |
| Evolution | 0,0% | 11,0% | 74,0% | 15,0% | 100% |
| Complexity of techniques | 2,0% | 13,0% | 85,0% | 0,0% | 100% |

Sources: Authors, 2022

III- DISCUSSION

The following analyses will serve to demonstrate that the development of m-commerce is changing the way companies operate by presenting these changes in each main function.

3.1 Changes in the Finance function

The purpose of this function is to translate into data the material and financial flows between the company and its partners, namely

- The tax authorities (taxes)
- The suppliers
- The customers
- Banks

Table 7: Changes in the finance function

| Opinions of business leaders Change in the finance function | Totally disagree | Disagree | agree | Very agree | TOTAL |
|--|-------------------------|-----------------|--------------|-------------------|--------------|
| Tax Procedures | 1,0% | 4,0% | 63,0% | 32,0% | 100% |
| Modify banking relationships | 0,0% | 3,0% | 64,0% | 33,0% | 100% |
| Modifying supplier payments | 1,0% | 3,0% | 65,0% | 31,0% | 100% |
| Modify collections | 0,0% | 4,0% | 63,0% | 33,0% | 100% |

Sources: Authors, 2022

Table 7 shows that the majority of the managers surveyed, more than 90%, stated that they had seen changes in the four areas of the financial function. This change can be explained by the use of mobile banking.

3.2 Changes in production function

The Production function encompasses all activities that transform raw materials and components into products sold to customers

The technical or production function is at the heart of the company's activity. In order to make goods and services available to customers, it gathers and implements human and technical resources to manufacture, install and distribute its products or provide services.

Table 8 presents the opinions of companies on the changes brought about by the use of m-commerce in their production functions.

Table 8: Changes in production function

| Opinions of business leaders Changes in production | Totally disagree | Disagree | agree | Very agree | TOTAL |
|---|-----------------------------|-----------------|--------------|-----------------------|--------------|
| Modify production procedures | 1,0% | 17,0% | 53,0% | 29,0% | 100% |
| Modify production capacity | 1,0% | 15,0% | 55,0% | 29,0% | 100% |
| Change the supply | 0,0% | 3,0% | 65,0% | 32,0% | 100% |
| Modify deliveries | 0,0% | 3,0% | 63,0% | 34,0% | 100% |

Sources: Authors, 2022

According to this table, despite a few companies that do not agree on the changes in procedures 17% and production capacity 15%, the production function is quite concerned by the changes brought by the use of m-commerce. These changes are most noticeable in procurement and delivery.

3.3 Changes at the commercial function

The commercial function includes all the tasks that are directly or indirectly related to the sale by the company of its products and services. We can also say that the trade includes all the actions intended to detect the needs and to adapt accordingly and continuously the production and marketing. The effects of m-commerce on the commercial function are detailed in table 9.

Table 9: Changes at the commercial function

| Opinions of business leaders Changes in business | Totally disagree | Disagree | agree | Very agree | TOTAL |
|---|-----------------------------|-----------------|--------------|-------------------|--------------|
| Modify order taking | 1,0% | 2,0% | 60,0% | 37,0% | 100% |
| Modify the sales capacity | 0,0% | 3,0% | 60,0% | 37,0% | 100% |
| Modify the prospecting system | 0,0% | 3,0% | 60,0% | 37,0% | 100% |
| Modify the loyalty system | 0,0% | 3,0% | 60,0% | 37,0% | 100% |
| Modify marketing | 0,0% | 3,0% | 60,0% | 37,0% | 100% |
| Modify customer visits | 2,0% | 1,0% | 60,0% | 37,0% | 100% |

Sources: Authors, 2022

According to this table, m-commerce has impacted the different essential levels of the sales function. These tasks are of two kinds: operational (execution and administration of sales) and strategic (choice of markets and customers to serve, products / services to offer, market research, sales forecasts, definition of communication methods, ...).

3.4 Change in GRH

The mission of the Human Resources function is to ensure that the organization has the people it needs to function and that these people do their best to improve the organization's performance, while at the same time developing themselves.

The importance of the Human Resources function can be understood on several levels:

- In terms of production, the Human Resources function will enable the company to have competent personnel who can improve the company's productivity.
- On the commercial level, Human Resources management will contribute to the recruitment of efficient and motivated sales personnel (salespeople, store managers). Thanks to them, sales can be improved.
- On the financial level, a relevant management of the personnel will allow to limit the expenses related to the salaries. Salaries will no longer be just a cost for the company, but an investment.
- On a strategic level, the Human Resources function allows the company to differentiate itself from the competition thanks to the excellence of its personnel. This excellence is guaranteed by an efficient control and monitoring system.

The changes brought by m-commerce in these different actions are explained in table 10.

Table 10: Changes in GRH

| Opinions of business leaders Changes in GRH | Totally disagree | Disagree | agree | Very agree | TOTAL |
|--|---------------------|----------|-------|------------|-------|
| Modify recruitment | 1,0% | 19,0% | 51,0% | 29,0% | 100% |
| Modify controls and follow-ups | 1,0% | 4,0% | 64,0% | 31,0% | 100% |
| Modify the payment of salaries | 1,0% | 11,0% | 57,0% | 31,0% | 100% |
| Modify work procedures | 1,0% | 14,4% | 55,7% | 28,9% | 100% |

Sources: Authors, 2022

The majority of respondents mention changes in GRH. These changes are mainly observed at the level of control and monitoring of employees' activities.

The comments collected from the leaders of companies established in the results of our work on the usefulness of m-commerce place as the last usefulness of m-commerce in the organization management of banking relations and the practice of recovery declared by 68% of companies as an essential purpose

of using m-commerce. Facts that confirm the opinions of 80% of respondents on the change in the finance function by m-commerce. It should be noted, however, that according to the results of our study, the change brought about by m-commerce in the GRH and production functions of companies only concerns less than half of the companies.

These different findings validate the hypothesis that the development of m-commerce modifies the way companies operate.

CONCLUSION

The object of our research being to study the range of the development of the m-commerce on the operation of the Malagasy companies. In particular we tried to determine at which stage are the Malagasy companies in terms of use of the m-commerce, and which are the changes brought by this one on their functioning. The results of the analysis showed that Malagasy companies use m-commerce mainly as marketing and sales tools, and also as a means of monetary transaction. Thus, the changes brought by this practice are mainly observable in their commercial and accounting functions.

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ANNEX

Table 11: Characteristics of companies using m-commerce

| --- | Modality cited in n° 1 | Modality cited in n° 2 | Modality least cited |
|----------------------|---------------------------------|-------------------------------------|-------------------------------|
| Sectors of activity | Tertiary: 60 | Secondary: 30 | Primary: 10 |
| Status | SARL: 64 | Individual: 32 | SA: 4 |
| Belonging to a group | NO: 96 | YES: 4 | |
| Size of the company | Average company: 41 | Big company: 30 | Small company: 29 |
| Age of the company | 5 to 10 years: 45 | Over 10 years: 33 | Under 5 years old: 22 |
| Annual turnover | 100 - 200 millions d'ariary: 73 | Less than 100 millions d'ariary: 23 | over 200 millions d'ariary: 4 |

Sources: Authors, 2022