

The role of ICT in the promotion and marketing of local products: Analysis of some examples in the province of Bejaia

دور تكنولوجيا المعلومات والاتصالات في ترويج وتسويق المنتجات المحلية: تحليل بعض الأمثلة في ولاية بجاية

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Abstract:

The integration and implementation of management modalities that incorporate ICT into the process of valorization, promotion, and marketing of local products can constitute a response to the changes that have marked the Algerian agricultural and agri-food sector. This article reflects on the role of ICT in the valorization and marketing of local terroir products in the wilaya of Bejaia. A field survey involving around ten producers from the wilaya of Bejaia was conducted. It aims to determine the approach of ICT use by producers in promoting the product image and improving the organization of the supply to meet both local and national demand .

Keywords: ICT, Local products, Valorization, Promotion, Bejaia

Jel Classification Codes :Q12, Q13

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Introduction:

In the era of new technologies and the digitalization of the global economy, many economies have taken significant steps toward this transition to a fully digital economy. No sector has escaped this openness, and the results have been swift, ranging from time savings to performance and profitability. To ensure the transformation of agriculture, there is no shortage of proposals, particularly those from the Food and Agriculture Organization (FAO), which has established a list of "20 integrated and interdependent actions."

Among these proposals is the introduction of food systems into the digital age. This point is considered the keystone factor in accelerating change in agriculture and all related sectors. Digital technology can help address the challenges in this strategic sector on which the food security of populations depends. Thus, in the new forms of competition that characterize the agri-food sector today, the strategic focus of differentiation through local products offers agri-food SMEs and VSEs new opportunities to explore, and the use of ICT by these companies could be beneficial to them. We have divided our work into two parts. We will present a theoretical framework on the concept of terroir and the psychological and societal levers that underlie the appeal of using the notion of terroir. In this first part, we will also address the growth and interest in digital technology, which facilitates interactions between stakeholders and optimizes product development and marketing processes, irreversibly changing the way consumers and businesses obtain information, communicate, produce, and trade. The second part of this work will present and analyze a field survey conducted on a sample of ten companies in the province of Bejaia. The survey aims to understand the role of ICT in promoting and marketing local products in the wilaya of Bejaia. Our study aims to understand the mechanisms of e-commerce adoption in our sample and identify the reasons that lead individuals to use e-commerce as a tool to promote their local products.

Local Products in a context of concentration in large-scale food distribution and market internalization, the ability of agri-food SMEs to compete with large firms appears, a priori, to be significantly reduced. Although standardization of supply accompanies market globalization, numerous studies demonstrate the persistence of local food trends and the existence of differentiated international demand (Fort & Couderc, 2001). The relatively recent emergence of local products has crystallized the expectations of many stakeholders: increasingly uprooted and nostalgic urban consumers seeking to reconnect with their roots; businesses that find in them a unique way to differentiate their food products; and local policies that see in local products a means of diversifying economies and protecting the environment and regional planning. Therefore, in recent years, we have witnessed the emergence of differentiation strategies, which are being implemented by certain SMEs based on the local area, as well as on the importance of the territory's location.

I-Local Products:

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I-1- Concept of Terroir:

The origin of the word "terroir" comes from the Latin territorium, meaning "territory." Furthermore, while the etymological origin is the same, "territory" does not necessarily equate to "terroir." The word "territory" is polysemous, referring to varied meanings that depend on the perspective, the disciplines that study it, the period, and geography in particular (Lamani, 2014). The word "terroir" is one of the oldest words in the French language; it is a concept closely tied to rural areas and agricultural production, reflecting the influence of land and its surrounding environment. Terroir refers to a group of terroirs whose natural characteristics (soils, subsoil, relief, and climate) constitute a unique blend that confers specific characteristics on the products produced there via plants and animals. Humans have adapted their production practices to these particular conditions of the natural environment best to reveal the specific characteristics of these unique places" (Mesnier, 1996).

A local product is a product that comes from—or whose main components come from—a delimited and homogeneous territory and whose characteristics that significantly distinguish it from products of the exact nature are based on the specificity of this territory. Its characteristics depend both on the particularities of the environment, such as geology, climate, relief, culture, and history, as well as on the knowledge and know-how, traditional or emerging, of its inhabitant.

I-2-The Specific Characteristics of Local Products :

Local products today often serve as an archetype of postmodern products, which capitalize on nostalgia, authenticity, and a connection to a particular tribe (Fort, 2006). Local food products have become a commercial reality, experiencing strong and steady growth over the past decade. Two strong and omnipresent dimensions in the characteristics of local products should be noted: A territorial dimension linked to a geographical origin, on the one hand, and a cultural and historical dimension, on the other. Three parameters are regularly invoked regarding local products (Fort, 2006):

- ✓ The origin of the raw material: This is the most accomplished characteristic of local products. It is required in the controlled designation of origin (AOC) and the protected designation of origin (PDO).
- ✓ The regional or local origin of the recipe or know-how: This type of connection with a place is often based on the history and culture specific to a region.
- ✓ The history of the company and its owner has enabled them to acquire expertise and a reputation as a "local figure" over several years.

Indeed, local products are not only the products of a place; they are above all factors of identity and sociability: the terroir gives meaning to taste because it contains relationships. A relationship that is part of the long-term construction of local and regional identities (Delfosse, 1991).

Today, there are local products on the market that come from local raw materials (fresh fruits and vegetables), products that are made from local raw materials and with a traditional recipe or old know-how (in particular AOCs, local cheeses, etc.), products made with raw materials from outside the local area (and sometimes even imported) but respecting a traditional recipe and know-how, and products linked more to the old territorial roots of the producer's family (olive oil, canned vegetables, etc.).

II-ICT as a lever for marketing agricultural products :

With the use of ICT, specifically the Internet, borders have become increasingly blurred, and new cultural and commercial exchanges have emerged. Never before have humans been able to access information and communicate with each other so easily. As McKinsey pointed out in its

report "No Ordinary Disruption," it took 38 years for radio to reach 50 million users, 13 years for television, three years for the Internet, and only 12 months for Facebook (Detout & Monein, 2017).

Because of the development opportunities they offer, ICT has acquired a central place in countries' trade development policies. The ongoing technological progress in the production of goods is closely linked to that in the services sector, to the point that the flow of goods and services is increasingly facilitating the exchange of information. In this context, e-commerce emerges as one of the emblematic figures of this phenomenon, which intertwines values and practices, informational capital, and material capital (Salançon, 2006). In this regard, the global explosion of e-commerce is unprecedented. According to the research institute eMarketer, in 2021, global retail e-commerce sales reached \$4.921 trillion. This represents a 16.8% increase compared to 2020.

The strategic use of digital technologies, data, and innovative digital-based business models has accelerated the sustainable transformation of countries' agricultural sectors. The digitalization of agriculture is the use of digital technologies, data, and business model innovations to transform practices along the agricultural value chain and address bottlenecks in agricultural productivity, post-harvest management, market access, financing, and supply chain management to increase smallholder farmers' incomes, improve the economics of the agricultural value chain for agribusinesses, expand the economic inclusion of youth and women, improve overall food and nutrition security, and strengthen climate resilience (Technical Centre for Agricultural and Rural Cooperation report; CTA, 2019).

The management and distribution of agricultural production have always been vital components of the agricultural sector and the food systems of economies. In today's digital age, it is only natural that agricultural product management and distribution functions are being introduced to the digital world. Remaining competitive and innovative in a constantly changing market requires an increasing shift toward 2.0 solutions. In addition to helping farmers manage their farms, the digital revolution provides support in the more commercial aspects of their work, ensuring easier and faster communication between suppliers and producers, as well as between producers and consumers. Indeed, many farmer-producers are moving away from traditional distribution channels to offer their products directly to customers through e-commerce platforms or websites, thus enabling the return of short supply chains in marketing and distribution. The multifunctionality of Internet technology—from product and company information to sales transactions and order management—is a compelling argument and a significant draw for adopting this technology. However, trading via the Internet is leading farmer-producers to redefine a set of objectives and resources necessary to achieve this new strategy of adding value to their production. This highlights the fact that producers must master direct customer relationship management, thereby promoting their production more effectively.

III-Analysis of the Use of ICT in the Marketing and Promotion of Local Products in the Province of Bejaia :

In this section, we present and analyze the elements of our field survey, which targeted ten companies in the province of Bejaia operating in the agricultural sector and the processing of agricultural products. This survey aims to determine the role of ICT in the marketing and promotion of local products in the province of Bejaia. The methodology used in our work is a questionnaire survey conducted with ten companies in the province of Bejaia, which responded favorably and agreed to collaborate with us. The survey allowed us to directly assess the perceptions of ICT and aspects of its adoption by our sample. The questions addressed aim to determine the extent of ICT use by the ten companies and measure the direct impact of ICT use on the professional activities of our sample. Access to the Internet, the use of social networks for professional reasons, digital skills, and e-commerce, as well as the obstacles and constraints to the use of ICT for marketing and promoting local products, are all issues that we addressed in our fieldwork.

III-1-Respondent Identification:

Table (1) details the distribution of the surveyed companies by sector of activity, whether they hold a certification or a craftsman's card, and whether they export. Eight companies operate in the agricultural processing sector, one company operates in the agricultural production sector, and one company surveyed operates in both sectors. Of the ten companies, nine have a craftsman's card, two have certification, and two companies have successfully positioned themselves on the international market by exporting their goods. Seven companies surveyed intend to export their products.

Table n°1: Distribution of companies according to sector of activity, certification, export and possession of a craftsman card

Sector of Activity	Producer-Farmer	Processing of agricultural products		
Number	2	9		
Artisan card	2	0	6	0
Label	1	0	1	0
Export	1	0	1	0
Export intention	1	0	6	0

Source:produced from the author's database.

It should be noted that, apart from one company created in 2015 (Romais), the remaining nine companies were newly established between 2020 and 2022. The companies are tiny businesses, and their number of employees varies between [2 to 7].

Table n°2: Distribution of companies surveyed according to the gender and level of education of their manage

	Male		Female	
No education	0		0	
Primary or lower secondary education	1		0	
Lower secondary education	0		0	
Upper secondary education (high school)	0		1	
Higher education	4		4	
Does your company use a third party to manage your social media?	Yes	No	Yes	No
	1	4	1	4

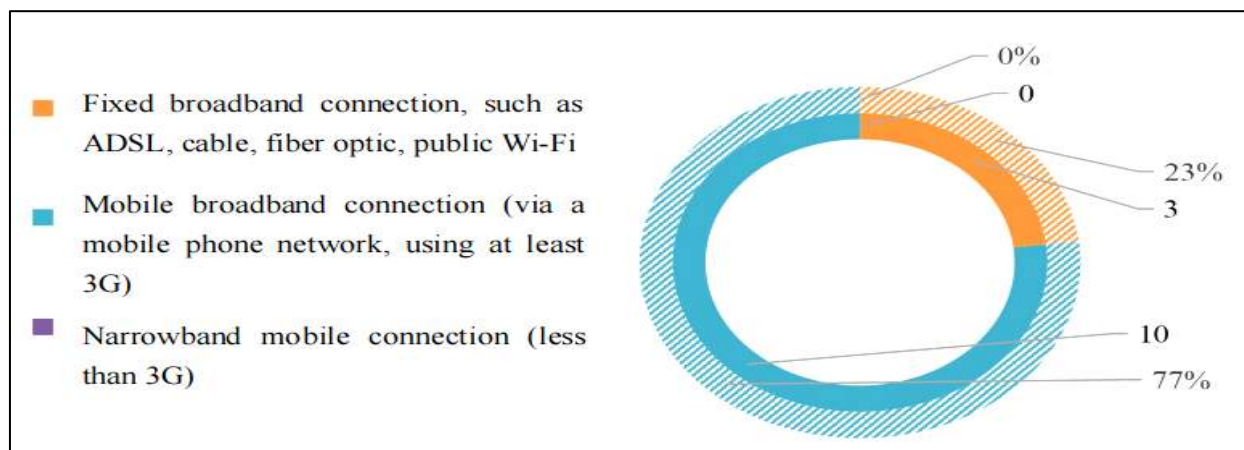
Source:produced from the author's database.

Table (2) shows the distribution of the surveyed companies by gender and education level of the managers. Five companies are male-owned, and five are female-owned. For eight companies, the education level of their managers is equivalent to higher education; one manager has a primary education, and another has a secondary education. The managers' ages range from [24-61] years.

III-2-Company Access to ICT:

All ten companies in our sample are connected to the internet and have access to a computer. Based on the responses from our sample, mobile broadband is by far the most common form of internet access: All ten companies use a connection via a mobile phone network, and only three of these ten companies also use fixed broadband internet (ADSL, cable, fiber optic).

Figure n°1 : Types of internet access services used



Source: produced from the author's database.

III-3-Frequency of ICT use for Business :

Purposes Seven of the ten companies in our sample (70%) reported using the Internet for business purposes every day or almost every day (Table 3), compared to 2% (20%) that did so at least once a week. One company reported using the Internet less than once a week.

Table n°3: Frequency of Internet use for professional reasons

Frequency of Internet use for business reasons	Number of businesses
Every day or almost every day	7
At least once a week (but not every day)	2
Less than once a week	1

Source: produced from the author's database.

III-4-Use of social media for Business Purposes :

Regarding the use of applications for making voice or video calls over the Internet, eight companies in our sample reported having already used these applications. Regarding social media, the ten companies surveyed have a page on Facebook or Instagram. Only two of these ten companies confirmed having a multimedia content-sharing website, namely YouTube. It should be noted that two of the ten companies surveyed reported using a third-party service to manage and develop their social media accounts. In both cases, this third party was a family member. The use of ICT specialists is a practice unknown to the companies in our sample.

Table n°4 : Social media and applications used by companies for business purposes

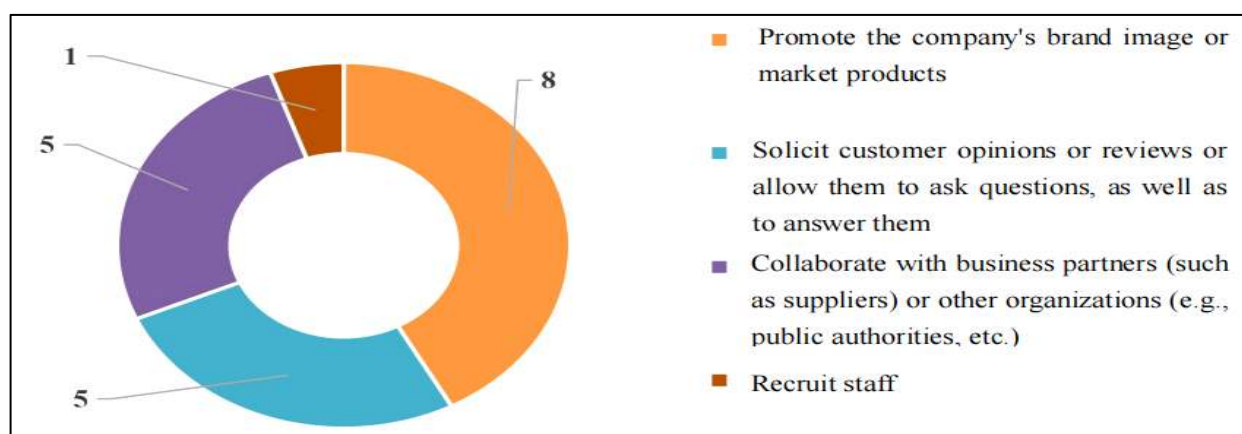
The following social media are used by the company for business purposes	Number of companies
Applications for making voice or video calls over the internet (e.g., Skype/Skype for Business, WhatsApp/WhatsApp Business, Facetime, Viber)	8
Social networks (Facebook, Instagram, etc.)	10
Company blogs or microblogs	0
Media sharing websites (YouTube, etc.)	2

Source: produced from the author's database.

III-5-Reasons for Using Social Media :

The primary reason companies in our sample use social media is to promote their brand image and market their products. Around eight companies chose this answer (Figure 2). Five companies considered the use of social media beneficial for collaboration with business partners, and five also considered that they use social media to solicit customer feedback or reviews. Finally, only one company used social media to recruit staff.

Figure n°2: Raisons of utilization of social media



Source: produced from the author's database.

III-6-E-commerce:

According to the responses we collected, e-commerce is a highly sought-after marketing channel of great interest to the companies surveyed. Eight of the ten companies surveyed reported receiving online orders. Six of the ten companies surveyed placed orders online. Companies that engage in e-commerce primarily target domestic consumers (eight companies), followed by local consumers (six companies). Table 5 shows that eight companies made online sales to private consumers (B2C), and only two companies made B2B sales. Regarding the consumer categories targeted in private sales, seven of the eight companies target all categories of people, while only one company directly targets female customers.

Table n°5: Customer Types and Targeted Consumer Categories

type of customer with whom the company received or placed	Number	orders Targeted Private Consumer Categories	Number
B2C (Business-to-Consumer, sales to private consumers)	8	Yonth	0
		Women	1
		Men	0
		Aull categories	7
B2B (Business-to-Business, sales to other companies)	2		

Source:produced from the author's database.

Regarding the difficulties encountered when selling or ordering online, four companies reported an obstacle to conducting e-commerce activities: the high costs of delivery or returning products. These companies aim to professionalize their transportation and logistics activities.

III-7-Aspects Changed Following:

The Use of ICT by Companies The aspects changed following the use of ICT by the ten companies surveyed were interpreted using Table 6. Seven out of ten companies reported an improvement in the visibility of their product following the use of ICT. Seven companies experienced an increase in product marketing following the adoption of ICT and e-commerce. These companies also found that ICT facilitates collaboration with business partners. Regarding the increase in their performance, profitability, and responsiveness to change, six companies noted a positive impact from the adoption of ICT in this regard.

Table n°6: Aspects modified following the use of ICT in the company

Has the use of ICT in your company changed any of the following aspects?	Number of companies
The visibility of your product	7
The marketing of your product	7
The ease of collaboration with business partners and the government	7
The ease of collaboration with business partners and the government	6

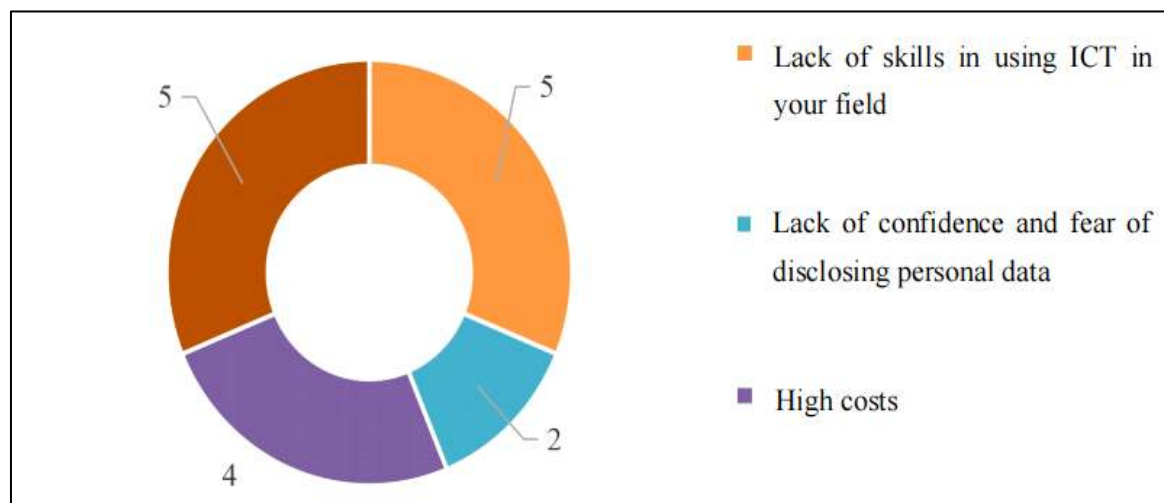
Source: produced from the author's database.

III-8-Difficulties Encountered in the Adoption and Use of ICT :

Regarding the difficulties encountered by companies in adopting ICT, five companies noted a lack of skills in using ICT, and five companies mentioned insufficient services from relevant organizations. Four companies cited the high costs of ICT as a challenge. However, the ten

companies appeared to be less concerned about the variables of lack of trust and fear of disclosing personal data; only two companies were sensitive to this criterion.

Figure n°3: Challenges encountered in adopting and using ICT



Source: produced from the author's database.

Conclusion:

Faced with the exponential growth in demand for agricultural and agri-food products, agriculture is at the heart of significant changes, requiring adaptations in terms of modernization and innovation. "Harnessing the potential of digitalization to increase agricultural production and productivity while improving sustainability, resource efficiency, employment and entrepreneurial opportunities, and living conditions" is the strong message of global discussions on agriculture and food security. Developing a dedicated digital strategy indeed remains the last resort for addressing many issues facing farmers today and tomorrow. While the transformation of agriculture through new technologies is already underway globally, in Algeria, the steps towards digitalizing agriculture have only just begun. Our survey revealed that the companies surveyed are aware of the importance of such a transition. In the province of Bejaia and Algeria, in general, local products are often associated with the development of the hinterland. They are increasingly becoming a product of rural identity. Driven by local initiatives, often led by women, the promotion of local products through ICT can enable local development in the territories of the province of Bejaia. However, the online marketing of these products remains informal and suffers from poor communication and digital marketing skills, as well as inefficient distribution networks. Finally, it is worth noting that eight out of the ten companies surveyed wish to regulate their online marketing and sales activities.

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