What processes and factors enable the growth of the full-service restaurant industry through click and collect?

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Abstract:

From brasseries to Michelin-starred restaurants, many restaurant owners who had developed their click and collect offer during the pandemic have nevertheless stopped this distribution method, despite the fact that it is profitable according to national figures. Therefore, it seems important to better understand the reasons why restaurant owners in France intend to maintain vs interrompt a home delivery or click and collect meal offer, and to detect the resistance to this innovation. In this perspective, we propose and test a model based on two theories in the field of innovation management and entrepreneurship: (1) the Technology-Organization-Environment (TOE) model, and (2) the Actor-Network Theory (ANT). The results are useful to better support restaurant owners in their digital transformation and thus contribute to meeting the expectations of a new generation of consumers.

Keywords: home delivery and click & collect meal offer, innovation adoption, digital transformation, Technology-Organization-Environment model, actor-network theory

INTRODUCTION

Meal delivery has become very popular among French people, who order from home or at work as evidenced by the increase in the adoption rate of delivery platforms. As key players, restaurant owners must adapt their offer to meet this new demand. All the more so as this distribution method is no longer the exclusive preserve of fast-food restaurants: All restaurants, even full-service restaurants wich include family, casual and fine dining or Michelin starred restaurants (Sun et al., 2022; Batouei et al 2023), were able to experiment with click and collect and delivery during the COVID pandemic lockdown with more or less difficulty and challenging (Batouei et al., 2023; Bonfanti et al., 2023; Jeannot et al., 2022). They are referred to in the literature as a category of restaurants that provide full table service (customers are welcomed and placed by waiters who take and deliver orders directly to the table) (Batouei et al., 2023). These restaurants concentrate on the in-person dining experience with an emphasis on the quality of ingredients, the standard and level of services, and restaurant ambiance (Liu et al., 2018). They include family-friendly, relaxed, and fine dining establishments with Michelin stars (Sun et al., 2022; Batouei et al., 2023). According to Sanghyeop S. Lee et al. (2020), these restaurants typically rely on the hedonic, symbolic, and pecuniary value that customers bring. For Erkmen and Hancer (2019), this value frequently depends on the subjective and sensory pleasures brought on by the surrounding environment, social interactions, aesthetics, design, and service delivery techniques. Because the majority of these characteristics are absent from the online food ordering business model, it is important to identify the service attributes that full-service restaurants can use to increase their competitiveness in online food ordering markets. Thus, although some restaurant owners have rethought their economic model to integrate this new service, a recent study nevertheless highlights the difficulties of adaptation on the part of professionals (Jeannot et al., 2022). This study also reveals that difficulties exist in the organization of kitchens, in the creation of culinary offers specific to delivery or in the use of appropriate packaging. It also indicates that the importance of the digital experience for the customer when ordering still seems to be poorly understood by the professionals in the sector. Indeed, after the end of the confinements, many restaurant owners who had developed their delivery or click and collect offer stopped this distribution mode, even though it was profitable according to national figures. Neverthless some restaurant owners have maintained this type of offer on a regular basis or during special operations and have rethought their economic model to integrate this new service, in order to generate additional revenue without increasing restaurants' seating capacities (Vo-Thanh et al., 2021; Batouei et al 2023). The problematic of this paper is therefore the following: By what mechanisms and under what conditions does click and collect make it possible to develop the business of full-service restaurants, from brasseries to starred restaurants?

To answer this question, we propose to test a model that draws on previous research conducted in the field of haute gastronomy (Jeannot et al., 2022) and that is based on two reference theories in the field of innovation management and entrepreneurship: (1) the Technology-Organization-Environment (TOE) model, and (2) the Actor-Network Theory (ANT). By taking into account the technological context of the sector, its competitive context, but also the organizational context of the restaurants tested, and by integrating a series of control variables specific to the current configuration of these establishments, this study makes it possible to identify the potential for adoption of the click and collect offer by professionals. To this end, a questionnaire was administered using the Qualtrics interface®, and the data processed using structural equation modeling and Amos statistical software®. The first results from this study will be presented at the conference.

THEORETICAL FRAMEWORK

Click & collect or Online food ordering is "the process of ordering food, for takeout or delivery, from a restaurant website or other third-party application" (Batouei et al. 2023, p.1). Research on the Click & collect in gastronomy focuses on the customer perspective (Batouei et al. 2023, Jeannot et al., 2022; Bonfanti et al. 2023) and rarely on the organizational perspective (Bonfanti et al. 2023; Jeannot et al. 2022). As a result, over the past couple of decades, the adoption of e-business by small and medium-sized enterprises (SMEs) has called the attention of a number of researchers interested in understanding the process of digital transformation of these organizations (Taiminen and Karjaluoto, 2015). It emerges from the existing literature that SMEs are understudied because they are not very aware of the opportunities of these new technologies, and they do not consider this path due to lack of resources and skills (Giotopoulos et al., 2017). Matarazzo et al., (2021) specify that the literature should enrich knowledge on SMEs using new technologies to rethink their business and propose a redesign of the value creation process for the customer. Our article thus aims at a deeper understanding of the challenges of digital transformation for restaurants considered as traditional SMEs. In order to explain the reasons why restaurant owners intend to maintain (or not), to develop (or not) a click & collect meal offer, we propose to develop and test a conceptual model adapted to the issues at stake.

The theoretical model of this research mobilizes the Technology-Organization-Environment (TOE) framework, which serves as the overall theoretical basis for the following analysis. This is complemented by Actor-Network Theory (ANT), in order to more effectively explain the adoption and diffusion of the organizational innovation studied in this paper (Hsu et al., 2006).

(1) The Technology-Organization-Environment (TOE) model

The Technology-Organization-Environment (TOE) model of Tornatzky et al (1990) focuses on the impact of the context in which the innovation is introduced by a company. This framework is regarded as an "organization-level theory" that highlights three firm-related contexts: technological, organizational and environmental (Shree et al., 2021) p. 359).

According to Tornatzky et al. (1990), the technological context is studied from an internal and external point of view. Internally, it is concerned with the equipment available as well as the processes and characteristics of the technology. Externally, the technological context focuses on the availability of the technology, its relevance to the company and its suitability for the organization's technological resources and skills. The organizational context refers to the characteristics of the firm's organizational structure and the different resources available to it, such as the size of the firm, the human resources and skills of the employees, the organizational management structure, the degree of centralization and the degree of formalization. The environmental context takes into consideration the size, characteristics and structure of the industry, the firm's partners and competitors, the macroeconomic context and the regulatory environment (Tornatzky et al., 1990).

This framework is particularly relevant to explain and understand adoption decisions according to many authors in the literature. Several authors have mobilized the TOE model to identify factors that affect technology adoption, for example in the context of organizational adoption of green IT (Thomas et al., 2015), for the diffusion factors of Software-as-a-Service or SaaS (Martins et al., 2016), or for the adoption of big data in a B2B context (Sun et al., 2020) and for small and medium-sized enterprises (Maroufkhani et al., 2020). The model is also considered in cloud computing adoption (Yang et al., 2015), e-commerce adoption (Idris, 2015), AI adoption in manufacturing and production firms (Chatterjee et al., 2021), etc. Nevertheless, most of the time, the framework is used in the setting of industry. Our study may lead to new insights by

extending this framework to a previously unexplored field of study that has certain unique characteristics and diverse contexts, like the gastronomy industry.

(2) The actor-network theory (ANT)

Actor-network theory (ANT) consists of describing and analyzing the process of network development. It expands the notion of actor to consider the role of humans and non-humans as objects (Akrich et al. 2002 a,b; Akrich et al. 2006). With such a postulate, ANT provides tools to explain and understand the process by which things are made and unmade in the image of a society constantly in the process of becoming and whose entities are constantly in (re)construction (Callon, 2001). We suggest using the variable networking capacity in our model to explain why restaurant owners adopted the click & collect offer. Since network resources provide compensatory sources of internal resources, enable learning opportunities from the experiences of other organisations while bridging knowledge gaps (Soluk et al., 2023), and play a significant role in SMEs, we believe they could be relevant for SMEs when restaurants adopt Click & collect and delivery service offers. Indeed, this capacity offers the possibility for firms to develop networks conducive to the implementation of the technological innovation and to access a set of important and related resources through this network (Mu et al., 2017).

The networking capability facilitates access to market intelligence from the network of partner and collaborating actors who can act as facilitators of technology innovation diffusion and implementation. The network provides dynamic capabilities that enable the company to gain a sustainable competitive advantage. Network firms must continually build, reconfigure, and revitalize their capabilities by tapping into and leveraging the resources of their business partners (Mu et al., 2017). Referring to the above theories, we propose the following conceptual model and make the following assumptions:

Insert here figure 1

The following assumptions were made.

Insert here table 1

METHODOLOGY

A questionnaire was created and sent to chefs or managers of brasserie, bistro and gastronomic restaurants. This data collection was partially made through a collaboration with the company My Beezbox[1]. The restaurateurs participating in the study had to meet certain criteria: the catering offer must be at least premium bistronomic or ideally gastronomic. Thus, the restaurateurs listed by the following guides were privileged: Michelin Guide, Gault & Millau, Guide Lebey, Relais & château, LA LISTE, culinary colleague of France. Moreover, the Tiptoque platfom, allowed us to identify restaurateurs with a delivery and *click & collect* offer.

The respondents answered declarative questions, i.e. they stated their opinion on a number of topics. The questionnaire was administered using the Qualtrics® interface. Professionals working in restaurants in various positions were interviewed. 225 complete data sets were collected. Various precautions were taken to limit response bias, and we adapted existing scales with satisfactory psychometric qualities to measure our constructs. We used different types of

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[1] which helps actors in the gastronomy and tourism sectors to diversify their activities and generate additional revenues through digital tools : https://www.mybeezbox.com/

scales. In particular, the activity share is the difference between the activity share expected in 5 years' time and that expected at the end of the year.

RESULTS

The data were analyzed using the structural equation modeling method. The analyses show good indices of measurement model adequacy. The indices of reliability, convergent validity and discriminant validity are also good. The Bollen test shows that the model is robust and that the bias of the common method is really limited in this data set. The results show that each of the measurement variables is significantly related to the latent construct specified in the model. The structural model also presents satisfactory fit indices. Most of the proposed relationships are statistically significant. This is particularly true for internal and network resources, relative advantage, and complexity. The analyses show that steps 1 and 4, namely online ordering and unpacking, are perceived by foodservice professionals as significant sources of complexity. The interaction between innovativeness and star rating is also statistically significant. As far as environmental factors are concerned, it turns out that click and collect adoption depends more on what competitors are doing than on customer expectations. The intention to adopt click and collect has a significant influence on the market share that restaurants intend to give it. Finally, the detailed moderation analysis using the floodlight approach and the macro Process for SPSS shows that the influence of innovativeness on the intention to adopt click and collect becomes statistically significant from two stars upwards, i.e. for two and three stars, and is marginally significant for one star, and insignificant for zero stars.

These results offer valuable insight within the TOE framework by identifying the factors influencing click-and-collect offerings adoption intention. Our framework provides categories for the organization and the environment in addition to the technology itself. We identified drivers and barriers and a boundary condition in response to our research question. This study expands the original TOE model by integrating network theory, considering innovativeness as a boundary variable, and hierarchizing the impact of the stages of the customer journey as sources of complexity.

DISCUSSION

The framework comes at a critical time, as organizations are wondering if it's relevant to maintain or develop click-and-collect offerings after testing it during the COVID crises. For a long time, this profession has focused on the core of the service, that of preparing and serving dishes. With the development of technology, chefs are increasingly required to adopt various digital tools that evolve and even disrupt their services. Today, they will also have to become digital experts in order not to leave the translation of the meaning of their cuisine in the hands of web experts alone. Because they are the only ones able to transmit the sensory experiences that the Internet user will seek at the time of his order and that will trigger the purchase. Therefore, beyond the additional training that this imposes, the introduction of digital in the business model of companies in the sector has important repercussions on the operation of the restaurant and affects several positions and functions of the company, both on the reconfiguration of kitchens and positions, as well as on new full-fledged functions such as a community manager for example. It also requires a rethinking of the image and positioning of the establishment.

The adoption of click & collect by some restaurateurs was accelerated during the health crisis where most chefs showed their reactivity and their ability to adapt. However, to maintain and develop click & collect, it is necessary to invent new culinary experiences that take into account the specificities of digital technology. This requires investments at several levels, both in terms of technological equipment and in building a team with dual skills in gastronomy and digital

transformation. The adoption of the click & collect offer requires the development of digital capabilities, the development of a phygital customer experience enhanced by various innovations and supported by a leadership that embodies a vision that favors this digital transformation at the organizational level. These implications need to be further researched in the future in order to take into consideration the future evolution of this sector of activity.

CONCLUSION

To conclude, french full-service restaurants were the focus of this investigation. In order to attain higher generalizability, future research can use a sample that represents a wider geographical distribution. Moreover, as click-and-collect services are evolving quickly as much as market needs and competitive pressure, a longitudinal approach would make it possible to understand the evolution of the model's factor weights over several years.

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Figure 1: Proposed Modeling
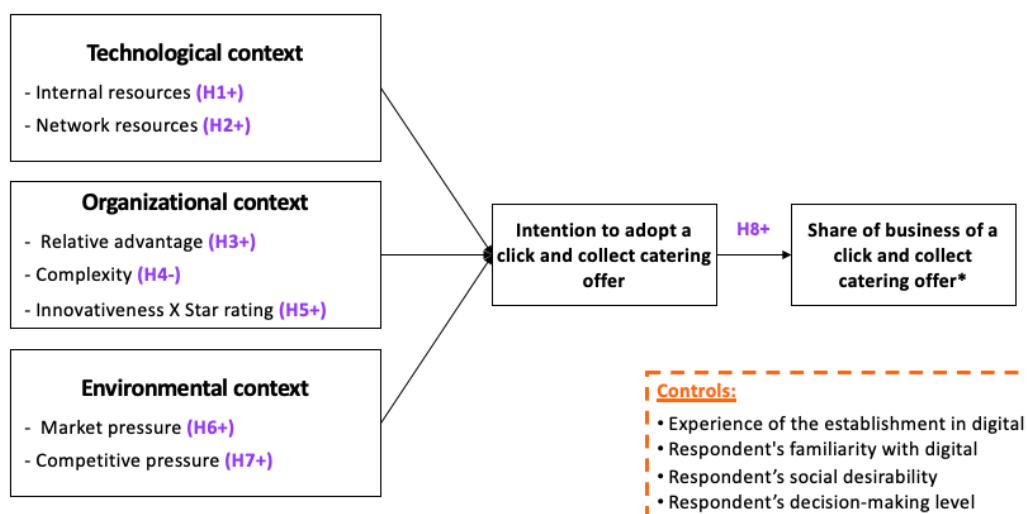
Difference between the expected share of business in 5 years and the expected share of business at the end of the year .

Table 1

H1	Internal resources positively influence the intention to adopt a click and collect catering offer.
H2	Network resources positively influence the intention to adopt a click and collect catering offer
H3	The relative advantage of click and collect positively influences the intention to adopt a click and collect catering offer.
H4	The complexity of click and collect negatively influences the intention to adopt a click and collect catering offer.
H5	The establishment's innovativeness moderates the influence of star rating on the intention to adopt a click and collect catering offer, such that there is a positive influence for high levels of star rating but no influence for low level of star rating.
H6	Market pressure positively influences the intention to adopt a click and collect catering offer.
H7	Competitive pressure positively influences the intention to adopt a click and collect catering offer.
H8	The intention to adopt a click and collect catering offer positivity influences the share of business of a click and collect catering offer.