Master thesis

Open Innovation as source of competitive advantage in foodservice: a case study of a Dutch firm.

Hector Parra

Master Food Technology
Food Innovation and Management specialization

Supervisor: Maria C. Annosi

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1 Introduction

In recent years, innovation has been recognized as a fundamental aspect for the favorable firm performance, a source of competitive advantage as well as a key determinant of the company's survival (Bigliardi & Galati, 2013; Saguy, 2011; Sarkar & Costa, 2008; Sisodiya, Johnson, & Grégoire, 2013; Traitler, Watzke, & Saguy, 2011). Due to the emergence of new technologies, higher environmental pressure, constant changing consumer expectations among other factors (Huizingh, 2011; Saguy, 2011; Traitler et al., 2011) companies can no longer rely only on their own developments (Traitler et al., 2011). Consequently they need to adopt an Open Innovation (OI) approach by sourcing knowledge or skills that are found outside the firm(Sarkar & Costa, 2008) outdating the "do it yourself" mentality in innovation management (Huizingh, 2011; Saguy, 2011).

OI in the food manufacturing sector is in a growing phase and it has been adopted gradually among large international food companies (Bigliardi & Galati, 2013; Huizingh, 2011; Sarkar & Costa, 2008). This approach can help achieve a faster time to market, lower R&D costs, better adaptation to customer needs (Bigliardi & Galati, 2013) and overall increase the firm performance in terms of profitability (Cheng & Shiu, 2015), R&D performance, customer satisfaction, product innovativeness and new product success (Cheng & Huizingh, 2014).

OI has been widely investigated within the food manufacturing sector, however the services domain has received less attention (Janeiro, Proença, & da Conceição Gonçalves, 2013; Mention, 2011; Mina, Bascavusoglu-Moreau, & Hughes, 2014; Ottenbacher & Harrington, 2009). This might lead to the misperception that innovation in services is less relevant than in manufacturing, nevertheless it has been argued that the service sector plays a crucial role in the economy (Janeiro et al., 2013; Mention, 2011).

Within the service sector, the food service industry is often classified as not so innovative and low technological, however the food preparation in this field has become more industrial (DiPietro, 2017). Moreover, the innovation process within foodservices can be considered as more complex than in the manufacturing sector, since it requires innovation techniques in both, the new product development and new service development (Ottenbacher & Harrington, 2009). The few innovations introduced by foodservice firms are based on gradual improvements by trial, intuition or artistically and do not involve high technological developments like new ingredients, packaging or equipment (Rodgers, 2007). Recently, foodservice companies have increased the interaction with customers, suppliers or food technologist in order to access their innovations, technologies and knowledge to later adapt them into the foodservice context (DiPietro, 2017). However, it seems that due to firm's specific characteristics like a lack of

resources, competences, abilities or technical expertise; firms still have difficulties to absorb, exploit and benefit from the incoming information (Mention, 2011; Rodgers, 2007).

It can be argued that open innovation activities are not equally effective for all firms, there are several internal and external factors that impact the performance gains that a firm can obtain from OI (Cheng & Shiu, 2015; Sisodiya et al., 2013; Spithoven, Clarysse, & Knockaert, 2011). Those aspects affecting might be encompassed by a specific organizational configuration.

The term of organizational configurations has emerged as a means to explain the real organization effectiveness (Pinto & Curto, 2007) based on key attributes like strategy, goals, structures, technology and decision making process (Short, Payne, & Ketchen Jr, 2008). The organizational configuration establishes the relationship between strategies and performance, also explain how an organization responds to the problems generated by the technologies and processes that it uses (Walker, 2007) and it can be considered as an essential means to analyze open innovation in food service firms.

This study focuses on understanding how the organizational configuration such as internal assets and conditions can impact the adoption and the gains that a firm can obtain from the assimilation of external knowledge and skills. The thesis is composed of the following sections. Section 2 gives a conceptual background and literature review related to innovation, innovation in food services and more specifically open innovation, finalizing with the identified research gaps. Section 3 describes the research design and methodology for this study. Section 4 presents the findings as a theoretical framework and propositions. Section 5 discusses the implications of the research. Finally, section 6 present the conclusions and future opportunities for research.

2 Theoretical Background

To help analyze the case data, theories from several distinctive theories were consulted and gathered. Each concept is obtained from a unique literature stream and propose a unique perspective on how to engage in an open innovation approach. Additionally, prior researches on innovation in food service were reviewed. Research gaps, where no fully intergradation of these theories was noticed, are presented. The case data facilitated the identification of concepts from the theories, which could explain how firms' organizational conditions influence the engagement of novel product innovation strategies. The subsequent sections present and overview of the theoretical viewpoints that arose from the comparative case analysis.

2.1 Dynamic capability

Previous researches have argued that, in order to sustain a competitive advantage in dynamic and rapidly changing environment, is necessary to develop dynamic capabilities (Belkahla & Triki, 2011; Eisenhardt & Martin, 2000; Liao, Kickul, & Ma, 2009; Teece, 2007). The concept of dynamic capability concept can be defined as the ability to reorganize the resources and capabilities, and dynamically align them with the changing environment and the opportunities presented to constantly innovate and create its unique competitive advantage(Liao et al., 2009). It is constituted by learned and stable patterns of collective activities that generate and modify operating routines in pursuit of improved effectiveness (Belkahla & Triki, 2011). A dynamic capability has the objective of integrate, build, and reconfigure internal and external competencies to address rapidly changing environment (Eisenhardt & Martin, 2000). This capability embraces the firm's capacity to alter the ecosystem it occupies, develop and create new products and processes, and design and implement viable business models to respond to changing market circumstances (Teece, 2007). Dynamic capabilities are the drivers behind the conception, evolution and reconfiguration of other resources into novel sources of competitive advantage (Eisenhardt & Martin, 2000). According to (Teece, 2007) it involves the capacity to: (1) sense and shape opportunities and threats by scanning, searching and exploring local and distant technologies and markets; (2) seize opportunities which involves sustaining and improving competences and complementary assets to develop novel product architectures and business models; (3) recombine and reconfigure resources and organizational structures and configurations to maintain an evolutionary fitness and avoid unfavorable environmental conditions. This framework explicates the strategic actions and procedures needed to guarantee that opportunities are sensed, seized and how business can be rearranged in highly dynamic market or environment, and serves as a predominant framework in this study.

2.2 Innovation

Innovation can be defined as the generation and implementation of new or improved processes, services, products, production methods or a single activity intended to increase the competitiveness or wealth of a firm (Forsman, 2011; Olavarrieta & Villena, 2014) and overall impact the firms' success (Chatzoglou & Chatzoudes, 2018). The tendency of a company to innovate is represented as a dynamic capability (Helfat et al., 2009) or managerial levers that enable a dynamic innovation capability that improve the business performance (Crossan & Apaydin, 2010). Numerous theoretical works have sustained that innovation impacts positively the performance, customer satisfaction and added value (Berkun, 2010; Nobre, 2011). Moreover, innovation can be used strategically with the purpose of achieving competitive advantage (Crossan & Apaydin, 2010; Keupp, Palmié, & Gassmann, 2012). Early works like (Drucker, 1985; Miles,

Snow, Meyer, & Coleman Jr, 1978) recognized that innovative companies have more flexibility and greater capacity to adjust to transformations, responding fast to changes, detecting opportunities while exploiting existing ones to avoid, to a certain extent, competition. Furthermore, according to (Ponter et al., 1998), a competitive advantage is developed when the possessed resources and capabilities are superior, consequently the firm is able to deliver greater value to customers. Thus, it can be argued that a competitive advantage is achieved by reacting, adapting, reallocating the available resources and address emerging opportunities superiorly to the competitors. Innovation as a source of competitive advantage goes beyond product and process, as argued by (Hinterhuber & Liozu, 2014), other innovative strategies such as proper pricing models or service delivery time also enable a higher organizational growth and higher customer satisfaction. Overall, organizations with a higher level of innovation seem to have a better performance and therefore a unique competitive advantage, either by the introduction of superior new products or services compared to competitors; novel innovation processes that add value to the existing or new offers; or new implemented strategies that offset unfavorable conditions of the environment (Chatzoglou & Chatzoudes, 2018).

2.3 Innovation in the service field

Innovation can compromise two main approaches, new product development (NPD) and new service development (NSD). While NPD focuses on the development of physical goods, NSD specialize on the development of new intangible offerings like financial, health care, telecommunications, and hospitality services (Ottenbacher & Harrington, 2009).

Product innovations and service innovations are often considered to be similar, and are associated with the creation of new markets (Forsman, 2011). However, service firms seem to innovate though different forms and extents than the manufacturing industry, since the production and consumption of services occur simultaneity (Forsman, 2011; Hollenstein, 2003; Mina et al., 2014). For instance, there is a higher involvement of the customer in the conception and execution process, resulting in an intense interactive process between the supply and customer side, to the extent that some new service developments are considered as highly co-constructed (Hollenstein, 2003; Mention, 2011). Furthermore, innovation capacity in service firms is dependent on firm's capabilities, external input through networking (Forsman, 2011), human resources, organizational aspects and is characterized by low R&D investments (Forsman, 2011) and non-technological developments (Hollenstein, 2003).

Food service developments compromise both product and service innovation, as it involves the development of physical food items as well as other intangible features like: the meal experience, service

and atmosphere (Jones, 1990). Innovations in the food service can be focused on efficiency, product/service development, image management (marketing strategies) and differentiation (specialization strategies) (West & Anthony, 1990). Nevertheless, the food service industry is not recognized as highly innovative (DiPietro, 2017), due to the predominance of artistic and intuitive product design, low technology approaches and the lack of scientific ''know-how'' (Rodgers, 2008). Food service firms, which are often smaller in size compared to food manufacturing firms, do not have research and development laboratories as such and often the latest developments in engineering (equipment) and food science (new ingredients) are brought by the suppliers (Rodgers, 2007).

Due to increasing competitive pressure and growing production scale, the food production within the foodservice sector, is becoming more complex, technical and have reach an industrial level (DiPietro, 2017; Rodgers, 2009). Also, consumer tastes and food trends are in constant change, increasing the need to innovate (DiPietro, 2017; Forsman, 2011; Ottenbacher & Harrington, 2009). Innovation can help foodservice firms to keep their product portfolio competitive, achieve competitive advantage, thrive and grow. Thus, innovation have turned into a mandatory management task rather than a strategic option (Ottenbacher & Harrington, 2009).

The food service sector is considered to be dominated by marketing innovations, while technologically sophisticated approaches are scarce (Rodgers, 2007). Foodservice firms can source technologies and knowledge from other sectors in order to increase their innovation capacity and improve the overall operation (Forsman, 2011). For instance, innovations in equipment, food, packaging and service technology have the potential to enhance the performance and efficiency of operations, as well as improve the quality and safety (DiPietro, 2017; Rodgers, 2007). Furthermore, technological innovation in facilities and the usage of food science principles in the food preparation, have the potential to increase competitiveness in terms of cost leadership and differentiation (Rodgers, 2007, 2008). Overall, the usage of more high technology solutions and cutting-edge technologies can enhance the development of new products and services (Ottenbacher & Harrington, 2009), as well it offers significant improvements in productivity and profitability of food production (Rodgers, 2009).

2.4 Open innovation in foodservice

Open innovation activities are significantly and positively related to innovation performance in terms of innovativeness, new product/service success, customer performance, and financial performance, and offer an overall improvement in effectiveness (Huizingh, 2011). Selected information sourcing and co-

operation practices followed by an assimilation process, provide firms with a competitive advantage. For instance, by bringing offers to the market before their competitors (Forsman, 2011).

Mention (2011) explore the influence of different sources of knowledge and cooperation on the introduction of new to market innovations in service firms. The study indicated that market-based co-operation has neither a positive nor a significant influence on innovation. However, information from customers and suppliers stimulates the innovation since the data regarding end-users' or consumers' needs and requirements is extremely important for the innovation process. Firms relying on information from competitors do not seem to reach a higher level of innovation, since they opt for an imitation strategy instead of engaging in a more complex process that lead to the introduction of new to the market innovations. Moreover, cooperating with science partners seems to be benefit the development of new to the market innovations. On the other hand, knowledge sourcing from the science do not to lead to a higher degree of innovation. This issue may be related to specific capabilities of the service firm, like the lack of resources, competencies and abilities to absorb and exploit the knowledge obtained by the science base.

Regarding food service firms, due to a lack of scientific expertise and R&D capacities (Rodgers, 2007) they tend to source information like industrial techniques, ingredients and packaging principles from external partners, such as food manufacturing companies (Ottenbacher & Harrington, 2009). Furthermore, food service firms often cooperate with suppliers in order to adopt their innovations, while they rely less in information obtained from scientific sources, like universities or research centers (Mention, 2011; Rodgers, 2007). Recently, a higher level of consumer participation has been observed, since it can help to improve the overall service experience (Rodgers, 2007). For instance, Ottenbacher & Harrington (2009) stated that information coming from the consumer can help improve the development of new food concepts and potentiate the overall food innovation process in restaurants.

Despite the potential benefits from knowledge sourcing and cooperation with different partners, it is very unlikely that these types of activities will lead to the same results for all firms (Keupp & Gassmann, 2009; Ottenbacher & Harrington, 2009; Sisodiya et al., 2013). Therefore, further exploration on the factors influencing the gains is needed (Sisodiya et al., 2013), such as the firm's configuration; in terms of competencies, skills, internal processes and organizational structures, in order to understand the ability to absorb and assimilate the acquired knowledge for their own benefit.

2.5 Research gaps

Innovation in the service domain is focused on the development of new or improved intangible offerings (Ottenbacher & Harrington, 2009), characterized by a higher involvement of the customer (Mention, 2011), low R&D investments (Forsman, 2011) and non-technological approaches (Hollenstein, 2003), and depends mainly on firm's capabilities, resources and external input (Forsman, 2011; Hollenstein, 2003).

Literature notes the advantages that innovation can bring to service firms, such as the creation of new markets (Forsman, 2011), increase the efficiency, boost the service developments, develop marketing and specialization strategies (West & Anthony, 1990). However, little attention has been given to service innovation (Janeiro et al., 2013; Mention, 2011; Mina et al., 2014; Ottenbacher & Harrington, 2009) although it represent a high growing (Hollenstein, 2003) and dynamic sector (DiPietro, 2017) with a crucial role in the economy (Janeiro et al., 2013; Mention, 2011). Researches have not fully investigated service innovation, they have only focus on comparing innovation in the service with the manufacturing sector and have even been considered as equal (Forsman, 2011; Hollenstein, 2003; Mina et al., 2014).

Concerning foodservice innovation, studies have identified that food service firms innovate in order to deal with a higher competitive pressure and industrialization of food production (DiPietro, 2017; Rodgers, 2009) as well changing consumer tastes and emerging food trends (DiPietro, 2017; Forsman, 2011; Ottenbacher & Harrington, 2009). Through innovation foodservice firms can gain competitive advantage, keep competitive, prosper and grow (Ottenbacher & Harrington, 2009).

The reasons that lead food service companies to pursuit an OI approach, are not yet completely clear. Some studies indicate that OI for food service firms is seen as an option to counteract the lack of expertise, or complement the technical knowledge and scientific ''know-how'', also is seen as a way to improve the overall operation (DiPietro, 2017; Ottenbacher & Harrington, 2009; Rodgers, 2008).

Studies have presented the possible gains and competitive benefits that service firms can obtain when they collaborate and obtained knowledge from different sources (Forsman, 2011; Huizingh, 2011). For instance, leaning on other technologies, information and skills can increase the number of new to market innovations (Mention, 2011), improve the whole service experience (Rodgers, 2007) or enhance the overall performance, efficiency and productivity (DiPietro, 2017; Rodgers, 2007, 2009). However, the benefits or gains that can be obtained from Open Innovation activities seem to be dependent on firm's characteristics (Cheng & Shiu, 2015; Mention, 2011; Sisodiya et al., 2013; Spithoven et al., 2011) that have not yet been completely identified. Additionally, firm's configurational aspects have been recognized

(Mention, 2011; Rodgers, 2007), but still unidentified, as a factor that influence the assimilation, absorption and exploitation of the acquired knowledge.

Therefore, this research expects to provide a theoretical model to guide on the adoption of innovation strategies, in specific open innovation, in the foodservice sector. It is intended to fill the theoretical gap by investigating the following questions: (1) What are the firm specific aspects or attributes that lead to engage with an OI approach in a foodservice context? (2) How organizational characteristics, of a food service firm, could impact the engagement and the gains or benefits of Open Innovation?

This study contributes to the literature by analyzing capabilities and configurations that have certain influence on the adoption and gains of open innovation, which prior studies have not identified. The case analysis brings together the analysis of organizational configurations and firm´s capabilities. Basing on previous research, it considered open innovation as a source of competitive advantage and is seen as a means to evolve and adjust to market requirements by improving the offered services and products. It is suggested that there are factors and organizational settings that can increase or diminish the potential of open innovation as a source of competitive advantage. It is presented a perspective of the possible organizational hurdles or enhancer of OI.

3 Methodology

3.1 Research Design

To answer the research questions, the study uses an inductive approach, by identifying and analyzing the possible factors influencing the gains from OI of a single sample (Dutch food service firm). In an inductive approach, a number of concepts that relate different perspectives of a phenomenon are identified; then possible patterns of these concepts are defined and later analyzed, resulting in the generations of propositions or theoretical statements (Sabherwal & King, 1991). The research design is a single case study that allows the exploration and empirical description of a significant phenomenon under certain circumstances, besides it is the basis to develop theory inductively (Eisenhardt & Graebner, 2007).

The research setting is a food service and catering firm based in The Netherlands, an interesting one because of their constant interaction with student communities or association, research centers and school contractors, which allows the identification and characterization of possible implications that could arise with the adoption of an open innovation approach. The firm has had some experiences with collaboration and integration of consumers and partners into the innovations, which can mean that the company is to a certain point practicing open innovation but not fully engaged and aligned to obtain all the benefits from it. The study relies on qualitative data, which is conducted when investigating and

exploring a complex phenomenon that is difficult to measure quantitatively. Moreover, qualitative research has progressed in the management field and seems to be appropriate for research in the service sector, more specifically it helps to study strategic management matters in food service firms (Arendt et al., 2012). The data sources include 18 interviews with executives and employees that have frequent interaction with the firm's external environment and that are highly related to the new product or service developments. Each interview had a duration between 45 until 60 minutes and were conducted in person either at one of the company's location or at Wageningen University. Moreover, Interviews as the primary data source, are a highly efficient way to gather rich empirical data, especially when the phenomenon of interest is highly episodic and infrequent (Eisenhardt & Graebner, 2007). Moreover, interviews have helped to understand behaviors and motivations, as well barriers and perceptions in the foodservice operations (Arendt et al., 2012). Overall, qualitative methods are important in the context of theory construction (Timmermans & Tavory, 2012), additionally building theory from a case study is likely to produce an accurate, interesting and testable theory (Eisenhardt & Graebner, 2007).

3.2 Data collection and Research methods

This study conducts a comparative case study and it uses and inductive theory building approach (Edmondson & McManus, 2007). The research strategy stresses the validity and reliability of the design by conducting a replication logic and cross case analysis (Eisenhardt, 1989) comparing business units within the company to find contrasting perceptions and practices related to open innovation and possible hurdles, by this approach it was possible to identify unit-specific characteristics and obtain common indicators that ultimately resulted in emerging concepts. By comparing the collected data and iterate between literature, it was possible to develop propositions on open innovation as a source of competitive advantage. Also, it is possible to identify emerging concepts or perceptions, and later analyze them to generate a series of propositions or theoretical statements (Sabherwal & King, 1991). The research is based on qualitative data coming from two business units; school catering and events/banqueting, within one food service firm. Data collection consisted of a series of interviews on-site and at Wageningen University campus over the first weeks of December 2017. The analysis of the qualitative data is supported by literature to establish a relationship between concepts found in the literature and open innovation practices in food service. Figure 1 gives the overview of the research methodology.
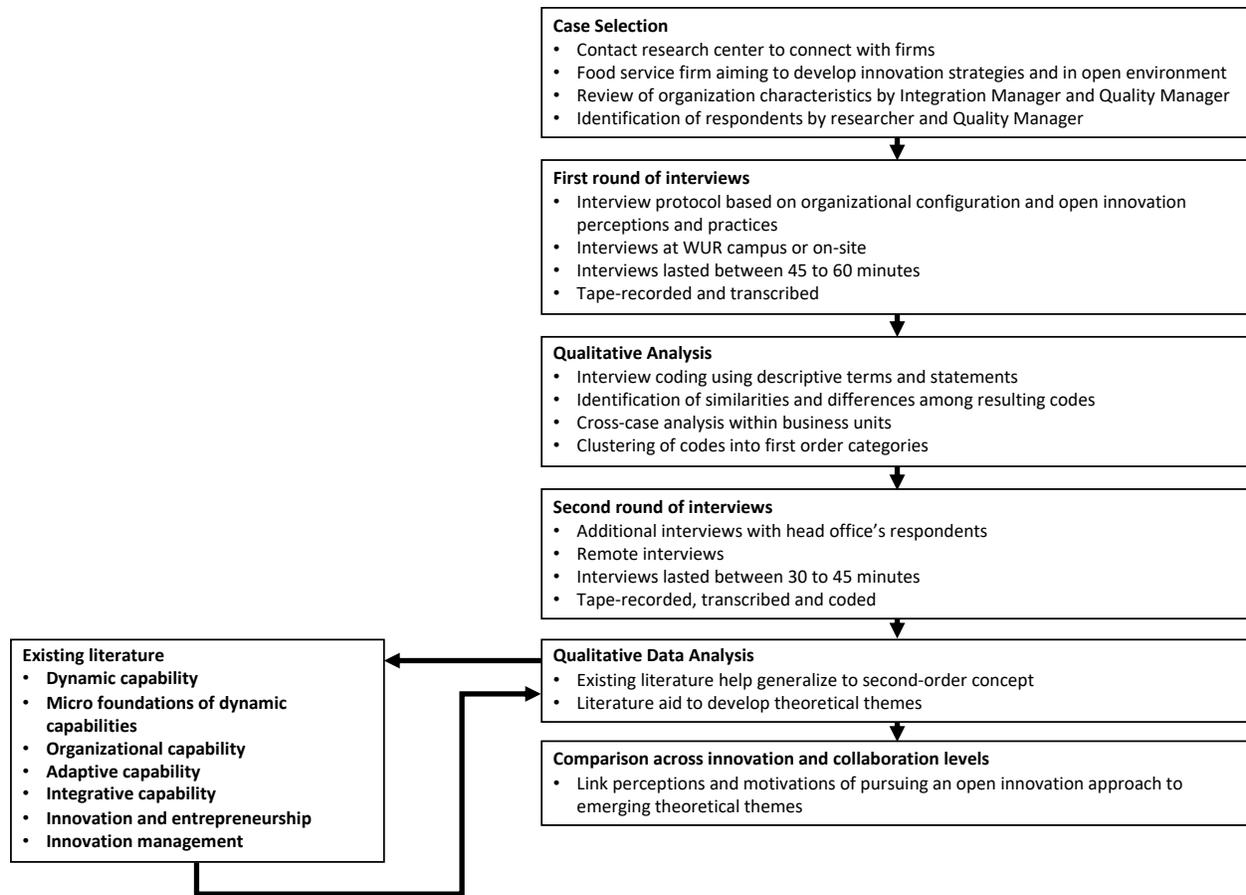
Case Selection
- Contact research center to connect with firms
- Food service firm aiming to develop innovation strategies and in open environment
- Review of organization characteristics by Integration Manager and Quality Manager
- Identification of respondents by researcher and Quality Manager

First round of interviews
- Interview protocol based on organizational configuration and open innovation perceptions and practices
- Interviews at WUR campus or on-site
- Interviews lasted between 45 to 60 minutes
- Tape-recorded and transcribed

Qualitative Analysis
- Interview coding using descriptive terms and statements
- Identification of similarities and differences among resulting codes
- Cross-case analysis within business units
- Clustering of codes into first order categories

Second round of interviews
- Additional interviews with head office's respondents
- Remote interviews
- Interviews lasted between 30 to 45 minutes
- Tape-recorded, transcribed and coded

Existing literature
- **Dynamic capability**
- **Micro foundations of dynamic capabilities**
- **Organizational capability**
- **Adaptive capability**
- **Integrative capability**
- **Innovation and entrepreneurship**
- **Innovation management**

Qualitative Data Analysis
- Existing literature help generalize to second-order concept
- Literature aid to develop theoretical themes

Comparison across innovation and collaboration levels
- Link perceptions and motivations of pursuing an open innovation approach to emerging theoretical themes

Figure 1 Overview of research methodology

3.3 Case Selection

A research center was contacted to have access to firms with novel innovation practices. One Dutch-Italian was aiming to develop proper innovation strategies for the improvement of back-end of their services. It is an interesting one, since its working environment can be convenient for the development of open innovation practices. The firm is well-known across the catering industry within the Netherlands. It has been operating mainly in schools for more than 20 years, providing food and drinks. One of the main business is the campus catering, having more than one hundred locations across the country. The company has developed, along with students and partners, specific concepts or formulas to target specific consumer groups in their locations, is also committed to develop healthier options and more sustainable offers. A few years back the company acquire a younger firm specialized in events and banqueting, aiming to deliver more customized offers for schools. Recently the company was taken over by an international catering corporation. Resulting in a new organizational structure and a new set of goals, aiming to expand the business and targeting new markets such as healthy canteens and corporate catering. The two

business units identified and considered for this study are School Catering (SC) and Events/Banqueting-Corporate catering (EBC). SC provides catering facilities at educational institutions in more than one hundred locations throughout the Netherlands. This unit follow mainly the tender procedures and base the offerings mainly on school regulations and requirements. Even though this unit is said to have extensive flexibility and knowledge to adjust to customer requirements aiming to extend contract with the current ones. Their main goal is to establish a partnership with the educational institution and the student community to offer healthier and more sustainable options for students. The unit has developed five unique concepts or so-called formulas for the locations, in order to offer a suitable assortment for a specific target group. Each concept offering a particular atmosphere and ambient that is in line with the food and drinks offered. Meanwhile, the EBC unit is defined as a full-service customized catering, offering more than food and drink by providing an overall experience and hospitality. The range of activities goes from catering events in the educational world, parties or dinners, and even provide food and drinks for thousands of visitors at festivals. The mission of this unit is to fulfill the client's wishes, translating an idea into a whole unique event with the highest level of quality and offering a total meal experience. Entrepreneurial spirit and creativity are essential to deliver the optimal hospitality at events with decorations and activities, along with food and drinks. A high level Senior Manager (Integration manager) along with the Quality Manager were asked to identify several respondents in each business unit, related to new product development or innovation processes and with different functions such as general management, operations, sales and head of department review the main business units within the company and the innovation level. It was stressed that the focal point of this study is open innovation as a tool for improving the services. Table 1 review the business units' profiles.

Table 1 Business units' summary

Firm	Dutch food service company		
Business unit	School catering (SC)	Events/banqueting - business catering (EBC)	Service Office (SO)
Primary Customers	Educational institutions	Festivals, educational institutions, and corporations	Internal departments
Main Activities	School's canteen, café and restaurant.	Festivals, indoor and outdoor events, dinners, company or staff parties.	Support locations and regional offices
Number of informants	7	6	5

In order to complement the analysis and to have a holistic view of the company, this study also includes the perceptions and opinions of managers and directors from the management team located in the service (head) office. These respondents' decisions and perceptions influence the development of new products and the also act as a support agency for both business units. The service office's main activities include the coordination of locations, management of selling system, planning and deciding strategically resolutions and overall the administrative functions.

3.4 Interviews

An interview protocol was designed based on organizational configuration literature and open innovation perceptions. The protocol consisted of a series of open-ended questions about the experience and background, institutional perspectives; such as strategy, organization's structure, decision making process. Followed by questions focusing on the involvement in innovation or new product development process within the business unit and concluding with the informant's perception or motivation to collaborate with external partners and source knowledge and skills (Appendix). Throughout the interview, informants were encouraged to discuss additional perceptions or company's characteristics that might affect the pursuit of an open innovation approach, or any other relevant remark for this study. Eighteen (18) semi-structured interviews; face-to-face or by phone, included 7 respondents (3 Formula Manager, 2 Regional Manager and 1 Site Manager) from the SC unit, 6 respondents (2 Director of operations, Sales Manager, and 2 Operation Manager) from the EBC business unit and 5 respondents (2 Facility employees, 1 Formula Manager and 2 Senior Managers) from the service office (SO). The interviews lasted between 45 to 60 minutes, were tape-recorded, transcribed and gather for qualitative data analysis. During the on-site visits, observations and insights were recorded and use to complement the transcribed interviews to have a deeper understanding on the emerging findings. Table 2 shows the interviewees' roles and their distribution across the two business units and the headquarters.

Table 2 Interviewees' role and distribution across business units

Business Unit	Interviewee	Main Activities (as described by the respondent)	Time in the company (up to Dec 2017)
School catering (SC)	Head of Formula	Development of food and drinks, implementation of formulas/brands in locations.	4 years
	Formula Manager	Responsible the operations of one location and staff.	10 years

	Formula Manager	Support and control 12 locations, help and supervision of location managers.	5 months
	Formula Manager	Responsible for 4 locations, develop improvement plans, help and supervision of location managers.	5 years
	Startup Manager	Responsible for 6 locations, support and monitor location managers.	4 years
	Startup Manager	Support and administration of locations, training of location managers and monitor staff.	5 years
	Site Manager	Administration of 5 locations, manage staff, intermediate between university and company, improvement plans.	4 years
Events/banqueting-business catering (EBC)	Operation Director	Supervision of district managers, monitor revenues, projects management, monitor contracts	10 years
	Head of Events and Banqueting	Responsible for operations and sales of the events unit, responsible for the production kitchen, festivals and events management.	8 months
	Operations Manager	Management and planning of events, organization of staff and material, monitor budget and revenues, responsible for hospitality and banqueting of the events	3 years
	Operations Manager: corporate catering	Responsible for corporate contracts, development of plans for corporate catering, staff management, customer support	5 months
	Sales Manager: school banqueting	Event organization and planning, preparation of sales offers, customer support.	2 years
	Operations Manager: school banqueting	Coordination of events, management of personal and materials, logistic of events.	8 months
Service Office (SO)	Integration Manager	Organize, coordinate and manage the organization.	4 months

	Sales Director	Sales and marketing for the locations and assortment. Consumer insights	1 year
	Application Manager	Responsible for the selling and supplies platform, programming of cash points and tracking of revenues and sales.	9 years
	Facility manager	Responsible for store design and the concept development in the stores. Maintenance of equipment (around 150 stores), insurance, car plan, lease contract, buildings rent contracts, constructions, etc.	4 years
	Facility Employee	Responsible for the development and operational part of the locations, including materials, equipment and construction.	3 years

3.5 Qualitative data analysis

The qualitative analysis consisted in individual analysis of interviews followed by a cross-case analysis, which help looking at the data in divergent ways and identify within units similarities coupled with inter-unit differences (Eisenhardt, 1989). The data analysis started by coding individual interview transcripts using the computer-based qualitative software program MAXQDA Analytics Pro 12. In the initial coding effort, each interview was coded descriptively based on phrases, terms or statements provided by the respondents. Each code was created based on the respondent's perceptions or motivations, attempting to retain the authentic idea expressed. As the coding progressed around 400 codes were obtained. After going through multiple interviews similarities and differences among the many codes across respondents were recognized. Resulting in the clustering of the codes into first-order categories (16). Each category was labeled with a phrasal descriptor using expressions that retain the respondent's remarks and contain statements made by the respondents. The coding of the remaining interviews continued until no different or new concepts were found.

3.6 Additional interviews and data analysis

After finalizing the coding and categorization of the first set of interviews, differences and discrepancies between the two business units were identified. Contrasting perceptions and motivations to collaborate with external partners and to pursue an OI approach were recognized. In order to complement the perspective and vision of the firm, a second round of interviews with more respondents from the events/banqueting unit was carried out. Resulting in a more even number of interviewees from both units,

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suitable for a more proper comparison. The additional interviews were conducted by phone and were focused on capture additional data from the events/banqueting unit that would help confirm or outline the beliefs and attitudes found on the first interviews and coded into the first-order categories. These interviews also provided information about the performance of the company, more detailed differences across business units and some historical data. The second round of interviews was added to the initial round and resulted in a total of 18 interviews. The additional interviews were tape-recorded, transcribed and later coded. The resulting codes were then assorted into the first-order categories that have been previously developed. Relevant literature was integrated at this phase to provide useful conceptual definition that aid to unify the first-order categories into six second-order concepts. This reiteration process between emerging concepts and existing literature resulted in the theoretical themes. Figure 2 shows the full data structure and the resulting categories, concepts and theoretical themes.
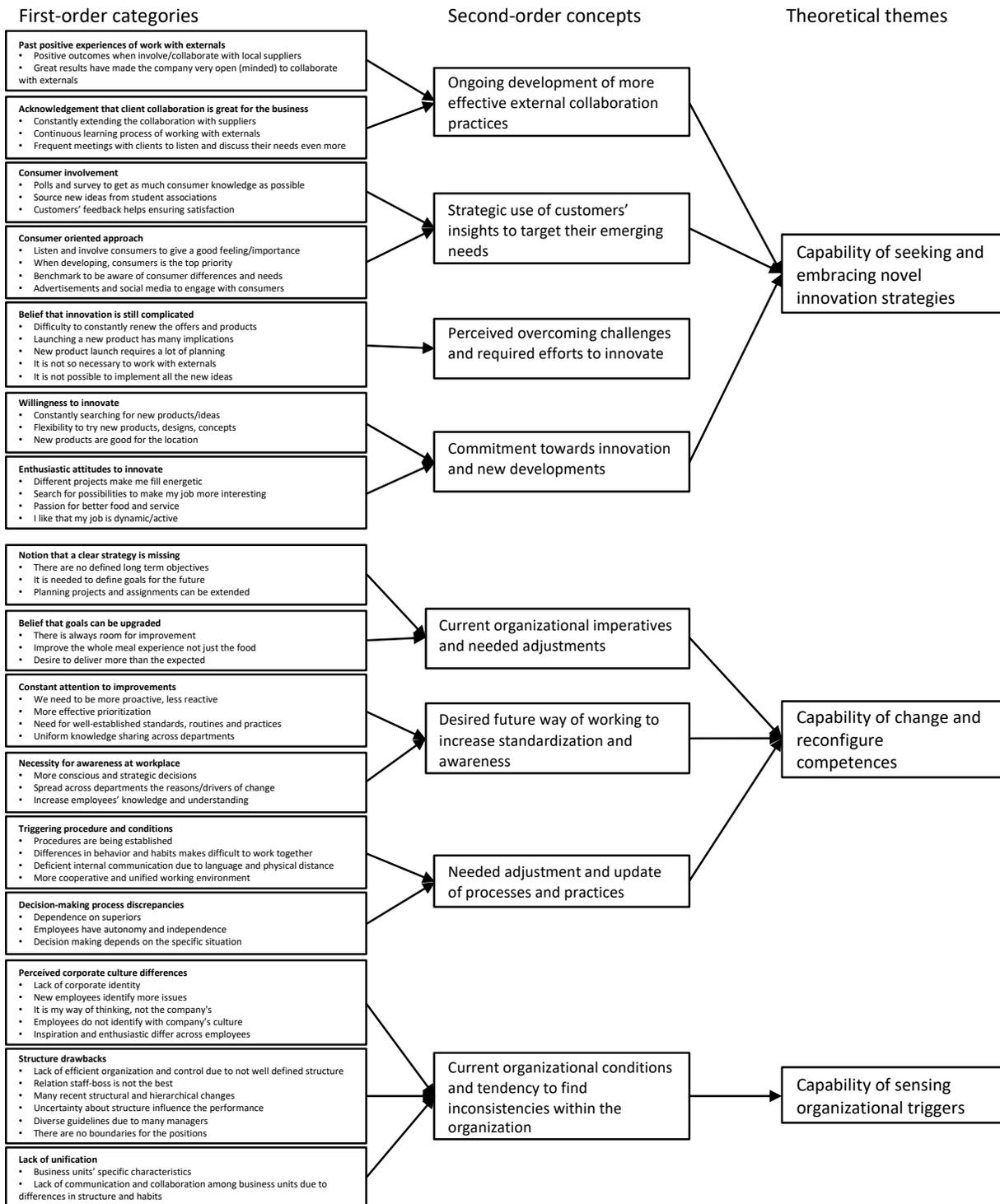
First-order categories

Past positive experiences of work with externals
- Positive outcomes when involve/collaborate with local suppliers
- Great results have made the company very open (minded) to collaborate with externals

Acknowledgement that client collaboration is great for the business
- Constantly extending the collaboration with suppliers
- Continuous learning process of working with externals
- Frequent meetings with clients to listen and discuss their needs even more

Consumer involvement
- Polls and survey to get as much consumer knowledge as possible
- Source new ideas from student associations
- Customers' feedback helps ensuring satisfaction

Consumer oriented approach
- Listen and involve consumers to give a good feeling/importance
- When developing, consumers is the top priority
- Benchmark to be aware of consumer differences and needs
- Advertisements and social media to engage with consumers

Belief that innovation is still complicated
- Difficulty to constantly renew the offers and products
- Launching a new product has many implications
- New product launch requires a lot of planning
- It is not so necessary to work with externals
- It is not possible to implement all the new ideas

Willingness to innovate
- Constantly searching for new products/ideas
- Flexibility to try new products, designs, concepts
- New products are good for the location

Enthusiastic attitudes to innovate
- Different projects make me fill energetic
- Search for possibilities to make my job more interesting
- Passion for better food and service
- I like that my job is dynamic/active

Notion that a clear strategy is missing
- There are no defined long term objectives
- It is needed to define goals for the future
- Planning projects and assignments can be extended

Belief that goals can be upgraded
- There is always room for improvement
- Improve the whole meal experience not just the food
- Desire to deliver more than the expected

Constant attention to improvements
- We need to be more proactive, less reactive
- More effective prioritization
- Need for well-established standards, routines and practices
- Uniform knowledge sharing across departments

Necessity for awareness at workplace
- More conscious and strategic decisions
- Spread across departments the reasons/drivers of change
- Increase employees' knowledge and understanding

Triggering procedure and conditions
- Procedures are being established
- Differences in behavior and habits makes difficult to work together
- Deficient internal communication due to language and physical distance
- More cooperative and unified working environment

Decision-making process discrepancies
- Dependence on superiors
- Employees have autonomy and independence
- Decision making depends on the specific situation

Perceived corporate culture differences
- Lack of corporate identity
- New employees identify more issues
- It is my way of thinking, not the company's
- Employees do not identify with company's culture
- Inspiration and enthusiastic differ across employees

Structure drawbacks
- Lack of efficient organization and control due to not well defined structure
- Relation staff-boss is not the best
- Many recent structural and hierarchical changes
- Uncertainty about structure influence the performance
- Diverse guidelines due to many managers
- There are no boundaries for the positions

Lack of unification
- Business units' specific characteristics
- Lack of communication and collaboration among business units due to differences in structure and habits

Second-order concepts

- Ongoing development of more effective external collaboration practices
- Strategic use of customers' insights to target their emerging needs
- Perceived overcoming challenges and required efforts to innovate
- Commitment towards innovation and new developments
- Current organizational imperatives and needed adjustments
- Desired future way of working to increase standardization and awareness
- Needed adjustment and update of processes and practices
- Current organizational conditions and tendency to find inconsistencies within the organization

Theoretical themes

- Capability of seeking and embracing novel innovation strategies
- Capability of change and reconfigure competences
- Capability of sensing organizational triggers

Figure 2 Data structure

4 Findings

The theoretical model that arise from the interviews' analysis is shown in Figure 3. According to it, pursuing an open innovation approach in a foodservice firm is regulated by a high degree of external collaboration and knowledge/expertise sourcing and high tendency for internal improvement and development of knowledge/expertise. The studied business units have developed several open innovation practices to a certain extend like customer engagement, co-creation with clients, knowledge sourcing from universities. Both business units have had previous interaction and collaboration with external partners before participating in this study. However, three capabilities define the frequency and the willingness to collaborate and to pursuit an open innovation approach, namely: seek and embrace novel innovation strategies, changing and reconfiguring competences, sensing organizational triggers.
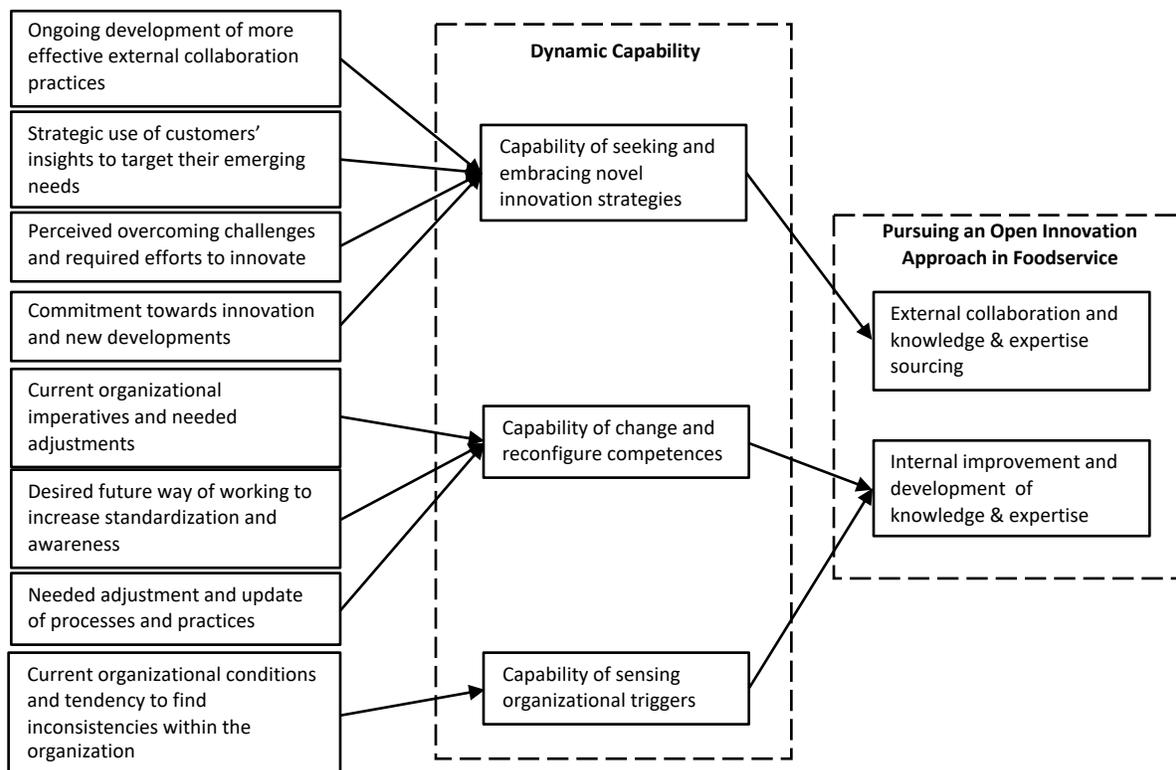
Figure 3 Theoretical model

Propositions were developed based on these emerging capabilities to better understand the influence of organizational settings in the development of an openness continuum and to explain how they promote or influence the willingness to go for OI approach.

4.1 Pursue and embrace novel innovation strategies

Both business units in the study declare a current concert about looking for ways to collaborate and involve customers to enhance the innovation and improve the offerings. Comparing the business units, one undergoes a higher level of collaboration with external and higher customer involvement (EBC) while the other one had difficulties and achieve a lower level (SC). The higher-level unit promote among members the gains that can be obtained through partnerships and customer opinions and feedback. Particularly, it was noticeable the frequency of these practices and the past positives outcomes that were obtained, taking them as motivation to continue collaborating and involving partners to remain competitive. They reflect on their current activities an enthusiasm to try new things, to be up to date and to develop more customized offerings based on innovations and customers. Also, their current practices and activities arise questions such as: how can we be more flexible? How to enhance the local presence? How externals can help me satisfy my clients? Are we really paying attention to customers' needs? Are we thinking more in customer satisfaction than in money? In a certain way, high interactional and collaborative unit uses the knowledge from customers or suppliers, obtained through partnerships or close collaboration, to develop new and more tailored offerings and try to establish these practices as a guideline for their business activities. These insights allow the detection of a so-called *capability of seek and embrace novel innovation strategies*. Following a more detailed and deeper analysis of the knowledge enabled innovation in both units is presented.

4.1.1 Ongoing development of more effective external collaboration practices

By collaborating and interacting with external partners such as local suppliers, universities and even small stores/ players is considered by the respondents as an aid to achieve the whole customer satisfaction by increasing the number and the innovativeness of the offerings regarding food items as well as service elements. It was constantly highlighted by the members of the EBC, the importance of having flexibility while collaborating with external partners. As noted by the Sales Manager of events and banqueting:

"I am their customer and they need to make me happy and I need to make my customer happy. So, it's like a circle and we work together. I like the flexible type more than the standard, where they say no"

The knowledge and expertise obtained, and the awareness resulted from the collaboration and constant communication with externals has brought positive results for the unit in the past, giving a precedent to consider these practices as positive for the development of projects and innovation within the unit, as expressed by the Operation Manager:

"You need to have the knowledge on everything, not all the knowledge. But when you have the knowledge of everything a little bit, you can work easily together with people who have that [expertise]."

Overall the EBC units, can be considered as having a high interactivity with external partners aimed to improve the developments and support their activities. Always minding the goal of satisfying consumers' needs and also offering something extra to keep them aware of the innovative possibilities that the company can attempt.

On the other hand, the SC unit have a contrasting reality regarding the collaboration with external players and the source of expert skills. As expressed by the Head of Formula team when asked about if any of the activities or the people that he manage involve working with external people:

"No, for me no. Everything is done within. Until now."

A similar remark was also expressed by one of the cluster managers, when asked about the approach that is given to work with individuals that are located outside the boundaries of the company:

"When we have a big banqueting or party and we need a lot of food, I go to our sister company who is also a company part of this company. Some of my colleagues may go to another caterer. But for very small things, our company have everything in house via the sister company and bakery."

Despite the low level of knowledge and expertise sourcing distinguished in the SC unit, there is a willingness to develop more collaboration with suppliers and to learn to work in an integrated way with external. However, there are still some limitations that restrict the innovation based on sourcing knowledge as stated by the head of formula:

"There is not [real collaboration], for now. I think we are too small for that. Because is a procedure, it cost a lot of money when you ask that to a supplier. And because the volume of the product that they develop for you is too small it will cost more. I think in the long term when we become a bigger company, international, you have more foundation to ask for that specific thing. Now we depend more on our creativity to develop or to make something with it."

Generally, the SC business unit has not experienced the same level of interaction with external players that can enable innovative products or offerings as much as the EBC unit. Nonetheless, according to the respondents, there is an eagerness to integrate and collaborate more with suppliers or students.

4.1.2 Use of customer's insights and targeting emerging needs

For both units, the client (e.g., educational institutions, research centers or corporations) as well as consumers receive a very significant importance when it comes to the business activities. Consumer and clients' opinions are recognized as one of the main drives that lead to the development or the improvement of the services. The knowledge and opinions from the consumers, sourced on-site, give the

company the opportunity to monitor the market and to be aware of their needs and wants. Some managers use the following statements to communicate the importance of clients and customers: *"I see and I hear everything", "students give feedback and [that] is the nicest thing that you can work with", "we must have the skills to be aware of what is happening at the locations", "[Managers] are the direct contact (with consumer) and they know what they like. If they like pasta, then sell pasta".*

For the EBC unit, the level of collaboration with clients is higher than the other unit. The nature of the activities and events demand to work closely with the customer to ensure their satisfaction and deliver precisely what is asked for. As noted by the Operation Manager for corporate catering, a partnership with the clients can lead to better results and a long-lasting relation with them:

"For me it's more about getting more personal. Because if they like me, it's much better for me. Then you have a totally different talk and then you focus more on a partnership and that's what I would like to eventually get. And if you ask one of the contractors: what would you like? They will say: I would like to have a partnership, you should take us with you, give us the experience, and tell us where we can go, what are the options?"

Overall, the respondents from the EBC highlighted the consumer satisfaction as one of the main goals and they also indicate their willingness to spend time and effort in building a long-lasting relationship with clients. A partnership with clients, would represent for the unit a more complete offering by aligning with the client requirements and offer something more than the expected in order to keep them pleased. Regarding the SC unit, the interviewees exposed a high level of customer involvement and indicated that through this practice they were able to develop new products and to improve the existing services. A formula manager highlighted the crucial role that students have at some of the location and how they determine the new products or new assortment:

"In some locations we work a lot with students and student communities. They talk a lot with everyone, they gave us the result and then the company has to do something with it. So, we have to also listen very well. For example, you walk here with a paper and ask: what do you think of the products? Do you want healthier? More vegans? More vegetarian? And at the end the result was to have more vegetarian and more vegan. And then we sell more vegan and more vegetarian."

The constant involvement of students at the locations in educational institutions have even result in the creation of joint projects. These projects are seen as beneficial for the company's reputation and image as well as for the relationship with the client. The head of formula shared an experience of working together with students to develop a collaborative product:

"You make them (students) part of your way of thinking. I got from them a project with hemp and I develop a powder, a bread and a pesto. I got from them the product and they ask me if I could help

them. Then I make them part of the project, I showed them how is done and give them a sample of the bread. That is what I did. It was a project developed with them, and then we ask for the packaging and then they say they can do 3D printing and we did it with recycled plastic out of the school. And that's how we started together, I developed the food and they gave me the samples of packaging. From there on, we test the products and ask the students to taste of the products."

Overall, both business units evidenced a high commitment towards customer involvement, high awareness of the benefits that can be obtained by this practice and previous positive experiences and outcomes, in terms of innovative offerings and fulfilled customer satisfaction.

4.1.3 Commitment to innovate

The entrepreneurial thinking and motivation or commitment to search for new innovative ideas is present in both business units. The necessity to develop new offerings, the willingness to innovate and the work conditions that motivate the development of new services and products, were highlighted by several respondents. The Site Manager from the SC unit mentioned that it is essential for the company to be innovative and to take advantage of the favorable circumstances that the market offers:

"You have to take the opportunity. Because people are actually giving it on the plate sometimes to you saying that this is what we want, and we should try to do something with it."

"We always keep our minds open. My door is always open for good innovating ideas"

It was also expressed by other respondent the disposition to search for new ideas in diverse sources and try those in their workplace. Also, it was mentioned by several respondents, that the search of new products is an aspect that is constantly in their minds not only during work hours but also takes place at other times.

"We search for new ideas, new layouts, new things that could work my locations. I have to see what is good for a type of school because each one is different. My boss is always going to locations and see what he can change. Also, the head of the team is going everywhere through the whole country to look for new things" (Cluster Manager)

"We can go to the city and look what's happening now. In the market, on the street. For example, if you see a good idea, a nice roll, a nice salad." (Formula Manager)

"I travel a lot with my wife, and I see a lot in other countries and what they are doing. Try to bring you things from other countries here, for example we have the chai latte and actually that was an idea from my last holiday. It was in Malaysia" (Site Manager)

The majority of the respondents consider the new developments and the new ways of serving as positive for the company's performance. For instance, one of the Formula Managers noted that there is always

room for improvement while the Head of Formula denotes the prestige that the company can obtained through innovation:

"Look a little bit further to how can we improve, how can we do better, how can we do the assortment better, how can you show everything better."

"To be innovative. In the way of thinking, not only in the development of the items or recipes, but also improving the relation with the locals and do something special with products out of the area. Every time you have to be surprised, people say wow!"

However, in order to maintain a high level of innovation and especially a successful implementation phase, is necessary to consider all the implications of developing a new product. And once it is launches, it is crucial to monitor and report the outcomes of newly implemented ideas. The implementation of new sourced ideas is contrasting between the two units. The SC unit revealed a higher willingness and commitment to search for new ideas but a low level of implantation due to difficulties such as; time constrains, financial difficulties or contracted obligations.

In the other hand, the EBC unit revealed a higher level of implantation of new ideas. The Operations Manager for school banqueting mentioned that the process of introducing new products is not that complicated, while the Sales Manager for events denoted that new products represent a big opportunity to ensure the customer satisfaction and are beneficial for the company's reputation.

"Is easier for me to say: I found it, I will get it and I will use it for my event. It's kind of simple for me to do that. Up to now it hasn't been much complicated" (Operations Manager for school banqueting)

"And I also love to work with them [local producers]. I know a little bakery in the city center in Amsterdam and they have really nice cakes and stuff, I love to work with that in an event.
We need to bring it together. If we are talking about sustainability but then I ate a candy bar at the break and I have the waste, which is not really smart. So, we can do it better and eat a beetroot muffin, we use from the beetroot that were thrown away yesterday. That is more focus on the theme.
Is definitely nicer to be in a conversation [with the client] and be enthusiastic about what you can do. That is much more than just the standard lunch for you, is this what you want? Ok."
(Sales Manager for events)

The previous knowledge and attitudes define the level of entrepreneurship, this statement is accurate for both business units. Most of the respondents indicate that the diversity of projects, the vast possibilities and the dynamism of the sector, make them feel energetic and enthusiastic to search and develop new and improved offerings for their clients and customers.

Table 3 presents a summary of the identified mechanism based on the respondents' opinions and testimonies regarding; the ongoing development of external collaboration practices, the constant

involvement of consumers in the innovation process and their commitment towards the development of new products or services. The following proposition is suggested:

Proposition 1: Business units with a strong capability of seeking and embracing novel innovation strategies (collaboration/co-creation and sourcing of ideas for the development of new products) are more likely to fully pursue an open innovation approach.

Table 3 Business units' comparison of mechanism for seeking and embracing novel innovation strategies

Business unit	Mechanism	Summary
School catering (SC)	Joint developments with students.	One-time development of a private label product: recipe developed by the head of formula and packaged in a recycled packaging made by students. Another occasion a student contacted the formula manager to introduce his own developed healthy snack.
	Local supplier inclusion	Products from local suppliers and producers have helped develop special to the market offers. For example, supplier that produce soup out of vegetables that are thrown again.
	Alliance with local producers	In some of the locations, the company have introduced special areas for local producers to offer authentic dishes like Indian or Thai
	Incorporate experts	The company is planning of bringing more chefs and cooks to the locations to elevate the quality of the offers.
	Polls by students	Sometimes, there are sampling in the location and students are asked to give feedback. For instance: what do you think of the products? Do you want healthier? More vegan? More vegetarian?
	Engagement through social media	To inform consumers the location often advertises and pay attention via Facebook or Instagram on the mobile phone because it is considered as an efficient way to reach the people.
	Students collaboration	Locations work with students and students' communities by contract. Students collect information, gave the result and then the company has to take actions.
	Pilot test	New product can be tested in a specific location and decide the success based on sales. Then try it in another location and see the outcomes. After the whole trial process, it is possible to establish the new product in all the locations.
	Sourcing ideas	It is common to observe and get new ideas, layout or products from trips to another country, social network, magazines, chef clubs or restaurants.
Events/banqueting-business catering (EBC)	Local heroes collaboration	Local bakeries, butcher or breweries have helped to meet the customer requirements for the events, such as vegan, halal or gluten free products.
	Working with entrepreneurs	By working with self-employed people, the company have direct contact with them and can decide what and how they want to be supplied.

Reduce third party dependence	By involving suppliers in early stages, its more efficient to work together and avoid mistakes prior the events.	
Hire complementary caterers	In bigger events the company is not able to offer the whole range of product, therefore is necessary to bring in other caterers to complement the event.	
Knowledge sourcing	By sourcing knowledge from other caterers, the company has been able to develop its own offers and become a complete event manager.	
Client alliance	Establish a close relation with clients, giving them more attention and time to discuss, propose together and even have taste sessions, to develop a unique and pleasing event.	
Dynamic offers	Willingness to make an event unique and different, by bringing new products, new cooking techniques or even themes like disco party, 80´s party, American theme party, etc. Endless possibilities in the organization of events.	

4.2 Changing and reconfiguring competences

As previously presented, the external interaction can be considered as a driver to pursue and open innovation approach for both units. However, according to the respondents' remarks there are several internal factors and issues which may also influence the decision to open the company's boundaries. Both business units that participate in this research reveal their concern for current capabilities and the need to change them in order to offer better services and mainly a better performance. For example, one manager from the SC unit expressed: ¨ [everything] is getting more in shape, is really getting. We need to push all the parts. And, we are not there yet but for now we are doing small moves to improve. Comparing both business units, one denotes a high willingness to change and work in a different manner (EBC) while the other one (SC) consider the organizational changes as optional and not completely essential for a better performance. The respondents from the higher-level unit denote a high concern of the current competences and try to figure a plan to promote change among members, also they are conscious of the gains that can be obtained through a defined strategy and by increasing the awareness of employees. Especially, it was noticeable that due to the recent takeover, the respondents seem to be motivated and optimistic to continue developing and improving the company's competences to remain competitive. The interviewees reflect on their opinions a desire to change the way of working, the need for a clear strategy and the need to increase the knowledge and understanding among employees. Also, their current practices and activities arise imperative needs such as: more planning and anticipation, defined strategies and objectives for the future, more proactivity, more awareness of actions and changes, among others. The high changing and reconfiguring unit make use of its necessities; such as the need to define goals, to have new work habits and to remain mindful of changes, to establish new practices and processes aimed

to improve or renovate the offerings and overall the company's performance. These notions allow the definition of a so-called *capability of change and reconfigure competences*. Following a more detailed and deeper view of the change and reconfiguration of both units' competences is presented.

4.2.1 Current organizational imperatives and needed adjustments

The respondents from both units had similar opinions regarding the company´s goals, procedures and the information and knowledge shared within the company. They define imperatives and highlighted the benefits that can be obtained if those need are met. The respondents from the EBC unit have a higher frequency of mentioning the things that they would like to change. For instance, they noted their current goals but also highlighted the necessity to define future objectives and how to achieve them. As mentioned by the Operation Manager of Corporate Catering:

"We know the profit now and we also know how much we want to be in 3 years, whic4h is coming. But the route it's not written yet"

It was also highlighted the willingness to change the well adopted practices, working behaviors and values. The impact of the recent company's takeover also plays an important role in the desire to change and the establishment of long term objectives. To exemplify this the Director stated:

"When I talk about 5-year plan, it is under construction because now we are 1 year that we are part of a very big company and we have to make a new vision and mission and these kinds of things"

The EBC was more looking forward to developing new competences, improving the exiting practices but above all willing to change the current working habits in order to improve the unit's innovations. A clear supporting statement made by the Operation Manager enclose the unit's ideals:

"I would love to sit and just surprise someone by telling something new. Tell them that we are working on this, the way we are looking at thing. Next year we will do this and this. Like a timeline that you can already tell people: we will get new machinery, new equipment, etc. Or maybe there is a new trend and perhaps we can introduce it into your company."

In the other hand, the SC unit revealed mainly an interest in continuing delivering a complete service experience and to keep working by the standards as much as possible. By doing these, the respondents from this unit expect remain competitive and ensure the customer and client's satisfaction.

"We create the brand books, and that is the story telling and mind set of what we sell, and how we want to sell it. So, it's not only the assortment, the way of presentation, preparation, and logistics, routine, everything has to be [included] in the brand book."

Overall, the EBC unit looks beyond the current practices, into new ones that can help to develop better products and more customized events. There is a higher willingness to change the existing practices, a more planned schedule and more defined long-term objectives. By achieving this, the respondents expect to offer more innovative products and services. Meanwhile the SC unit, is more focused in trying to establish standard guidelines that would help them ensure meal experience, not only based on food items, but also dependent on presentation and employee's actions.

4.2.2 Adjustment and update of processes and practices

Besides the organizational imperatives and the need for change, it was also exhibited by the respondents the existing differences in internal procedures and also inconsistencies in the decision-making processes. In both units, it was identified inconsistencies in the decision-making process and the role that superiors play during the decisions change depending on the situation. The SC unit display the higher number of decision-making dilemmas, it was also highlighted the influence of this decision in the introduction of new products or the implementation of new ideas. Where the level of innovativeness was not completely taken into account and the decision was taken mainly based in the managers or their superiors' personal belief. Some exemplifying statements from the SC are:

"I have to go to my boss and say: I have this new idea, Is it something? Is it nothing? (Formula manager) For me [there is] a lot of freedom to do the things in my way, with my own things." (Site manager)

"I have an idea, I put it out there and ask if we can try it. We order, try it and look what are going to do next." (Formula manager)

"For small things (decisions) is for me. For the things that I can solve in the moment, I can decide. But for bigger issues that is for my boss. I can propose, give options and is up to them to decide." (Cluster manager)

"When I find something, any idea, that [I say] maybe we can do this or implement this in the company. I have the decision to say I want to do it, let's do it." (Head of Formula)

While the SC unit mentioned more differences in decision processes than in procedures, the EBC unit express with higher frequency their concern towards difficulties at workplace that might be affecting the innovation process and the company's performance. For instance, it was highlighted a number of not well established or standardized procedures which are originated by a lack of internal communication, distance inconveniences and the overall working environment. As stated by the Director of operations, processes are not well defined and not recorded:

"There are a lot of processes that are new, and we have to find out a lot of things by ourselves. We have procedures written and not written, and everybody knows a lot about these."

Additional to the procedures and decision-making processes, the overall environment of the EBC unit has also a significant influence the development new ideas and new services, and the overall unit's innovation performance. As noted by the Operation Manager for corporate catering, there are several factors that are essential for the company's prosperity:

"It's about constantly making choices on that point. Would you like to have a great environment for our colleagues? Give them trust, give them a compliment when they do great, sharing thoughts, involving them in things that are going to happen? And I think that's new for the old organization."

As exposed in this section, current procedures and practices seem to affect the level of interaction with external partners; like clients or suppliers, and overall the level of innovation from both units. Based on the respondents' opinions and perceptions, the difficulties at workplace; not well-established procedures, differences in communication, the overall working environment and even the distance between the headquarters and the units, affect the unit performance and can be considered as a determinant factor in pursuing a higher level of innovation. Also, discrepancies in decision making process; which according to the respondents depend on the occasion, type of decision or the independence and autonomy that each manager has, seem to influence the development and implementation of new products and processes. Table 4 summarized the mechanism that employees employ to renew and reconfigure. Base on this, the following proposition is suggested:

Proposition 2: Business units with a strong capability of changing and reconfiguring competences (desire to change by renewing processes and practices) are more likely to improve internally and be in place to pursue an open innovation approach.

Table 4 Business units´ comparison of changing and reconfigure

Business unit	Mechanism	Summary
School catering (SC)	Increase awareness at all levels	By communicating, informing and discussing the company expect to increase the level of awareness among employees. It is important for the firm to have independent employees that could think about the actions and consequences, and ultimately avoid previous issues.
	Change into more proactive actions to improve the service	The firm is currently focused on troubleshooting and finding quick solutions to current organizational and operational issues. There is an overall desire to change this condition and become more proactive and ahead of any potential problem.
	Prioritize	Try to develop a system to focus in urgent and critical concerns. Through this, the firm is expecting to solve issues more efficiently, prevent possible ones and have time to think about new products.
	Standardize managers functions	Currently, managers have absolute independence to decide over their locations. This condition may be favorable sometimes, but overall represent a risk to lose control over the operation.
	Focus on deliver the optimal experience	Benchmarking, modifying portfolio and develop concepts for a specific location have helped the company to ensure customer satisfaction. The brand books, communication strategies and layouts are essential for the company to deliver more than the expected.
	Constant improvements	The firm is aware that there is always room for improvements, therefore it is constantly identifying limitations and risks, meeting challenges and experiencing a continuous learning process. By going through these, the firm is able to modify and adjust its practices and processes to continue serving the clients.
	Decision making process adjustments	Ongoing standardization of how the decisions are made. Currently there is high dependence on the boss or superiors, while there is also a lot of employee independence to introduce, implement or test novel ideas/products.
	Procedure´s improvement	Necessary to define and adjust every element to be in line with the brands and the mood that every location has. Going from the right manger or employees to the most adequate food and beverages assortment.
Events/banqueting- business catering (EBC)	More proactive and propose new alternatives	Currently, the unit is focusing on comply with the planned events. Sometimes is possible to offer different and unique options but is not something that is completely established as of now.
	Planning and anticipate more	In organization of events it is essential to have a plan and steps to follow. At the moment there is not a clear guideline for making an event. Short term strategies are developing and is expected to allow the unit to have improvement and growth plans.
	Focus on develop more tailored offers	The unit is currently changing to a more diverse and broad range of offering for events, moving away from the ¨standard¨ event. To achieve this the unit needs to define objectives and new ways of working to dedicate more time and effort to clients´ requirements.

Continual renovation of practices	Organizing events is seen as a good challenge because it involves learning, evolving, and getting better together with clients, it helps getting to know more partners, more companies that you can work with. More communication and more results in the work that you do together.	
Flexible authority	For some events is necessary to get the approval from the service office or superior managers, in terms of budget or time spent. For other occasion, employees are free to contact suppliers and get the products from them. There is not a clear control over action and for some employees they don't even have control.	
Collective challenges	Employees have to adapt and confront when working closely with other departments or units like invoicing, financial, sales, HR, every department within a company expect input from operations. And operation need input from them. Distance, environment and trust are other concerns that shape the way of working.	

4.3 Sensing organizational triggers

By realizing organizational drawbacks and internal controversies, the company can be able to identify and attempt to adjust in order to increase the overall performance. According to the respondents' comments there are several internal circumstances and issues which may have an effect on the company's performance and ultimately limit the interaction with outside partners. Both participating business units exposed the current organizational characteristics and express their concern regarding these conditions and the influence that they might have in their daily activities. For example, one manager expressed:

"I think the company has grown too fast without the right structure, the basic structure, and we have to change it. It cost a lot of time and I hope it will be better, it needs to be. We have to do it better, it's not in the right way. Because you have one unit, and you have the other one. You don't have to do everything every day, but you have to know [about it]. What schools [unit] do is very important, but also what events [unit] do is also important for the company to achieve the goal".

Comparing both business units, the EBC unit showed a high ability to detect and sense potential organizational issues and opportunities to overcome them, while the other unit (SC) did not consider the current organizational conditions as so unfavorable for the company's performance. The respondents from the higher-level unit were able to identify issues and inconsistencies in the structure and culture of the company and revealed a high concern about these and the way they influence on the daily activities. Also, they are conscious of the gains that can be obtained if these controversies are addressed. In particular, it was detected that due to the recent company's take over, there have been structural changes and corporate cultural adjustments. These alterations were noticed and constantly pointed out by the respondents, anyhow they seem to be motivated and optimistic to continue with this changing process which will eventually improve the company's competitiveness. The interviewees reflect on their opinions

a desire to change the way of relating among employees, contradictory personal beliefs and reveal structural deficiencies. Among their aspired adjustments are: a better relationship between employees and among business units, a defined brand identity and brand equity, and a more defined structure. Also, each respondent disclosed some cultural beliefs that were not similar among them. The business unit with the higher tendency to find organizational inconsistencies, make use of its necessities; such as the need to define a clear culture and values, to have a suitable structure and to have more integration of the business units, as an opportunity to change or improve the processes and consequently the overall company's performance. These perceptions allow the definition of a so-called *capability of sensing organizational triggers*. Following, is presented a more detailed and deeper view of the current organizational conditions and the inconsistencies mentioned by the respondents from both units.

4.3.1 Strong attention to detect organizational inconsistencies

It was frequently express by the respondent, from both units, their concert for finding and pointing out organizational inconsistencies and drawbacks that affect the performance of the company. Among the difficulties constantly distinguish by the respondents include structural issues, disparity in beliefs and values, and lack of integration among business units. There was a considerable difference in the number of inconsistencies identified by both units, being the EBC the one with the highest number. The EBC unit exhibited a high concert towards the lack of integration and collaboration among business units, due to the nature of each business. As the Sales Manager for events noted, there are noticeable differences in the activities that each unit execute and how this can affect the development of new products and processes.

"[Event] is always tailor made. And in the counter, you just have your daily offer and of course your daily offer can change, maybe today you have a snack, a croquet, and tomorrow you have cheese fingers and that's it. But an event is always unique. Is not really, standardization is not possible. Well sometimes. They (clients) expect the same school counter offer for an event because that's it! That is the company! And I am like: No! I can make you an American Christmas party, if you want. Can you? Yes, we can!"

Besides the noted differences among units, respondents express to be experiencing moments of uncertainty due to the recent changes that the company has suffered. This environment could affect their performance, as the manager Operations Manager for corporate catering said:

"There a lot of things going on in the company recently, it was not clear what kind of structure was going to happen. People is insecure, they don't know what's going to happen, they're afraid, all the negative emotions. That happens in companies that are going into a new structure. But I would like to see how this evolving is."

Structure drawbacks where also pointed out frequently by the SC unit's respondents. Such as, constant deficiency of communication and bond between employees and managers, undefined hierarchy or unclear activities and responsibilities for each position. All these factors were identified as potential hazards for the development of new offerings and the improvement of the overall operation. As mentioned by the Head of Formula team, the structure is not ready for implementing and developing many innovative ideas:

"I see that I do a lot of structure is out of my own head because I think that is the right way and the way we have to work. For me one thing very important is that you need to have a great line of communication, is very handy. That is something we need to build on at this moment. Especially because the department is not in the right way now.
I have a lot of people outside, a lot of the structure I want to build now is not possible because I don't have the people. They are 5 and all of them are now working into the operations, because we have sickness, stress, and a lot dropping out. Formula Managers are filling in those positions, location managers, cluster managers and different kinds."

Another organizational trigger that constantly called the attention to the respondents was the difference in beliefs and attitudes among them. These discrepancies are considered as a potential threat that might affect the unit's performance, this assumption was expressed by several managers:

"Yes of course [I look for new ideas] but is not something that is automatically or something that is in the company now. Is for me, because I'm interested and because I want to know what is happening and I want to seek, and I want to develop something new." (Head of Formula)

"I wish that a lot of location managers and managers like me have the same inspiration and view on what's happening on the on the food and beverage market." (Site Manager)

"Well, perhaps is different for every function within the company. Because maybe someone is more focus on customers than I am, but that is also again: the old company vs. the new style. You have different thoughts within the company. I would like to do that (partnerships with clients) or my team would like to and is not because the company tell me that we should act in that way." (Operation Manager for corporate catering)

Overall, the EBC unit seems to be more efficient in becoming aware of the organizational inconsistencies and the possible consequences. The need for a defined and improved structure, a more integrated a collaborative way of working among units and the head office, and a holistic corporate culture. The SC unit seems to be able to identify more frequently structure drawbacks that affect their performance. The ability to identify organizational triggers allow the respondents to be aware of the possible problems that may occur, how they could be handled and consequently deviate the focus of the units from innovation.

Table 5 summarizes the mechanism through which employees detect and point out organizational triggers. Ground on this, the following proposition is suggested:

Proposition 3: Business units with a strong capability of sensing organizational triggers (cautious attention to inconsistencies within the organization) are more likely to improve internal conditions or habits and be prepared to pursue an open innovation approach.

Table 5 Business units´ comparison of sensing organizational triggers

Business unit	Mechanism	Summary
School catering (SC)	Perceived differences in offerings	It is constantly noticed the lack of integration between units, due to the difference in offerings. While the school´s units considered that every day is different meaning that any operational issue could arise. For the events´ unit, the differentiator factor it's based on the type of event and its elements.
	Witnessed structural inconsistencies and uncertainties	The constant change in organizational structure have impact the employees´ performance, some perceive it as uncertainty and stress. The difference in hierarchy is also constantly observed, and the lack of specific job position´s activities make the employees work aimlessly, filling positions of missing colleagues and event taking responsibilities of other departments.
	Absence of corporate identity	The style of work, years in the company or personal beliefs vary across employees. It is recognized that there is not a clear identification with the company's ideals and beliefs.
Events/banqueting-business catering (EBC)	Eagerness to differentiate from schools	Event´s employees highlighted that schools are more standard and tight when it comes to the offerings. This unit has more freedom and do more than just offering food, something constantly detected by the employees. There is a current desire to point out the difference among units, to offer a wider range of products for events.
	Odd collaboration and structure among units	By detecting differences in the structure of each unit, also the lack of interaction and collaboration among them, employees detected a gap between the relation of units, an inconsistent connection and absent teamwork.
	Organizational structure perceived as inadequate	Structural flaws are seen as the cause of the lack of relation or communication between boss and staff. Employees are aware that the structure is not the optimal and that it has to be modified in order to achieve a higher performance and be more innovative.
	Imprecise roles	The functions and responsibilities are not well established for all employees. It is seen that factors; like having too many managers, not having boundaries in the activities and having excessive responsibilities, affect the control and organization of the unit.

Corporate culture different than personal convictions	Everyday activities and the decision made sometimes are not in line with employees' beliefs. Resulting in declarations like: I see things different because I'm new in the company, I like to do it this way and is not because the company tell me that I should do or is my perception is not the company´s perception.

4.4 Summary of conceptual model

A competitive advantage is the ownership of relevant and difficult to imitate assets and in order to sustain it is necessary to develop unique and difficult to replicate dynamic capabilities (Helfat et al., 2009; Teece, 2007). Dynamic capability aid firms to constantly create, expand, renew and keep relevant the assets possessed by aligning them to the changing environment and sustain a competitive advantage (Liao et al., 2009; Teece, 2007). Researchers have identified the three main components of a dynamic capability: (1) sensing changes and shaping opportunities and threats by scanning, creating, learning and investing in research and interpreting; (2) seizing opportunities, once an opportunity is sensed it is necessary to address it through new products, processes or services. Involves maintaining and improving competences and acquire complementary assets; (3) reconfigure resources and processes, to sustain a profitable growth by recombining assets and organizational structures mainly dependent on enterprise and its external environment (Helfat et al., 2009; Teece, 2007). This study proposes three capabilities inferred from the description and declaration of the respondents about different organizational conditions, habits and beliefs. These capabilities construct a dynamic capability that could allow the company to pursue an open innovation approach. The specific capabilities are the following.

First, business unit with a stronger ability to seek and embrace novel innovation strategies, which involves external collaboration practices on an ongoing basis, a constant involvement of customers in the development process and the commitment to seek and source innovative ideas. This capability enables the unit to keep their developments up to date with sourced, acquired and adapted knowledge. It also might help identify and address opportunities by pursuing innovative development and ultimately be able to enhance performance. In a sense, capability of seeking and embracing innovation strategies seizes the opportunities to innovate and increase the offerings. This capability is viewed as the seizing component of a dynamic capability.

Second, pursuing an open innovation approach implies transform current abilities. The capability of change and reconfigure competences, allow the unit to develop organizational imperatives and renew processes. This capability enables the unit to quickly update their internal practices depending on the

imperatives or needs and adapt to the desired working habits. Therefore, the capability of change and reconfigure competences is the reconfiguring component of a dynamic capability.

Lastly, the capability of sensing organizational triggers helps the unit to be aware of internal and environmental factors that may be shrinking the performance. This capability shows strong inclination to identify internal inconsistencies and their potential consequences. In a manner this capability embraces the opportunities to correct and prevent negative organizational conditions that may deviate from an open innovation approach. Capability of sensing organizational triggers act as the sensing component of a dynamic capability.

Collectively, these three capabilities: embracing new innovation strategies, change and reconfigure competences, and sensing organizational triggers conform a consistent dynamic capability, which empower units to *seize* novel innovation strategies, *reconfigure* processes and practices, and *sense* potential improvements for adopting an open innovation approach in the foodservice field.

5 Discussion and Conclusion

In the present study, it has been analyzed the mechanism of a food service firm to adopt open innovation approach as a source of competitive advantage. The case analysis incorporates theoretical streams and respondents perceptions to develop a dynamic capability framework that helps understand the adoption and gains of open innovation. Based on data collected from three business units from a Dutch firm, it was possible to identify emerging indicators, to later couple them with literature concepts and come up with managerial propositions. Taking as starting point the argument that firm-internal factors; such as firm's current organizational structure, strategy or culture, hinder innovation and also discouraging exploratory innovation (Keupp & Gassmann, 2009). It was possible to provide a conceptual model for promoting open innovation as a competitive advantage in food service which dissent from earlier studies by presenting the specific indicators and capabilities responsible for reassuring innovation. The insights revealed by researching a firm before commit to open innovation as a source of competitive advantage. The analysis proposed that by seeking and embracing new ways to collaborate, involve customers or source ideas, organizations can be able to achieve a competitive advantage by offering better and shortened time to market products, ahead of competitors. With the ability to change and reconfigure working habits, processes and practices, organizations are able to adapt and develop organizational imperatives that might result in a constant internal improvement of competences. Also, with the ability to sense organizational flaws and their potential issues, organization are able to detect and correct disruptions that might be diverting attention from innovation.

The identified capabilities in the present study offer promising implications for practice. For instance, the capability of seeking and embracing novel innovation strategies can assist organizations to innovate in service concepts, assortment or processes to meet consumer demands, adapt to changing environment and remain relevant in the industry. Specially in the Dutch industry where consumers might ask for new and more customized service experiences, and at the same time more standardized predictable demands (Hertog, Gallouj, & Segers, 2011). For example, the company has had positive outcomes when involving consumers like joint development of products, co-work with student associations, inclusion of local suppliers and producers in the location, and renovation of locations to match with the developed brands or concepts. This capability leans on a continuous exploration and renewal of innovation strategies, so that the company can be aware of consumer and food trends, remain updated and keep ahead of competitors. To develop such capability organizations can establish a solid core commitment to innovation by idea generation workshops, student involvement in development of products and brands and more inclusion of service office into the locations. By the involving employees from all areas at all levels, a sense of identity with the value of innovation can be created and encouraged. The organization can also strengthen communication among location and service office employees so that they can have a general idea of the consumers' demands, opinions or suggestions at the locations, which can provide the basis for a rapid response to emerging opportunities.

In terms of developing a capability of change and reconfigure competences, it is essential to carry out a periodic evaluation of the processes and practices to reestablish and enhance the procedures that lead to the desired way of working. For instance, it is possible to develop a unique assessment framework to evaluate, and when necessary update the processes and practices systematically. It is also essential to standardize even more the way processes are executed and decision are made. Firms should consider the relevance of such assessment framework and reevaluate the organization to ensure the alignment with the defined goals and strategies. The capability of change and reconfigure is based on a constant improvement of procedures, with the goal of adjusting and establish processes and practices that allow the firm to seek novel strategies.

In order to develop the capability of sensing organizational triggers, firms can promote practices that promote employees' awareness to their actions within the operations and also practices that enhance the detection of potential pitfalls. As an example, an organization can stimulate specific behaviors like informing inconsistencies, discuss vagueness or uncertainties, documenting previous failures and informing those experiences through the whole organization. Moreover, employees should have a certain

degree of freedom and flexibility to become aware and sensitive of the environment to understand opportunities and find new and better ways to perform (Teece, 2007). Overall, sensing organizational triggers propose practices that aim to constantly speak up deficiencies and to increase employees' attention to arising issues within the operations or in the working environment and the communication of deficiencies.

In summary, the main outcome of this study is that adopting open innovation as a source of competitive advantage requires: enhanced awareness to develop a systematic way of renewing current competences, avoid potential issues and align to the environment. These could ultimately allow the exploration and encouragement of innovation strategies.

To conclude, this study contributes to the existing literature of open innovation as a source of competitive advantage in foodservice. Previous studies on OI in the Netherlands established the motives and challenges of adopting this innovation strategy and agreed that differences in culture, structure and decision making are required (Van de Vrande, De Jong, Vanhaverbeke, & De Rochemont, 2009). Align with past research, it is argued that organizations 'ability to renew and reconfigure competence and integrate existing and emergent knowledge is enabled by a dynamic capability that ultimately allows innovation (Liao et al., 2009). The potential gains, such as technological innovation and product differentiation might assist in achieving a competitive advantage in the food industry, however it is demonstrated that innovation gains are dynamic, rather than static (Sarkar & Costa, 2008).

The present study certainly contains some limitation. The research is taking as a sample a food service firm in the Netherlands focusing on three business units for the purpose of developing propositions for future testing. The qualitative research is based on interviews to identify perceptions and practices, this method is accepted to investigate relatively new or unexplored phenomena and to develop theories (Eisenhardt & Graebner, 2007). By studying a more extensive number of organizations, it would be possible to improve the generalizability of the outcomes. Also, a longitudinal research would further extend the insights from this study, as the firm is currently into a transition phase after being taken over by a multinational corporation. Future research should select a bigger sample of firms within the same sector, to ensure that the findings are consistent, if not to detect the influencing factors. Also, complementary research on this case study can include a different reference period, since the firm is evolving, and the perception and practices might vary, also the employee rotation might influence. It is acknowledged that the proposed theory is supported by the case data, however in future studies other theoretical lenses and factors can be considered and included in the analysis. For instance, this study does

not fully consider the enterprise size, which may have an influence in the adoption of OI (Van de Vrande et al., 2009), the level of technology used, the examination of the complete new product development process or even the country's competitive environment. Moreover, the present study focuses on the organizational settings and configurations that impact the adoption and gains of an open innovation approach, future examination can be done in the gains and benefits obtained once the firm is fully engaged to OI, like the effectiveness of obtained knowledge (Forsman, 2011; Huizingh, 2011) technologies or skills learnt, and evaluate the overall benefits in performance and productivity obtained from OI activities. It is expected that the presented model stimulates new approaches to analyze OI as a competitive advantage in the food service field. There is definitely more opportunity to develop distinctive frameworks that can be proposed to better understand this relevant paradox in the future.

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Appendix

Appendix A: Interview protocol

INTERVIEW PROTOCOL

INSTRUCTIONS

Good morning (afternoon).

My name is Hector Parra, I am a Food Technology Master student from Wageningen University. Thank you for taking the time to talk with me today.

The purpose of this interview is to learn about the firm's configuration (strategy, structure, processes, decision-making style) and your perception about adopting and Open Innovation approach.

I have planned this interview to last no longer than one hour. During this time, we have several questions that we would like to cover. There are no right or wrong answers, or desirable or undesirable answers. I would like you to feel comfortable saying what you really believe and how you really feel.

I will be audio-recording our conversation. The purpose of this is that I can get all the details and simultaneously carrying an attentive conversation with you. Everything you say will remain confidential, meaning that only I and my supervisor will be aware of your answers.

INTRODUCTION (Interviewee Background)

You have been selected to speak with me today because you have been identified as someone who is a key element of the development process and has high interaction at the firm's boundaries. Our research project focuses on the improvement of the company services, with particular interest in understanding how collaboration and the usage of external information are engaged in this activity. The study does not aim to evaluate your techniques or experiences. Rather, we are trying to learn more about innovation in services, and hopefully learn about how external information can help develop new products or services.

1. Talk about you background
   - Study
   - Specialty
   - Previous experience
2. How did you get into the foodservice field?
   - Time in the company
   - Time in the position
3. Could you tell me about your role in the company?
   - Main activities/ responsibilities
4. How you are involved in the new projects (new product/service)?
5. What motivates the development of new projects (product/services)? And how is it carried out?
   - Reasons
   - Sequential / Parallel (concurrent)
   - Technology push/ market pull

CONFIGURATION (Institutional Perspective)

6. Could you describe the strategy of CORMET?
   - Mission/Purpose/Focus
   - Level of innovation
   - Scope of products (narrow, broad, diversified)
7. What are the main resources available to achieve the strategy?
   - Expertise
   - Main Competences, skills, knowledge
   - Technologies
8. How are the activities structured? And how is concentrated the authority?
   - Formal / informal
   - Centralized / Decentralized
9. Could you describe how are the decision made within the company?
   - Centralized / Decentralized
   - Amount of information used
   - Degree of focus (single/multiple solution)

OPEN INNOVATION (Collaboration and external knowledge)

10. Is collaboration and the usage of external information a major focus of attention and discussion in the company?
    - Why?
    - Why not? (reasons, influences, factors)
11. Which of your activities or tasks involve working with external partners?
    - How are those tasks?
    - How involved are they?
    - How frequent do you collaborate or seek for external partners?
12. When attempting to collaborate with external partners: What are the major challenges? What are the major opportunities?
    - How can barriers be overcome? (If any)
    - How to opportunities be maximized? (If any)
13. How the usage of external knowledge/skills/technologies influence the development of new projects (products/services)?
    - Would it be an opportunity? Why?
    - Would it be a challenge? Why?
14. What type of opportunities or challenges do you see emerging from the usage of external information and collaborations?
    - What motivates you to collaborate or seek for external partners? Why?

CONCLUSIONS

Thank you very much for participating this morning (afternoon).

Your time is very much appreciated, and your comments have been very helpful.

We are very interested in your opinions and your reactions. In no way is this interview designed to individually evaluate a person's responses.

The results of this research will provide useful information to the company, to understand how the firm configuration can help you to take full advantage of the incoming information and consider the most effective way to improve the company's offerings.

15. Is there any other information that you think would be useful for me to know? Or any additional comment about a topic that has not been discussed?

Again, thank you for participating.