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Eating with your phone first: the impact of unique packaging design on food photo-sharing intention in O2O food delivery

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#### INTRODUCTION

As a new type of consumer started to develop, the consequences in the business environment didn't take too long to appear. With the booming of online technology, individuals have started to engage in new digital activities, as well as gained new critical digital touchpoints with organizations (Kapoor A. P., & Vij M., 2018). Though, it was the advent and rapid growth of mobile technology that has fundamentally revolutionized the way in which brand and customers interact, by designing a seamless yet personalized experience for them (Kapoor A. P., & Vij M., 2018). As of today, nearly everything can be purchased not only online but also from the comfort of our personal smartphones. Therefore, companies have started to give consumers accessibility to their products and services through either a website or a mobile app or, in some cases, even both.

As a consequence of this, online-to-offline services (O2O) have recently gained popularity offering optimal solutions for both suppliers and consumers by providing a convenient and efficient service that combines offline consumption with the online environment (Zhao Y., & Bacao F., 2020). Among the many industries that embraced the O2O commerce, the food industry is definitely up on the top. Aided by the outbreak of Covid-19 as well, which completely transformed consumers' food consumption habits, restaurants and many other players in the food industry have decided to radically change the way they deliver their service to customers and implement new O2O food delivery solutions.

The digitalization of the food delivery market has brought significant advantages to both service providers and customers. For customers, the convenience of not having to cook, while also being able to choose from different restaurants comparing prices, meals and payment methods is unbeatable. Substantial socio-demographic transformations of the population, like the rise of full-time women workers and single-person households, are also contributing to the growing success of O2O food delivery (Kang J. W., & Namkung, Y., 2019). For suppliers, opening to the possibility of delivering their products to customers' home was like a breath of fresh air. Burdened by the economic crisis caused by the Covid-19 pandemic, restaurants have found in food delivery solutions new sources of revenues, a way to reduce overheads costs and to reach a different and wider audience (Deliveroo, 2020; Deloitte, 2020b). New touchpoints become available between organizations and their customers, as well as new business solutions become attractive to such industry. The phenomena of dark kitchens and virtual restaurants are just some examples of that.

In order to exploit such new dimensions, new marketing strategies appeared to be necessary as well. In a context where the relationship with the customer is not face-to-face anymore, restaurants' presence online has quickly become as important as their physical presence. Service providers that operate in the O2O food delivery sector engage with their customers through O2O food delivery platforms, websites, social media, user-generated contents and food packaging. Not having a direct relationship with customers makes marketing activities even more important, as they substitute the work of restaurant owners, maîtres and waiters.

In the present research the focus will be on the role of packaging and of user-generated content (in particular, food photo-sharing) as communication channels for service providers in the O2O food delivery market. A

creative, thoughtful and unique packaging design can efficiently communicate brand's value and quality, differentiate the brand among the competition and add value to the experience (Moreau C. P., 2020; Yang F. X. et al., 2021). As the atmospheric elements of the interiors and exteriors do in the context of a physical restaurant (Apaolaza V. et al., 2020), the present study hypothesize that a unique packaging design can influence customers' food photo-sharing intention in the context of O2O food delivery consumption. The practice of food photo-sharing, which has inundated the social media realm, has become of utmost importance for restaurants, as it represents free digital marketing for them. Service providers, thanks to food photo-sharing, experience an increase in the extent of online information regarding their brand, a decrease in advertising costs and eWOM (Apaolaza V. et al., 2020; Zhu J. et al., 2019). Hence, this phenomenon holds great managerial relevance, even though it has been mostly ignored by the literature.

Therefore, this study seeks to examine how a unique packaging design, in the context of O2O food delivery, can influence customers' food photo-sharing intention. In particular, it is hypothesized that a mediation effect of self-expression exists between the independent and dependent variable. Moreover, by including the attitude toward social media sharing as a potential moderator of the relationship between self-expression and food photo-sharing intention, this study helps in better understanding if customers' attitude toward social media sharing can influence customers' intention to post user-generated contents (UGCs) on social media.

Thus, the purpose of this research is:

- to further explore the food delivery industry, which is a clear example of a sector that took advantage of the online-to-offline technology;
- to extend previous social media and UGC researches and especially focus on the food photo-sharing phenomenon and on attitude toward social media sharing;
- to dug deep into the importance of packaging in the food industry;
- to contribute to the body of research on digital identity and self-expression.

The present study is composed of three chapters. In the first chapter it will be explained the potentialities of the food delivery industry, acknowledging the newly formed food consumption demand and supply, the managerial relevance of the food photo-sharing phenomenon and the importance of food packaging as a communication tool. It will be analyzed also the testimony of the dark kitchen Delivery Valley as a case study for the success of dark kitchens, food delivery services and new marketing tools like food packaging and food photo-sharing. In the next chapter, a thorough analysis of the literature will be performed, covering the topic of O2O food delivery, packaging design, UGC and food photo-sharing. Then, it will be retrieved from the literature significant proofs that self-expression can be used as a mediator in the relationship between unique packaging design and food photo-sharing intention. The same thing will be done for attitude toward social media sharing as the moderator of the relationship between self-expression and food photo-sharing intention. Lastly, in the third chapter statistical investigations will be performed to confirm the hypothesized moderated mediation model. A pretest and a main study will establish whether the three hypotheses will be verified or, on the contrary, rejected.

#### **CHAPTER 1: MANAGERIAL RELEVANCE**

#### 1.1 The scenario

Since nothing is more vital, essential and universal than eating (Usunier J.-C., & Lee J. A., 2013), consumers have shown a great deal of interest in many different aspects of food consumption. But in a culture largely transformed by social media, where the new logic essentially views firms as facilitators in the process of value co-creation with their customers (Grönroos C., & Voima P., 2013; Lusch R. F., & Vargo S. L., 2014), what really shows the involvement in the experience of food is when we are able to have it framed in a picture (Zhu J. et al., 2019).

The practice of taking and posting on social media a photo of the food that is in front of us (i.e. food photosharing) has become the normality for many people, enabling a modification of how consumers approach to food (Spence C. et al., 2016; Zhu J. et al., 2019). Always more frequently people devote precious moments before their consumption to virtually depict the feelings that the food is giving them, following the mantra that "camera must eat first" (Koh J., 2015). Consumers, in fact, were found to give enormous importance to the act of sharing their dining experience (Atwal G., et al., 2019), regardless of whether this might take some time off their actual physical experience. This phenomenon has become of utmost importance for organizations in the hospitality industry as it represents free digital marketing to the benefit of the service provider. In fact, this kind of user-generated content (UGC) allows service providers to experience an increase in the extent of online information regarding the brand, a decrease in advertising costs and ultimately eWOM (Apaolaza V. et al., 2020; Zhu J. et al., 2019). Moreover, as any other UGCs, food photo-sharing helps restaurants in engaging with their consumers through a more subtle yet effective way: UGCs are, in fact, considered by other consumers a more trustworthy proof of the actual dining experience than producer-generated contents (Cheong H. J., & Morrison M. A., 2008), and hence they represent an incredibly useful marketing tool for organizations in this industry.

Even though the subject of social media and UGC have registered an increase in empirical research and in managerial attention, there is still little knowledge on food photography as a social media tool. However, since the year 2020 has brought unprecedented consequences on all economic and consumption-related activities, other dynamics have come into place and fueled the interest toward such phenomenon.

In response to the dramatical consequences of the Covid-19 pandemic, which enormously affected the supply and demand of the food industry, restaurants and caterers have rolled up their sleeves and radically changed the way they deliver their service to customers. Aided by the fact that consumers have also changed their consumption habits, it was registered a boost in the shift from "traditional in-store service to online-to-offline service (O2O)" in the food industry (Zhao Y., & Bacao F., 2020), which allowed restaurants to survive and still meet consumers' needs. Thus, consumers are increasingly taking advantage of the food delivery or take away service, in order to satisfy their demand for food consumption while still abiding by the rules against the pandemic spread. In such context, restaurant owners have become aware of the fact that what is delivered to

customers' home now constitutes the only representation of the physical store and one of the most important touchpoints between the brand and its target audience. For this reason, their attention toward how the packaging in which the meal is stored looks like and what potentially communicates with its visual appearance is growing. As mentioned above, customers frequently take pictures of their dining experience, and they do so if they are inside physical restaurants as well as if the food is delivered at their home. Consumers were found to be generally more attracted and pleased by non-prototypical and creative packaging and thus potentially more willing to capture the moment with photographic documentations when they encounter such designs (Noble C. H., & Kumar M., 2008). Restaurants are taking advantage of this, using packaging as a way to communicate specific meanings and narratives, visually conveying the brand characteristics and personality and triggering the desired reactions.

The Covid-19 pandemic has also been fundamental for the development of the digital consumer (Deloitte, 2020a). More and more people have understood the importance of digital technologies and have become increasingly comfortable with their digital environment. According to Deloitte's Digital Consumer Trends (2020a) report, the second most performed digital activity during the lockdown in Italy in a 18-75 year old audience, after reading online news, has been going on social media. The ability to communicate with their customers on social media has been for most of the organizations the only mean to keep the relationship going between them and their audience during such unpredictable circumstances, as well as the only available space to reach new customers. Thus, for those restaurants that managed to get into the O2O food delivery game or for those businesses that relied on e-commerce, their presence online has quickly been compared to their physical presence. As a consequence of this, social media marketing activities have grown in importance and have been increasingly viewed as essential to keep up with the social and economic changes, but also to position the brand in the new digital environment. Food photo-sharing, as part of the UGC universe, from a managerial point of view is also a useful instrument to spread favorable brand attitudes, perceptions and information (Apaolaza V. et al., 2020; Kim M., & Lee M., 2017; Smith A. N. et al., 2012), and is also a relevant booster of purchasing behaviours (Malthouse E. C. et al., 2016).

All in all, this research aims at understanding how a unique packaging design, in the specific context of O2O food delivery, might influence the consumer's food photo-sharing intention through self-expression, and how does the attitude toward social media sharing might moderate the relationship between self-expression and food photo-sharing intention.

#### 1.2 The new food consumption demand

The size of the O2O food delivery market has reached in the latest years outstanding dimensions, which where even expanded by the advent of the pandemic in 2020. According to Statista's Online Food Delivery (2020a) report, the food delivery segment worldwide is expected to be worth 151 billion dollars in 2021, with an expected revenue growth of 8.4% in the year later. These results are impressive, especially if we think that

only 5 years ago the worth was almost half of what is now (Hirschberg C., et al., 2016). Nevertheless, they are the perfect representation of the consequences of a newly formed food consumption demand.

Changes in consumption-related activities regarding food has been traced to significant socio-demographic transformations of the population. Worldwide, the rise of white-collar workers, college students and single-person households have impacted on food consumption habits and meal preparation activities (Ana I. D. A., et al., 2007; Maimaiti, M. et al., 2018). The lack of time, interest or skills in cooking, that conventionally characterize this population segment, which is mostly composed of Millennials and Gen Z, might lead them in indulging to convenience-seeking tendencies and consequently in purchasing food delivery. According to the Just Eat (2020) Italian report, most of the orders from the platform are indeed made by people that age. Moreover, the growing food offer differentiation, that the new O2O food delivery platforms provide, enables the younger generation to also appreciate the convenience of having a diversified dietary intake, exerting limited effort (Maimaiti, M. et al., 2018).

Even though the phenomenon blew up first in Asia and in the USA, the convenience of food delivery has been highly valued by Italians as well. According to the FIPE (Federazione Italiana Pubblici Esercizi) food service's report (2019), an Italian spend an average of 37 minutes each day to cook their meals and an average of 29 minutes to consume them. Combining them, we could say that a little bit more than one hour on average is spent every day for the preparation and consumption of food. These results are consequences of a decrease throughout the years in the time devoted to cooking, which is explained also by a general reduction in the time spent at home (FIPE, 2019), and of an increase in the amount of food delivery service utilization. The main motives that lie behind the intention to purchase food delivery were found to be lack of desire to go out (37,1%), lack of willingness to cook (31,5%) and absence of grocery products at home (35,6%) (FIPE, 2019). The rise of full-time women workers as well has contributed to these results, as they are more and more taking advantage of the convenience of outsourcing meals from restaurants for them and for their family (Bowers D., 2000; Kang J. W., & Namkung, Y., 2019). Thus, what emerges from these data is that food delivery is strongly associated to convenience. And in a world largely transformed by a general increase in the pace of life, work and time pressure, convenience becomes primary for consumers.

Giving support to this, it's interesting to analyze the Just Eat (2020) Italian report, which outlined 6 different personas that depict 6 different potential food delivery customers. The first one is the "busy woman", who is a young female worker that takes advantage of the food delivery service to treat herself after a long day of work, especially during the week. She is at ease with online payments and is also very bold in her food choices. The second identikit is the "smart family", which is composed of 40-45 years old adults with children that use food delivery for get togethers and special occasions. They tend to order from the same trusted restaurants, especially during the weekends. The third one is the "rookie", who is a woman under 24 years old that most likely studies and that sees food delivery as an exciting and out of the ordinary experience. She is often the one who takes care of the orders for her family and generally places her orders during the weekends. The fourth persona is the "party planner": he is a young male under 35 years old and a very active user of O2O

food delivery platforms. He takes advantage of the service during the weekends for the purpose of special events, birthdays, and anniversaries. The fifth identikit corresponds to the "determined", who is a young student that sees food delivery as a mean to celebrate his/her academic successes. He/she is a very active user, who tends to place orders during the week. The last persona is the "cuddler", who is a young woman that lives alone and that uses food delivery as a mean to treat herself during stressful times. She is most likely going to order during the week, in order to cheer herself up with some tasty food.

Taking the lead from the last persona analyzed, the Just Eat (2020) Italian report has also highlighted the different moods at which customers tend to purchase food delivery. Focusing on customers' moods is interesting as it might become influential for the main subject of the present study: customer's behavioral intention to take a picture of the food and to share it on social media. Different moods might lead to different reactions that could (or could not) induce customers in taking a picture of the dining experience. Even though this is not the main motive for food photo-sharing that I intend to study, it is still relevant, for the purpose of this research, to understand how other motives can impact and influence customers' behavioral intention to act on social media. The Just Eat (2020) Italian report explains that customers can display 5 different moods while ordering: they can feel positive and relaxed, they might feel excited, they could have a pleasurable feeling of anticipation or, on the other end, customers might feel extremely tired and fatigued or even feel sad. These "food moods" reflect and anticipate also the consumption occasions in which the orders might take place (Just Eat, 2020): those that feel happiness and relaxation might order because of special events, get togethers with friends or family or to celebrate a specific happening. Those that feel excited were found to be connected to experimental orders, weekends and social events. Especially during the Covid-19 pandemic, in which social events were reduced to lowest terms, the attention toward the communal aspect of eating has grown in importance: as the rhythm of the lockdown life became repetitive and almost alienating, food was used to "punctuate and invigorate the days" (Waitrose & Partners, 2021), as well as to engage in social interactions. In such context of joviality, I believe that customers might be more willing to frame the dining experience in a picture, as posting has also been found to be positively related to happiness (Bialobrzeska, O. & Smoktunowicz, E., 2019). However, food delivery purchase has also been linked to feelings of sadness and fatigue, in which the food is considered a treat to pamper yourself. Here too, the individual might decide to portray the indulging experience through food photo-sharing, in order to document and share the fueling of the lost enthusiasm.

Focusing on moods might be an interesting point of view from which to understand and further analyze the relationship between packaging and food photo-sharing intention as well. Food photo-sharing doesn't have a clear definition, yet it can be explained as the photographic representation of the dining experience, including the table, the setting, the location and the meal itself. Due to the extremely personal point of view chosen by those that engage in the food photo-sharing phenomenon, the latter has been increasingly associated to the practice of unboxing. Exactly like what happens in an unboxing video where the unboxer reveals the content of the retail package, food photo-sharing enables users to depict the content of the food packaging. Hence, this

is where the mood might step in. Food delivery customers were found to be characterized by different states of mind, that range from excitement all the way to sadness. Starting from those that feel excitement and anticipation, being welcomed with a standardized, basic and unceremonious packaging might completely ruin their expectations and enthusiasm, which on turn might impact on their evaluation of the brand and of the experience (Moreau C. P., 2020), leading them to not create food photo-sharing contents at all. Otherwise, a unique, out of the ordinary and creative packaging design might live up to their expectations or even exceed them. As opposed to this, those that order in a state of sadness and fatigue might be delighted when welcomed with something personalized and unique that can contribute in cheering them up, pushing them to express such feelings through food photo-sharing. If they receive a standardized packaging, though, they would not be surprised or amazed and their state of sadness will potentially persist, jeopardizing the chances of creating UGC about it. It goes without saying that the restaurant cannot predict at which mood its customers will order the meal, but it's clear, even from this point of view, that being faced with something unique and atypical can certainly help in the intention to engage in food photo-sharing activities.

Another very interesting report about the food delivery growth during 2020 was developed by Martini L. & Di Lorenzo A. (2020), respectively a food journalist and an international food photographer. According to their research, which is made of a sample that counts 1000 Italian participants, 83% of the people interviewed used to go to the restaurant at least once a week, 57% of the participants stated that they are taking advantage of the food delivery service, and, of those 57%, 45% are ordering at least once a week. These results are relevant in understanding that food delivery has partially substituted the practice of eating out, making available a valuable alternative even during the lockdown. What emerges from the research is also that more than half of the people ordering food delivery are willing to go to the same restaurants they are ordering at when the Covid-19 will be over: this means that the economic efforts that restaurants might exert in undertaking O2O food delivery, or any other expenses connected to it (e.g. personalizing the packaging), is worth it. Moreover, 59% of the participants admitted that they are certainly going to continue to use the food delivery service and 26% are still uncertain about it.

Although these data outline a favourable scenario in which the personalization of the food packaging and the food photo-sharing practice might flourish, the most important information comes from the analysis regarding how participants got to know the restaurants they are ordering at: by far the most popular answer was "from social media". The results show that 43% of the respondents acknowledged the food delivery service of the restaurant from their social media network, 35% from O2O food delivery platforms and 24% from the restaurant's official channels (e.g. website and social media page). This means that nearly half of the people that are ordering food delivery were first attracted thanks to their social media network, through for example UGCs or eWOM. In such context, food photo-sharing is probably the most powerful tool to engage customers, as it shows them the most unpolished, immediate and reliable version of the meal that they could get. Thus, it's not surprising that restaurant themselves are suggesting this practice to their customers (Zhu J., et al.,

2019). Thanks to this, service providers are able to reach their audience without even noticing it, making the most of the photos, videos and reviews that inundates social media.

### 1.3 The new food consumption supply

The development of a new food consumption demand has been followed likewise by a change in the food consumption supply. With the goal of finding new sources of revenues, many service providers in 2020 opened up to one particular innovative business alternative that could have benefitted them while in desperate need of an economic turning point. Attracted by the potentialities of a fast-growing sector, many restaurants started to join the food delivery market, choosing to back up their physical business with a digital counterpart. The food service industry has always been strongly attached to the physicality of the service that it provides, yet as many other markets in the recent years it totally changed its dimension, finding fertile ground also in the resources of the digital world. The Just Eat (2020) Italian report explains that the Just Eat O2O food delivery platform has registered in 2020 an increment of 30% of restaurant partners, with a particular spike during the lockdown period. At the end of 2020 the worth of the digital food delivery market in Italy was around 800 million euros, but is projected to reach 1 billion euros in 2021 (Just Eat, 2020; Statista, 2020b). In Italy, the food delivery segment alone represents the 20-25% of the whole online delivery sector, registering a clear growth considering that in 2019 was at the 18% (Just Eat, 2020). These results are important to get the measure of a phenomenon that skyrocketed during 2020 and that completely changed both the population's food consumption habits and the portfolio of services that organizations can offer.

The service providers that were involved in the switch in food consumption supply in favor of delivery options are several. Full-service restaurants, characterized by table-service and the presence of waiters, were the ones that were affected the most by the Covid-19 restrictions, since their service strongly relied on physical interactions with customers (Deloitte, 2020b). The digitalization of the food service industry though has helped them in finding new sources of revenues and innovative solutions to overcome the problematic situation, as it will be better explained later in the chapter as well. Quick-service restaurants, which are those that focus on fast food offerings, instead were the quickest to react. Their menus can be easily adapted to the food delivery service and as such they were the least affected by the pandemic (Deloitte, 2020b). In some cases, they were also already active users of O2O food delivery platforms. Lastly, cafés and bars, but also street food kiosks, were affected only partially by Covid-19 restrictions, registering a contained slowdown in terms of revenues (Deloitte, 2020b).

The interest toward the food delivery sector has been strongly stimulated by the proliferation of O2O food delivery platforms and apps, that managed to include a third party, between the restaurant and the customer, equipped with a digital platform and a delivery workforce (Maimaiti, M. et al., 2018). The main advantage of such service resides in the possibility to outsource the whole processes of online ordering and delivery service. This has substituted the old practice of telephone ordering with a newer, more convenient and more user-friendly alternative.

The most popular O2O food delivery platforms in Italy are Just Eat, Deliveroo, Glovo, Uber Eats and Cosaporto (Martini L. & Di Lorenzo A., 2020). According to the Covid-19 Seo report powered by Quarzio, that tries to understand how users ask for and obtain information from the most important search engines on the web, the analysis of the data from those that were considered the most relevant sectors during the pandemic shows that, for food delivery, overall Just Eat registered the most searches from users (*Fig. 1*). The capillarity of these platforms is impressive: Just Eat alone can cover 100% of the cities with over 50.000 inhabitants and thus reach approximately 40 million Italians (Just Eat, 2020). All platforms and apps work similarly, providing information about the food, the restaurant and the delivery route. As far as the target audience is concerned, they are all alike, with the exception of Cosaporto that, focusing on the quality of the restaurant partners, interact with organizations, B&B and hotels as well (Fioretti A., 2019). One last important O2O food delivery platform is Too Good to Go. Too Good to Go is a company "driving a movement against food waste" (Too Good to Go, n.d.), which commits to connect businesses and restaurants that have surplus food to users that are still willing to enjoy it, engaging in a win-win situation. The mission of the company is to try to minimize the amount of food waste across the market, making a bet on sustainable food delivery options.

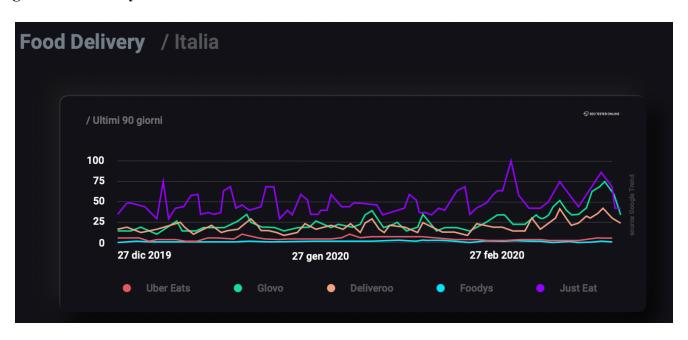


Fig. 1 Food Delivery Trend Search

Source: Quarzio, 2020

The increasing competition among players and the growing interest toward user-generated contents like food photo-sharing has been an incentive for restaurant owners to stand out through visual differentiation. When consumers were still allowed to visit restaurants, this phenomenon was expressed through evocative and thoughtful interior design, aesthetically pleasing plating and photogenic dishes (Apaolaza V., et al., 2020). Some restaurants have even been going as far as changing their menu in favor of more shareable solutions (Zhu J., et al., 2019). The rationale behind focusing on the visual appearance of things consists in considering

the normal customer as an influencer for its own social media network and thus in employing influencer marketing without paying for any particular influencer. The literature has found out that the restaurant's environment can influence the perceived quality and value of the dining experience (Apaolaza V. et al., 2020), customers' emotional arousal and also their willingness to pay more (Lin I. Y., 2016). At home too, individuals have started to search for eye-catching tableware for their home-made food, that might look good through the lens of social media: sales of patterned bowl registered an increment of 12% due to this (Waitrose & Partners, 2016). The same Waitrose & Partners's report (2016) posits that 39% of the people interviewed are now taking greater care over how they display food in comparison to what they did 5 years ago. This result shows that food, especially for Millennials, is no longer considered a mere combination of nutrients and tastes but it's also a "social currency" (Harish D., 2017), in which the visual appearance matters just as the ingredients that compose it (Waitrose & Partners, 2016).

Having considered this, it's easy to think that the same concept can be applied to the food that is delivered at customers' home too. Even though an intermediate step exists between the restaurant and the customer, which is not existent when the meal is consumed in a physical restaurant and that could potentially ruin the performance of the service, customers are still looking for that same level of amusement and quality. And restaurants should take note of that. The atmospheric elements of the interiors could be conveyed by a thoughtful and unique packaging that manages to efficiently communicate the brand's value and quality (Yang F. X. et al., 2021), delivers the meal how it was meant to look like and that also differentiates the brand among its competitors. Moreover, restaurant owners should encourage customers to create content about their brand, increasing their visibility in online food communities or simply stimulating food photo-sharing among customers' social media network, considering how important this phenomenon has been found to be. This would enable a quick circulation of information about the brand, about its personality and about its visual appearance, and thus would potentially lead to an increase in positive eWOM at a very limited cost as well. The digitalization of the food service sector has also eased the advent of other innovative digital perspectives and solutions in the market. One of the most important ones is definitely the implementation of AI technology: with the goal of cultivating the best possible customer experience, many service providers have seized the opportunity to use the artificial intelligence for the benefit of their business (Alper A., 2020). AI technology has been successfully used for customer-facing roles, to integrate voice ordering, to manage more efficiently and track more accurately delivery orders and, lastly, to back up staff's work (Alper A., 2020). AI can gain data and give insights on many useful information, such as sales performance, inventory depth, customer interest trends and busyness of the store, so that it's possible to analyze real-time data in order to generate the smoothest customer experience possible.

Another notable phenomenon for the food delivery industry is the one of the dark kitchens. The latter is an umbrella term for many other denominations, such as ghost or cloud kitchens and ghost or virtual restaurants, but essentially represent "food production laboratories not open to the public that serve only to the delivery

platforms or that belong to the platforms themselves" (Deloitte, 2020b). Dark kitchens eliminate space for diners in favor of an exploitation of the production resources for the food delivery market only.

In Italy, Deliveroo was the first to understand the strengths of such practice, launching the project of "Virtual Brands". The project consists in helping restaurants in the creation of virtual only brands that can be added up to already existing physical restaurants. This solution creates the so-called virtual restaurants. The project in 2020 comprised 464 virtual businesses (363 more than in 2019) and is present in 41 cities across the country (Deliveroo, 2020). Matteo Sarzana, General Manager of Deliveroo Italia, explained that the success of the Virtual Brands project comes from the need to expand the restaurant offering (Deliveroo, 2020): those businesses that are willing to open up to new types of cuisine that might clashes with their traditional activities or that have the abilities, resources, spaces and the drive to expand their business to a newer target audience are the ones that take advantage of this opportunity (Deliveroo, 2020). Glovo too, at the beginning of 2020, launched his first "cook room" in Milan, which is a slightly different proposal compared to Deliveroo's Virtual Brands (Netti E., 2020). Glovo's cook room is the clearest example of a cloud kitchen: it makes available to six different brands the possibility to co-work and use a fully equipped professional kitchen for the development of their new dishes at limited costs compared to the ones required for the opening of a full-on new infrastructure (Netti E., 2020).

Deciding to invest in one of the dark kitchen's solutions doesn't only allow restaurants to deliver their service to customers' home, but it permits these service providers to create a parallel and incremental channel, which can reach a newer demand and a different audience, as well as represents a way to reduce overheads costs (Deliveroo, 2020; Deloitte, 2020b). Thanks to this, restaurants are able to serve many more clients without the need to incur in additional expenses such as investing in the creation of a second business, buying another property or adding more dining spaces (Cho M., et al., 2019). This has been extremely useful especially for full-service restaurants, that were sometimes restricted by their not-delivery-friendly menu offerings. Dark kitchens provide restaurants a "very low-risk expansion platform", that enables them to focus only on cooking without worrying to much about the operational difficulties of managing another brand (Faithfull, M., n.d.). According to Deloitte's Foodservice Market Monitor (2020) "this solution in some cases leads to an increase in turnover up to +400% for restaurants". The business implications of the dark kitchen phenomenon are several: digital innovations boost both the single activities and the internal systems, the value chain is completely redesigned for the purpose of innovative technology and the upward and downward integration increase to maximize value (Deloitte, 2020b).

One successful example of an already existing full-service restaurant that took advantage of Deliveroo's Virtual Brands is the restaurant "Ai Folli" from Mestre. The owner of the restaurant admitted in an interview in the Deliveroo (2020)'s article about virtual restaurants that without the Virtual Brand they would have not survived due to Covid-19. Instead, their Virtual Brand allowed them to register profits three times higher than what they were used to before (*Fig.2*). Undoubtedly, dark kitchens are one clear example of how technology has helped improving the food service market.

Fig. 2 "Ai Folli" profits with the creation of a virtual brand



Source: Deliveroo, 2020

Another very relevant testimony of the success of dark kitchens, and more specifically of ghost kitchens, is the one of Delivery Valley, which though I will cover more in depth in the next section.

Although the development of a novel food consumption demand and the advent of a third party that manages the ordering and the delivering processes has nourished the food service sector, this process has not been free of controversies. O2O food delivery couriers set themselves in what is now called the "gig economy", which is a new business model based on workers that "enter into formal agreements with on-demand platforms to provide services to the platforms' clients or task providers" (Kost D., et al., 2020). This kind of job is mostly made of small, quick and disaggregated tasks, which are "arranged via a platform (often an app) and performed through direct contact with customers" (Kost D., et al., 2020). The nature of such job thus force couriers to work in a state of uncertainty given by the fact that they are not classified as regular workers, yet as selfemployed freelance workers responsible of their own economic maintenance. The lack of a formal relationship between the drivers and the delivery platform, which causes the absence of negotiations between the employer and the employee, obliges these couriers to work without an insurance, sickness leave or any economical support for the tools they use to work (e.g., the bike). Moreover, the decisions made by the food delivery platforms are not agreed with the employees, as their choices regarding couriers' work shifts and pay rates are determined by an algorithm (Kost D., et al., 2020). In Italy, this uncertain situation has led to the emergence of strikes and to the creation of some self-organized unions of workers, which have drawn the attention of the Italian Government. Even though these problems don't directly concern to restaurant owners, they represent a critical part in the management of a business that relies on food delivery service. Strikes, poor working conditions and dissatisfaction of couriers do impact the delivering process and thus potentially damage the proper functioning of the food delivery service. As of today, though, Italian couriers have managed to obtain several rights: food delivery platforms are obliged to hire them as "para-subordinate workers" and to benefit them with certain protections, such as the "minimum wage, social security contributions, and the right to sick

leave" (Gangemi A., 2021). Just Eat has also announced that it will be the first platform to hire couriers under an employment contract and with a pay rate of 9 euros per hour.

## 1.4 Case study: Delivery Valley

One of the most relevant examples of both the success of dark kitchens (and of the food delivery service) and of the importance of new marketing tools like food packaging and food photo-sharing is definitely Delivery Valley. The latter is a brand created by Maurizio Rosazza Prin and Alida Gotta, two Masterchef Italian participants, who have foreseen the potential opportunities given by the world of dark kitchens before the phenomenon blew up even more due to the lockdown and the Covid-19 pandemic. The project of Delivery Valley is composed of many initiatives: they own three food laboratories in Milan that serve only to the food delivery sector and set themselves the ambitious goal of becoming food incubators for the best rising brands in the market and of helping brands in becoming full on kitchen media (Delivery Valley, n.d.). The business has been launched in June 2020 and has reached in only one year nearly one million euros of revenue (Montagnoli L., 2021).

The success of Delivery Valley lies in their obsession for the qualities of the ingredients and in offering original tastes and bold recipes. It's not by chance that their payoff is "Italian kitchen reloaded", which embodies their attention toward the revaluation of the Italian food culture through original and creative experiments. In an interview for the Gambero Rosso, the owners confessed also that they took enormous inspiration from the expertise of the fashion industry, which is based on launching different collections (Montagnoli L., 2021). Their idea, in fact, is to transpose this concept to the food delivery sector by occasionally coming up with different products, following the latest food trends or even starting one themselves. Hence, their products are trendy, cool and up to the latest interests of their target audience, which are predominantly Millannials.

Even though they've decided to invest in other activities as well, the most important source of revenues for Delivery Valley are still their own brands. Their project in June 2020 started with four different virtual brands, each with its own distinctive personality and identity, that were all made in the same kitchen by the same cooking team. "Lievito Mother Fucker" is their pizza brand, a particular type of pizza that was developed in 2 years of work, "Giga Burger" is their irreverent and outstandingly big burger made with home-made sauces, "Gira Arrosto" is their roasted chicken brand and lastly "Fritt Fighter" which is their ambitious project of fried meat and fish (*Fig.3*) (Delivery Valley, n.d.). In their three food production laboratories the products are developed with an obsessive attention to details: every single component of the customer experience and of the food itself is tested and fixed accordingly. Their first concern when developing their food options is always the customer, how the meal is delivered and how it will be experienced after the interval of delivery. Delivery Valley in fact understood that, since the service that a ghost kitchen like theirs provides is completely different from that of a physical restaurant, the way the food is prepared, cooked and delivered must be different likewise (Montagnoli L., 2021). For this reason, for instance, they decided to limit the delivering range to 3km (maximum 20 minutes for the delivering process) and developed a special pizza dough that after

20 minutes from cooking stays soft inside and crunchy outside or that it still tastes perfectly one day after the delivery, if put in the oven (Moncalero N., 2020). Their burger as well is designed so that the bun can seamlessly absorb the burger juices coming from the patty while the courier is delivering the package (Moncalero N., 2020).

Fig. 3 Some of Delivery Valley's own brands











Source: Delivery Valley, n.d.

Throughout the months that Delivery Valley has been open, aided by the list of previous orders updated real-time, they managed to understand which type of food their target audience enjoys, in order to be able to predict what would fit in well in their own brand portfolio as well (Montagnoli L., 2021). After the original four brands, they developed many other projects, like "Giga Ribs" (delicious pork ribs with a secret rub), "Cat-su Sandro" (Italian interpretation of the famous Japanese recipe) (*Fig.3*), "Driiink" (delivery-friendly cocktails) and "Gnocco Nero" (fried black gnocco coupled with fish or meat), equipping all of them with a well-built image and personality (Delivery Valley, n.d.).

As mentioned above, though, the project of Delivery Valley is not restricted to the kitchen alone. The strength of Delivery Valley, in fact, resides in their profound knowledge of the market and in their willingness to shape their business as an all-around food innovative project. They are not only a dark kitchen, they do not only own several food brands and they are not only a food incubator organization or a food media agency. They are all these things at the same time, and this represents their main strength and point of difference with their competitors.

As an incubator hub Delivery Valley has committed to help emerging interesting brands to get in the food industry, providing them with their know-how, their communication assets and, if necessary, even the location to come up with quality offerings. Of course, their job as facilitators would be mostly concentrated on the food delivery market, therefore the potential brands that are interested in such service are those that are willing to enter in the food industry without a physical infrastructure. Their mission to distance themselves from the traditional physicality of the food service market is transposed to those rising brands that, witnessing the success of Delivery Valley itself, are willing to share their same path, with the idea that the physical restaurant might sometimes be detrimental to the proposed business idea (Delivery Valley, n.d.). To my knowledge, thus far their only incubated brand is "The Grapeist", an international wine delivery company (Delivery Valley, n.d.).

The other main activity that Delivery Valley is focusing on is the one of the kitchen media. Their project consists in offering marketing and communication activities for brands in the food, beverage or lifestyle sector, that aim at promoting their brand through Delivery Valley's products and marketing channels (Delivery Valley, n.d.). The idea is to use Delivery Valley's kitchen and offerings as a communication channel: brands in the food sector can co-create recipes with Delivery Valley's products, brands in the beverage market can be paired up with Delivery Valley's offerings and lifestyle brands can develop joint activities with them. The process of partnership is then exploited through collaborative advertising campaigns, so that a seamless communication activity of the collaboration between the brand and Delivery Valley is created to the benefit of both businesses (*Fig. 4*).

Brandstorming

Brand+Delivery valley: idea

We cook the brand

They deliver

People enjoy

They deliver

People order

People order

People order

People order

Fig. 4 Delivery Valley's kitchen media process

Source: Delivery Valley, n.d.

The benefit of such activity is twofold: for the brand, the possibility to be included in a Delivery Valley's recipe means that potential consumers can taste and try the product before actually having to buy it. It's important to remember, in fact, that the consumer is not directly buying the brand's product, yet he is engaging in some sort of free tasting through Delivery Valley's order. In the food industry, which is mostly characterized by intangible offerings that can seldom be tested in advance, the possibility to try the product before the purchase is strongly appreciated. On the other hand, for Delivery Valley these collaborations are useful for the purpose of delivering always new and interesting combinations of products and in creating a better customer experience for their audience.

The "weapons" that Delivery Valley is putting into service for brand's exploitation in the kitchen media project are several (Delivery Valley, n.d.). The first is the fact that, through Delivery Valley, brands would be able to reach a targeted audience of Millennials, who are food enthusiast and currently living in Milan (although they are planning to expand in the next months to other cities as well). In autumn 2020, Delivery Valley registered

an average of 400 daily orders that, thanks to these collaborations, could become potential customers for the brands taking part in the project (Delivery Valley, n.d.). Another important element of such partnership consists in the pairing of products: Delivery Valley put a lot of emphasis on the quality of their offerings, hence they try to create the best possible combinations, respecting the characteristics of both the products in the collaboration (e.g. preferred temperature and tastes) and their meals (Delivery Valley, n.d.). This means that the brands' product is not only being promoted, but also enriched by thoughtful combinations. Another important strength of the kitchen media project is the fact that brands can advertise their products giving away samples, as free gifts for those ordering, or informing customers of their own sales promotion. Brands could also take advantage of Delivery Valley's marketing resources for the creation of branded packaging to enhance their customer experience (Delivery Valley, n.d.). Delivery Valley has acknowledged the importance of communicating brand meanings through packaging and has been strongly investing for all their own brands in bold and confident packaging designs. They think that the packaging should be an advertising media and a communication channel, it should convey meanings while ensuring the best customer experience possible (Delivery Valley, n.d.). Lastly, Delivery Valley make available for the brands interested in the kitchen media project their own social media profiles (Delivery Valley, n.d.). The dark kitchen is willing to include these collaborations in their official social media channels, creating specific images compatible with the brand in order to add value to the collaboration with social media as well. On top of that, when the collaboration between the brand and Delivery Valley is settled, Delivery Valley commits on helping the brands creating fruitful marketing campaigns, whether they consist in influencer marketing, PR, social media or traditional advertising (Delivery Valley, n.d.).

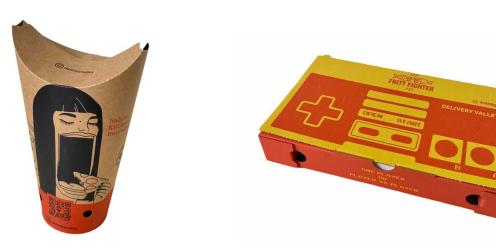
Several cases can be brought as examples of collaborations born in the context of the kitchen media project. One of the first collaborations of this type was with Santa Margherita, a popular venetian winery, with which Delivery Valley created 3 limited edition pizzas to be sold paired with a 0,3751 bottle of Valdobbiadene Prosecco Superiore DOCG Brut Santa Margherita at the perfect temperature (Delivery Valley, n.d.). One of the pizzas is even named "La (Santa) Margherita" to reinforce the idea of the collaboration with the brand. Other collaborations and special combos are, for instance, Delivery Valley's ribs with Tenuta Sassoregale, another winery, or with Consorzio Olio DOP Chianti Classico, an oil company that with Delivery Valley has decided to offer an historical Tuscan recipe, i.e. "fagioli all'uccelletto", made with the brand's Olio DOP Chianti Classico (Delivery Valley, n.d.).

In order to better understand how the testimony of Delivery Valley's success can be useful for the present study, I reckon that it's important to extract from Delivery Valley's activities the most important marketing suggestions. An undeniable strength of the business is its intense focus on the customer experience. All initiatives revolve around the core idea that the customer should be the key stakeholder and the primary focus for the organization. This view is commonly associated to the so-called "Customer-dominant logic", which posits that the provider achieves the goal of attaining a competitive advantage "by identifying the customer logic, creating suitable business models and offerings, engaging in activities that will ensure value-in-use for

the provider and creating superior value-in-use for the customer" (Heinonen K. and Strandvik T., 2015). Delivery Valley shows this focus on customers by trying to provide them with the best customer experience on- and offline, by developing combinations of foods that are trendy, tasty, and innovative, by engaging in attractive social media campaigns or by continuously researching the optimal way to serve their products. The owners have indeed revealed that before launching a new product, they test how the food is received after the process of delivery and if it passes their strict scrutiny then the product can eventually take off (Moncalero N., 2020). For example, they decided to redesign the shape of their pizza so that the mozzarella would have not dripped on the cardboard box when delivered at customers' home (Moncalero N., 2020). This shows that every single detail of the service that they provide is tested and thoroughly analyzed with the ultimate goal of providing customers the best possible experience with the brand.

Another fundamental element of Delivery Valley's success is the fact that it's incredibly marketing oriented. As mentioned before, they put a lot of emphasis on the packaging design, not only to protect and preserve the food inside, but also as a marketing communication channel. Their designs are bold and confident, extremely creative and definitely unique (*Fig.5*). Marketing for Delivery Valley has substituted the work of the maître: it allows them to communicate and create a relationship with the customers, which is extremely important in a restaurant that doesn't have a physical space. This is the reason why they also engage in intense social media marketing: each brand has its own profile and all of them are very active. Moreover, food photo-sharing is greatly suggested and user-generated contents are all over their social media channels. As far as other kinds of marketing tools concern, they can also count on the owners' food blogging qualities and they also decided to showcase their brand through branded vans and colorful locations with open kitchens.

Fig. 5 Some of Delivery Valley's unique packaging designs



Source: Delivery Valley, n.d.

Lastly, another important strong point of Delivery Valley is their networking. Being involved in partnerships with other brands allow the dark kitchen to create a collaborative network with other players in the market, as well as to display an open-minded corporate culture. Furthermore, they have always been very careful with

their relationship with O2O food delivery platforms' couriers: they consider them as their waiters, and they try to ensure the best possible experience for them as well (Montagnoli L., 2021). This is because Delivery Valley view them not only as relevant stakeholders, but also as an inextricable aspect for the accomplishment of their service. In the interview for Huffington Post, the owners stated that Delivery Valley strongly commits on improving their relationship with food delivery drivers, minimizing their waiting time to a maximum of three minutes (Moncalero N., 2020). Food delivery couriers, as any other stakeholder in the market, can indeed significantly influence the performance of the business and thus likewise necessitate of the right amount of attention and care.

#### 1.5 Future destinations of the phenomena

Among the many downsides associated to the advent of the Covid-19 pandemic, it is clear that one important element has greatly benefitted from its arrival, and it is indeed the digitalization of our daily activities. Consumers nowadays have developed new digital consumption habits, initially forced by the circumstances of the pandemic, that though are going to stick also in the long run (Deloitte, 2020a). For instance, Italians during the lockdown has incremented the frequency of online purchases, online banking activities and online entertainment (e.g. film in streaming or podcast), and 8 out of 10 have admitted that are willing to continue such activities online with the same frequency even after the Covid-19 restrictions (Deloitte, 2020a). This data allow us to better understand the range of the phenomenon of digitalization, which have affected many different aspects of our lives. Most of our consumption activities involve in some ways the digital world, whether it is the initial awareness phase or the moment we take action and purchase. Not to mention that also most of our conversations and social exchanges do now happen predominantly online (Bouvier E., 2018; Deloitte, 2020a).

In such context, firms have understood how disruptive this phenomenon is and have started to make changes accordingly. As reported by Deloitte Digital's survey that gather the opinions of 250 CMO of many different industries, the key takeaway is that the new brand experience, after the Covid-19 pandemic, will comprehend an evolution of all aspects of the organization, from its relationship with consumers to the business models it chooses to possess (Deloitte, 2020c). Consumers and design innovation will be two fundamental aspects of the new brand experience: bettering the communication with the target audience by exploiting traditional, social and digital channels will be top priority for most organizations in the future, as well as being able to provide always new and innovative solutions of products and services by personalizing the offerings (Deloitte, 2020c). Consumers' expectations of brands' values and undertakings will be higher than ever, and firms will have to find the right balance between the immersive and personalized experience given by online channels and the offline human touch, which still holds great relevance (Deloitte, 2020c). Data-driven creativity, flexibility, fast reactions and performance marketing will be top of mind for marketers, especially for those in "traditional sectors" (Deloitte, 2020c).

In the food service industry similar dynamics have started to come into place as well (Deloitte, 2020b). Some of the behaviors that consumers developed during the lockdown will last longer than others and thus could greatly impact on consumers' food consumption habits. For example, individuals were found to be more likely to stick with the habit of working from home or in general of spending more time at home (*Fig. 6*). This particular phenomenon will influence eating out occasions during the day and those connected to the work environment, such as lunch and happy hour (Deloitte, 2020b; Morgan Stanley, 2020). Therefore, the "homebody mentality", together with the intense economic crisis that many Italians are struggling with, are going to impact both consumers' lifestyle and their food consumption demand (Deloitte, 2020b).

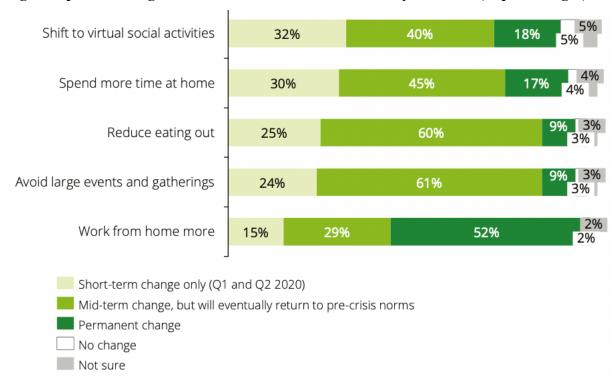


Fig. 6 Expected changes to consumer social and community behavior (in percentages)

Source: Deloitte, 2020b

Knowing that the impacts on the food industry value chain will most likely persist both in the short and long term, "the need of re-thinking business models and chasing innovation" becomes of utmost importance (Deloitte, 2020b). Food and beverage producers, which were affected due to the closing of restaurants by the subsequent collapse of business volume and loss of key touchpoints for product discovery and experience, will have to focus more on the final consumer, targeting it for instance with delivery solutions or with successful partnerships like in Delivery Valley's kitchen media project (Deloitte, 2020b). This consumer-focused business scenario would ensure suppliers greater flexibility and also a deeper knowledge of the consumer. The potentialities of digital and social channels too would represent a perfect mean to get closer to such mission (Deloitte, 2020b).

Continuing along the food industry value chain, it's important to understand what restaurants can do to fight back against the pandemic restrictions. Apart from the already mentioned solution of entering in the food delivery market, restaurants can take advantage of other options as well. According to Deloitte's food service report (2020b), restaurant operators could redesign their menu items by including for example meal kits or "chilled prepared meals" so as to be able to sell through retail environments. This would go along with a business model transformation for the purpose of getting closer to new consumers' needs, as well as with the development of win-win collaborations (Deloitte, 2020b). Considering the novel circumstances that characterize the digital consumer, restaurants are expected also to improve brand communications and shorten the distance with the final customer online. Engaging in social media marketing and leveraging UGCs, like food photo-sharing contents, could definitely help these service providers to create a stronger image, strengthen their relationships with customers and take advantage of efficient free marketing tools. A personalized and targeted communication, delivered through effective channels, has also been found to enhance dining frequency and customer loyalty (Deloitte, 2020d). What is important then is to find new revenue streams, taking the risk of entering in new channels (Deloitte, 2020b), covering new target segments, like what happens for most of the restaurants taking part in the Deliveroo's Virtual Brands project, engaging in new collaborative partnerships, or settling new marketing strategies.

But the question that is increasingly coming to service providers' minds is: will food delivery survive after the Covid-19 outbreak? Many authors are convinced that it will (Becker S., et al., 2020; Deliveroo, 2020b; Deloitte, 2020d; Garcia-Escudero R., et al., 2020; Morgan Stanley, 2020).

Even though as of now it's extremely hard to predict when the Covid-19 pandemic will definitely end, organizations are trying to clear up their vision of the future and are attempting to understand what they can do next. The changes in consumers' consumption and social habits and in their relationship with the digital world are predicted to last longer than expected, since the convenience of the new practices have exceeded the expectations of consumers (Deloitte, 2020d). The global growth of online shopping and e-commerce technologies offers a reliable testimony of the importance of the digital side of businesses and of the growing consumers' interest toward simplifying their day-to-day activities (Garcia-Escudero R., et al., 2020). It is not surprising, therefore, that convenience has been by far the most cited reason for patronizing food delivery (Deloitte, 2020d). The convenience of O2O food delivery is not restricted to the fact that it permits to outsource meal preparation from restaurants, yet it also comprises all those user-friendly and frictionless interactions with the brand, characteristic of the success of the e-commerce technologies (including for example online payments and delivery tracking), that create the best and most tailored customer experience possible. According to Deloitte's report (2020d) "convenience is the main attribute consumers want from restaurants. Digital is the way they want to receive that convenience—and their food". This assumption is confirmed by Morgan Stanley's article (2020), which posits that the digital transformation in the food industry that was projected to take years has happened in just months and is expected to keep growing even more. The food

delivery penetration share appears to have moved forward 2 to 3 years due to Covid-19, showing how big the phenomenon is now and will be in the future too (Morgan Stanley, 2020) (*Fig. 7*).

25% 20% 18% 16% 15% 15% 14% 13% 10% 5% 0% 2020 2021 2022 2023 2024 2025 2019 — Prior Current

Fig. 7 Online Food Delivery Penetration Share of Total Addressable Market

Source: Morgan Stanley, 2020

The huge shift from dining-in to home delivery options is even leading many restaurants to have second thoughts about their physical infrastructures. Restaurant owners are starting to rethink their physical store layout: much of the attention is now addressed to the digital and "off-premises orders" and thus the kitchens, as well as the takeout counters more than the dining area now necessitate greater share of space (Deloitte, 2020d; Morgan Stanley, 2020). Hence, "real-estate footprints may shrink" after the pandemic, boosting the to-go business (Morgan Stanley, 2020). Big dining areas and multiple locations would be substituted by curbside pickup windows, food delivery options, and drive-through lanes (Becker, S., et al., 2020; Deloitte, 2020d; Morgan Stanley, 2020). Delivery Valley too has experimented with such practices introducing a curbside pickup window that serve both food delivery couriers and people ordering a takeout meal. Unused dining space can also become available space for kitchen enlargement and creation of parallel preparation lines (Deloitte, 2020d).

However, the digital won't ever fully substitute the physicality of the food service, yet the idea is that restaurants' traditional tools, like quality, first-person service and immersive experience, should be updated and enriched with new mediums that though convey a similar unique and engaging experience. Customers are seeking for consistent and pervasive experiences across all touchpoints with the brand, whether they are online or offline. Hence, restaurants should provide them with one familiar seamless experience that can function in the physical store as well as for the delivery service, taking advantage of both physical and digital tools to ensure the best customer experience at any given touchpoint (Deloitte, 2020d). Therefore, as customers

interact with restaurants in new ways, it becomes important for these service providers to "come back to customers with an experience that's truly personalized" (Deloitte, 2020d). Analytics extracted from the digital channels are useful for this purpose to get the measure of important elements of the restaurant business, such as sales performance and customers' preferences, as well as to come up with a clear and informed view "of each customer no matter which ordering method they use" (Deloitte, 2020d). Delivery Valley again can be brought as a successful example of an organization that focus on providing a tailored customer experience, that is perfectly balanced between the physical and the digital. Although they do not offer a full-on physical dining experience because they are a dark kitchen, they are indeed exploring the opportunities of offering some sort of physical service along with their delivery offerings. They have set up a little outside dehors for those people enjoying takeout meals with the goal of allowing them to eat the food nearby, though not losing their dark kitchen identity since the food is still served inside their delivery packaging, as if it was meant to be delivered at somebody's home (Delivery Valley, n.d.). Their objective is to exploit the strengths of both solutions, efficiently supporting the customer along every step of its path to purchase. Moreover, they strongly rely on their digital tools to understand new possible appreciated recipes and on providing a seamless and efficient experience also for O2O food delivery platforms' couriers, minimizing their waiting time to a maximum of 3 minutes.

Another important aspect that will shape the restaurants of the future is that individuals after the pandemic are going to show greater concerns over hygiene and safety. In the long term this would even reinforce the idea that contactless delivery and pickups may become the norm (Becker S., et al., 2020). Sanitization and cleanliness will be fundamental for physical restaurants, and for the delivery service this aspect will grow in importance too. In fact, all kinds of service providers' actions in signaling safety across all the touchpoints with their customers has been found to mold customers' impressions and trust in the brand (Deloitte, 2020d). Wiping down the table before the dining experience or providing a secure packaging that prevents the food from leaking are elements that will make a difference in the future of the food service industry.

What should be then the next course of action for restaurant owners and food service operators in the O2O food delivery industry? Gathering all the information that were exposed before, it emerges that the transformations in the food industry were already taking place before the pandemic, and they were only accelerated by the outbreak of Covid-19. Hence, the fast changes in the food consumption demand and supply didn't catch all service providers unprepared, yet many others had to react as quickly as possible to survive. The testimonies of those successful brands that managed not only to be prepared in the tumultuous conditions of the pandemic, but to also benefit from those circumstances are useful to delineate a desired direction.

The food delivery market was overwhelmed with restaurants in just few months, leading to a competition even more severe than normal. And what has emerged in the previous discussions is that to win the battle for differentiation and market share, the new frontier is the customer experience. Restaurant owners and food service operators should focus on providing customers with an experience that is truly personalized, something that is built precisely to satisfy their needs. This means that they should devote their energies in creating

something unique, that both differentiates the brand among the competitors and that perfectly fulfill all customers' desires. The goal of connecting with consumers creating the best brand experience possible also allows organizations to become more "human", mirroring and supporting "the values of those they are built to serve" (Deloitte, 2021). The expression of meanings, narratives and individuals' self-identity, as it will be explained later in the present study, are critical elements in the relationship between brands and their target audience, and in particular between the brand's packaging and consumers. Packaging and brands become vehicles to communicate a desired image of ourselves to others by means of their design. Thus, the creation of a tailored experience in the context of O2O food delivery, which could comprehend the development of a unique and out of the ordinary packaging, will be fundamental for restaurants to have success in this industry in the future.

Another important aspect that players in the food delivery industry need to take into consideration is participation (Deloitte, 2021). In the ever-changing dimensions of Covid-19 that have forced organizations to modify their business directions on several things, many of these service providers have decided that it's indeed the way the brand engage with customers that needs to change. According to Deloitte's Global Marketing Trends report (2021), 64% of the 405 executives interviewed have pinpointed customer engagement and participation as their main strategy to better respond to the pandemic. Customer participation in brandrelated online activities is a win-win relationship: "customers participate as brand ambassadors, influencers, collaborators, and innovators" and, as such, marketers can take advantage of them mostly at a limited cost (Deloitte, 2021). Pursuing a customer engagement strategy that aims at exploiting participation and co-creation activities, allows organizations to differentiate themselves from the competition and to maximize the mutual benefits for customers and brands (Deloitte, 2021). In the food service industry, most of the participation happens on social media via brand-related UGCs and food photo-sharing. The intense proliferation of online food contents can benefit service providers in the industry as it represents a free and effective marketing tool. Exploiting the resources of this kind of activities will be fundamental for restaurants in the future, considering that people are not showing any sign of giving up on the food photo-sharing phenomenon. During the Covid-19 pandemic "mealtime rituals have become more meaningful" and they have taken over social media too (Waitrose & Partners, 2021). According to Waitrose & Partners (2021), in UK mentions of food on social media are 25% more compared to 2019, and I reckon that this could grow even further: food has brought us happiness during such harsh times and the habit of creating contents about it will stuck. Individuals, in fact, love talking about food and they enjoy doing it visually through the screen of their phone: it's not surprising, in fact, that #food is on the top 20 most famous hashtags on Instagram with 450 millions post. It will be restaurants job though to take advantage of such phenomenon and to reap the benefits of customers' food photo-sharing in their favor.

#### **CHAPTER 2: LITERATURE REVIEW**

#### 2.1 Online-to-Offline food delivery

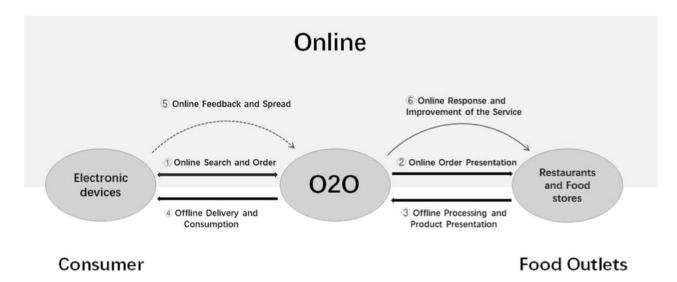
The rapid growth and development of online technology have eased the advent of many different types of digital activities to the benefit of organizations. Especially with the booming of smartphones and the subsequent adoption of mobile apps, the relationship between brands and their target audience have gained new fundamental digital touchpoints (Kapoor A. P., & Vij M., 2018; Zhao Y., & Bacao F., 2020). The progresses in the electronic commerce technology have facilitated the introduction of a new e-commerce model that combines offline consumption with the online environment (Kang J. W., & Namkung Y., 2019). The Online-to-Offline (O2O) technology consists in the "consumption of products or services from brick-and-mortar businesses through online purchase" (Yang F. X. et al., 2021).

The first to introduce this concept was Alex Rampell, CEO and founder of TrialPay, in August 2010. At the time, he explained the phenomenon as a tool that enabled to "find consumers online and bring them into real-world stores" (Rampell A., 2010), taking as example the e-commerce marketplace Groupon. However, throughout the years, the term has evolved and now comprise anything that involves brick-and-mortar stores and e-commerce (Tsai T. M., et al., 2015). Compared to traditional e-commerce, though, O2O requires much more logistic efficiency due to its nature: the supply side needs to be extremely quick in covering the huge demand volume, as the lead time (i.e. the time between the online order and the delivery) is expected most of the time to be within hours (Dai H., et al., 2017). Moreover, the demand that suppliers are asked to cover includes both the physical and the digital one, increasing the difficulty of handling the logistics.

Among the many industries that took advantage of this technology, the food industry represents one of the most significant examples of successful O2O commerce. In fact, O2O technology can be particularly useful for time-bound and perishable services (i.e. restaurants, accommodations and taxi), thanks to its ability to overcome issues related to fluctuating demand (Dai H., et al., 2017; Roh M., & Park, K., 2019). Along with O2O technology, the food industry has welcomed two other relevant e-commerce modes: B2C and New Retail. B2C food shopping consists in the online purchase and payment of food products/grocery from supermarkets, businesses and online retailers through B2C e-commerce platforms (Ben, L., 2020). Instead, New Retail represents a "traditional offline retail store with more information technologies such as big data, cloud computing, the internet of things, mobile payment and artificial intelligence" (e.g. Amazon Go) (Wang, O., et al., 2020). Although both are relevant in the assessment of the relationship between the food industry and the digital world, they will not be analyzed in the present study.

According to Wang O. et al. (2020) in China there are two types of O2O food platforms: O2O delivery platforms and O2O in-store platforms. The first ones essentially represent those food delivery platforms that allows customers to order their meal online and get it delivered to their home (*Fig.8*).

Fig. 8 Online-to-offline food delivery system



Offline

Source: Maimaiti, M. et al., 2018

On the contrary, the second ones allow customers to order services online (e.g. meals and restaurant seats) while aiming to consume them offline at the store. For the purpose of this study I will take into consideration only O2O delivery platforms, as O2O in-store platforms are still not widespread in Italy.

Completely different from the practice of telephone ordering, in which loyal customers call restaurants for their order and the latter takes the full responsibility for the outcome quality and its delivery, O2O food delivery most of the times welcomes a third party, equipped with a digital platform and delivery staff, that manages hundreds of orders for just as much registered restaurants (Maimaiti, M. et al., 2018). Food delivery apps and platforms, like Deliveroo, Glovo, Cosaporto, Too Good to Go, Just Eat and Uber Eats, have boomed in recent years all over the world as they perfectly contribute to the newly formed food consumption demand. The literature has highlighted two main motives that have led to this success: business developments and socio-demographic transformations (Ana, I. D. A., et al., 2007; Bowers, D. 2000; Cho, M. et al., 2019; Kang, J. W., & Namkung, Y., 2019; Maimaiti, M. et al., 2018; Roh, M., & Park, K., 2019, Tsai, T. M., et al., 2015). An accelerated urbanization and the ubiquity of smartphones have pushed organizations of this industry to embrace the food delivery technology, which throughout the years have rewarded firms with a gigantic increase in sales revenue and decrease in food waste (Manuelli M.T., 2019), and customers with an extension of the food environment range up to 10 km (Maimaiti, M. et al., 2018). What in the past was prohibitive or simply too far, thanks to O2O food delivery becomes within reach. Considering also the need for businesses to provide more attractive customer journeys as a key contributor of a competitive advantage (Witell, L., et al., 2020), offering an integrated consuming experience represents one of the main motives that lies in the huge success of O2O commerce (Tsai, T. M., et al., 2015). Whenever possible and feasible, firms aim at

providing omni-channel solutions to their customers, combining both the advantages of the digital and the physical (Rigby, D., 2011). Being able to access broad and rich product information, compare reviews and eventually pay online, while having an enhanced offline customer experience with quick and convenient services represents the core value of O2O commerce for customers.

On top of that, socio-demographic changes have eased the adoption of O2O food technology: longer working hours, the rise of single-person households and finally the increase of women's workforce participation are the foundations of O2O food delivery success. People that are constantly under time pressure because of their job are more likely to enjoy the convenience of not cooking (Ana I. D. A., et al., 2007), as well as appreciate the fact that they can have a diversified dietary intake exerting limited effort. Moreover, single-person households, which are increasingly common, have been found to strongly appreciate the opportunity to outsource meals from restaurants (Cho M. et al., 2019; Roh M., & Park, K., 2019). However, it was found that couples (married or not), compared to singles, "have more frequent consumption patterns and/or more positive attitudes towards meal consumption with O2O delivery", since they are more likely to eat together more often (Wang O., et al., 2020). On the other hand, moral obligation in preparing home-made food and resistance in indulging to convenience-seeking tendencies is higher for married people (Roh M., & Park K., 2019). Another significant aspect that has fueled the success of O2O food delivery is the increasing involvement of women in the work environment. With the rise of women's educational level and the subsequent increase in the number of full-time female workers, the time spent on meal preparation as well as the actual time spent by women at home has enormously dropped (Bowers D., 2000; Kang J. W., & Namkung, Y., 2019). The convenience of food delivery has found fertile ground in such audience, contributing to O2O success. However, according to Wang O. et al. (2020) male consumers still have more positive attitudes towards O2O food delivery platforms than the female counterpart.

Having considered this, it's important to mention also that the practice of food delivery reached an unprecedented top in the year 2020 as a consequence of the outbreak of Covid-19 pandemic as well. In order to lower the risk of transmission, public health authorities, following the World Health Organization (WHO) guidelines, stressed the importance for the public to avoid contacts and embrace social distancing (WHO, 2020a). In such context, the reaction of the food industry was almost totally directed towards the implementation of food delivery, in order to continue satisfying the demand for food consumption while taking care of customers' safety (Zhao, Y., & Bacao, F., 2020). In other words, for many restaurants food delivery was the only mean to survive. For customers, whose food consumption habits has changed likewise, O2O food delivery has represented during the Covid-19 outbreak the only chance to get a grasp of the feeling of eating out (Manuelli M. T., 2021). Considering also that the WHO has denied the risk of Covid-19 transmission through food packaging (WHO, 2020b), consumers have considered O2O food delivery one of the most convenient and safest way to treat themself.

What we know from the current literature on O2O food delivery, which is limited and mostly concentrated on the Asian market, is that consumers' perceived value, and the subsequent intention to use it, depends on many factors. As mentioned above, perceived convenience for saving time (e.g. for not cooking) represents one critical element that drives O2O food delivery usage (Cho, M. et al., 2019; Roh, M., & Park, K., 2019; Wang, O., et al., 2020; Yeo, V. C. S., et al., 2017). For some people, there is nothing more convenient than eating a well-prepared meal without actually having to cook it. Price saving is another important dimension in O2O technology: customers can compare prices, meals and restaurants between different suppliers and choose accordingly (Yeo, V. C. S., et al., 2017). Regarding this, research has shown that single-person households, compared to multi-person households, place more importance in food variety and price (Cho, M. et al., 2019). This is confirmed by the fact that single-person households are usually students and white-collar workers (Roh, M., & Park, K., 2019). Social influence, which is explained as the degree of willingness to use O2O food delivery gained from others' encouragement, was considered an antecedent of the intention to engage in O2O commerce as well (Zhao Y., & Bacao F., 2020). Also the experience on the app and its attributes (e.g. design, trustworthiness and ease of navigation) were found to greatly impact perceived value and intention to use (Cho M. et al., 2019; Kapoor A. P., & Vij M., 2018). However, the intention to use O2O technology is hindered by the moral burden of indulging to convenience food over preparing home-made food, as well as perceived ease of use and usefulness of the technology (Kang J. W., & Namkung Y., 2019; Roh M., & Park K., 2019).

#### 2.2 Packaging design

The extant literature has enormously underlined the importance of packaging as a powerful communication tool between the brand and its target audience (Ambrose G., & Harris, P., 2017; Khuong, M. N., & Hong, T. M., 2016; Rundh, B., 2009; Wang, E. S., 2013). Packaging can attract consumers' attention (Orquin, J. L. et al., 2020), influence consumers' perceived food product quality and brand preference (Wang, E. S., 2013), evoke emotional responses (Candi, M. et al., 2017; Liao, L. X. et al., 2015), impact consumer brand awareness and repurchase intention (Khuong, M. N., & Hong, T. M., 2016), and originate positive word of mouth (Kumar, M., & Garg, N., 2010).

Packaging fundamental role in communicating brand meaning and in affecting consumers' behavioral intentions works extremely good for low-involvement products, like food (Underwood, R. L., 2003; Wang, E. S., 2013). Low-involvement goods, as opposed to high-involvement products, are characterized by limited decision-making efforts, which depends on the customer's personality, perceived risk and on the characteristics of the goods. Fast Moving Consumer Goods (FMCG), which are non-durables low-cost and quickly sold products, are commonly regarded as examples of goods that don't need high involvement in their path to purchase. From a retail marketing perspective, products with low value and high volume, like food and most FMCG, strongly depends on visual features that could attract customers' attention while at the point of purchase (Wang, E. S., 2013). Thus, visual differentiation for such products becomes critical in order to stand out from an increasing shelf competition (Ambrose G., & Harris, P., 2017; Underwood, R. L., 2003; Wang, E. S., 2013). The object of this research is actually to assess whether the same rationale of packaging differentiation could be applied to the O2O food delivery industry as well, which now enjoys growing

competitions among players. Even though the two contexts are extremely different many reasons suggests that visual differentiation might be fundamental in O2O food packaging as well. Considering also that, similarly to what happens for traditional food products in a retail store, food delivery packaging represents the first physical encounter with the brand prior to the actual experience of the meal, the communicating purpose of packaging seems to bear enormous importance.

According to Underwood, R. L. (2003) packaging design consists of two components, graphics and structure. The graphical component includes the packaging colors, typeface, logos, illustrations and photography, while the structural elements comprise the shape, size, materials and ergonomics (Ambrose G., & Harris P., 2017; Underwood, R. L., 2003). Graphics are the most effective packaging elements to generate emotional value (Noble C. H., & Kumar M., 2008). Visual elements that appear on the surface of the packaging are able to communicate and express value to customers without the need to interact with them. The ability to convey emotional appeals is of utmost importance for brands, as they appear to reach the consumer on a more holistic and personal level (Noble C. H., & Kumar M., 2008). Colours, for example, can convey a wide range of different meanings and serve as a cue for other important attributes. For instance, the colour green could refer to mint flavouring, as well as express environmental-friendly and ecological characteristics (Ambrose G., & Harris P., 2017). The growing concerns about the environment and public health, especially in the food industry which has been under the spotlight for food waste, CO<sub>2</sub> emissions and unhealthy choices, has led to more attention towards the graphics and material of the product packaging. As a matter of fact, great emphasis has been placed on sustainable packaging, which can be easily disposed and recycled, and nutrition labels, used to provide useful product information (Ambrose G., & Harris P., 2017).

Besides the above-mentioned function of being a point of difference from competitive brands, packaging holds other important purposes, such as persuasion, brand personality, experience and protection (Ambrose G., & Harris P., 2017; Underwood, R. L., 2003). One key facet of packaging design is that it allows brands to persuade consumers and engage them towards a buying decision, leading them to believe that the product is the best among the competition. This can be done thanks to logical proof or, instead, through emotional appeals (Ambrose G., & Harris P., 2017). Karnal N. et al. (2016) posited that, for instance, the weight of the typeface (i.e. the thickness of a font's stroke) can trigger different healthiness perceptions: light ones express the idea of a healthier product, while bold ones communicate the concept of fat. Emotional appeals are critical in communicating the brand personality as well: emotional bonds with consumers can be created thanks to attractive, but coherent, packaging designs (Ambrose G., & Harris P., 2017).

Then, another important packaging function is its ability to engage the audience into an interactive experience. According to Ambrose G., & Harris P. (2017), "experience focuses on a person's physical interaction with a package, its ease of use and its tactile qualities, and how this adds to the story about a product". The experiential aspect of a product packaging deals with what Noble C. H. & Kumar M. (2008) have defined as "kinesthetic design". The latter explains all those attributes of a product that takes part in the physical interaction with the consumer, starting from the tactile features all the way to its configuration. Most

frequently, these aspects have been gathered into the term "ergonomics", which essentially refers to the science of designing packaging to be more easily handled, more comfortable and less likely to incur in damage (Ambrose G., & Harris P., 2017). Following a kinesthetic strategy in designing a product can potentially contribute to increase both functional differentiation and emotional value (Noble C. H., & Kumar M., 2008), hence has received increasing attention from organizations.

Lastly, packaging serve as protection of the product inside it. This is probably the most intuitive yet essential function that packaging has, since it prevents the product from getting damaged, contaminated or modified. In the context of O2O food delivery, food safety and hygiene and thus the concept of solid and leak-proof packaging has always been a top priority for service providers (Maimaiti, M. et al., 2018). Since what they offer is, almost always, an already cooked meal, the precautions about packaging's solidness rise: temperature control, leak-proof packaging, spill-free containers and solid wrapping are needed (Yang F. X., et al., 2021). This is particularly important for restaurants that engage in O2O commerce because, event tough they are not involved in the transportation and delivery of the orders, in the eyes of the customers they are still considered liable for what they receive. Furthermore, hygiene and cleanliness, especially during the Covid-19 pandemic, has been judged as top priorities by O2O food delivery customers (Yang F. X., et al., 2021). Focusing on improving the functionality, safety, reliability and robustness of a packaging means engaging in "utilitarian design" (Noble C. H., & Kumar M., 2008). The latter aims at giving products a competitive advantage and functional differentiation by simply making it work better than the competition (Noble C. H., & Kumar M., 2008). Utilitarian design mostly involves a transformation of the structural elements of the packaging, such as the shape, size, materials and ergonomics.

However, a balance between novelty of design and familiarity is strongly advised (Noble C. H., & Kumar M., 2008). In fact, the literature has presented very different conclusions regarding the tradeoff between novelty and typicality. Prototypicality has been considered positive for product designs, as it reduces the likelihood of risks and uncertainties (Veryzer Jr, R. W., & Hutchinson, J. W., 1998), especially at low exposure levels (Landwehr J. R., et al., 2013). On the other hand, novelty of design has been regarded as an "efficiency gain for the consumer" (Bianchi M., 1998), especially with repeated exposure (Landwehr J. R., et al., 2013). Following the MAYA (Most Advanced Yet Acceptable) principle by Loewy (1951), which explains that a balanced mix of typicality and novelty is the most commercially viable way for organizations, it's reasonable to believe that the optimal choice for brands would be balancing the two characteristics (Mulder-Nijkamp, M., 2020; Noble C. H., & Kumar M., 2008). While simplistic designs may be easier to recognize and approachable but less engaging, atypical designs may appear as more interesting and appealing, but more cognitively demanding (Noble C. H., & Kumar M., 2010). The goal is to successfully balance customers' expectations of how a product packaging should look like (and perform) and the need to generate creative interest (Noble C. H., & Kumar M., 2008; Noble C. H., & Kumar M., 2010; Underwood, R. L., 2003).

The idea behind exerting effort in creating a unique packaging design is very simple: "being different from the competition or from consumer expectations is desirable" (Noble C. H., & Kumar M., 2008). Infusing

novelty into a product allows the brand to stand out, convey stronger emotional appeals or provide a better performance (Ambrose G., & Harris P., 2017; Noble C. H., & Kumar M., 2008; Underwood, R. L., 2003). When the competition is extremely high, anything that generates a competitive advantage for the brand is of undeniable importance, thus this is why "unique packaging design" was introduced as the independent variable of this research. As mentioned above, the competition in the O2O food delivery industry has been growing exponentially, giving restaurants a hard time in sticking out and be preferred. On top of that, due to the Covid-19 pandemic, restaurants have lost almost all of their traditional physical touchpoints with their audience, resulting in the loss of critical elements of brand communication. The only thing that is left for them in this regard is indeed food delivery packaging (Manuelli M. T., 2021). Considering also that packaging, as opposed to most marketing communication channels, has a tangible form, the lived and physical experience that rise between the brand and the consumer becomes extremely important (Underwood, R. L., 2003). The fact that the meaning communicated through the packaging can not only be mediated through a screen or exposed for just few seconds but can also be intrinsically lived, allows the brand to strengthen the relationship with the consumer even after the purchasing of the product. While at customer's home, "the package continually communicates an identity via the public or private meaning elicited by its design" (Underwood, R. L., 2003), thus delivering value more consistently than other forms of communication.

In addition, the customer journey in O2O commerce is composed of two essential steps: the online order and the delivery. Even though the lead time (i.e. the time between the online order and the delivery) in O2O food delivery is generally within hours, between the two stages customers build up anticipation and expectations of what they will receive (Moreau C. P., 2020). Hence, the layers that separate the customer from experiencing the product itself add up to the components that create suspense and excitement, but also brand identity and positioning (Moreau C. P., 2020). Being welcomed with a standardized, basic and unceremonious packaging can wreck customers' expectations of the brand, as well as ruin their dining experience. Considering also that the experience of O2O food delivery unboxing happens after the customer has already purchased the product, any effort exerted in packaging design is more likely to appear as a thoughtful gesture from the brand and less as a promotional persuasion attempt (Moreau C. P., 2020).

It is widely known that the consumer experience in a physical restaurant is greatly influenced by many elements of the environment's design (Apaolaza V. et al., 2020). The exterior finishes as well as the ambience elements of the interior add up to the components that impacts on the perceived quality and value of the experience inside a restaurant (Apaolaza V. et al., 2020). Visual servicescapes, which are the "physical setting where service exchange or transactions occur" (Lin I. Y., 2016), have been found to positively relate to the perceptual experience of the customer, its emotions (pleasure and arousal) and also its willingness to pay more (Lin I. Y., 2016). This happens because the physical environment is able to express pleasurable emotions, convey comfortability and communicate reliability that customers then transform into positive perceived service quality and revisit intention (Kim W. G., & Moon Y. J., 2009; Wakefield K. L., & Blodgett J. G., 1994; Wakefield K. L., & Blodgett J. G., 1999). Tangible and intangible elements of a location can thus

influence the customer experience, giving customers the motivation to come back or eventually discouraging them from repurchasing.

The new circumstances of food consumption have made me reflect on what has now substituted the traditional atmospheric factors of a restaurant, which is indeed its food delivery packaging. With the advent of Covid-19 pandemic in Italy for a long period of time restaurants were completely closed to the public and they were allowed to offer food delivery and takeaway food only. In such context, as I explained before, the only possible physical interactions between customers and brands were essentially limited to food packaging. Hence, the latter has acquired, due to the situation, a fundamental role in expressing what the brand is and how it reaches its audience. According to Yang F. X. et al. (2021) packaging "functions as a new environmental cue to exhibit the brand value and superb quality of the restaurant", thus visually conveying the brand characteristics and personality. Among the many factors that Wakefield K. L., & Blodgett J. G. (1994) pointed out as important for the layout of a service setting, many can be transferred to food packaging requirements as well. Architectural and interior design, colours, decorations, signs and symbols can all be associated to the graphical and structural components of a packaging, as well as cleanliness can be related to the need for packaging to be spill-proof.

After having understood why packaging is critical for brands and their communication, it's important to assess the differences between a standard food delivery packaging and a unique, atypical one. Starting from the premise that all O2O food delivery packaging should be optimal protective containers that enable an effective transportation and delivery of the meal to the customer's home, they can vary enormously in their design. O2O food delivery packaging can be in the form of a bottle, can, cup, wrap, carton, tray, box, plate or bowl, made of paper, plastic, foil, aluminum, wood, Tetra Pak and cardboard (Ambrose G., & Harris P., 2017; Paine F. A., & Paine H. Y., 2012). Depending on the food's size, shape and temperature different solutions appear to be the ideal ones, leading most of the service providers that offer the same product to lean on pretty much the same kind of packaging. For example, all restaurants that sell pizza most likely rely on a squared cardboard box with a lid on top to package their meal. However, the choice to go for that particular shape, to use the cardboard, to insert designs, to add the brand logo or to choose a different color from the standard one that is given from the packaging supplier is up to the restaurant itself. Thus, for the purpose of this study, I will consider as "unique packaging design" any packaging that is clearly different from other packages in the category (e.g. atypical, innovative or out of the ordinary) regarding its structure, and/or that displays a personalized and distinctive to the brand visual appearance regarding its graphics (Mugge R., et al. 2014). As a final point, I'd like to get the measure of another important phenomenon related to packaging that with

the growth of social media has found fertile ground: the "unboxing". Frequently associated to the unwrapping of a present, the unboxing experience constitutes in the photographic documentation of the opening of a retail box, showing the content and its features (Thorsén A., 2018). The unboxing practice has forced e-retailers to not overlook the design and appearance of the packages, by keeping in mind that packaging has become an experiential happening, which contributes to the development of favourable attitudes (Ilich K. L., & Hardey

M., 2020). The literature has shown that the activity of unboxing can arouse positive emotions and evoke specific brand feelings (Kim C., et al., 2018), fuels anticipation (Youtube Insights, 2014), provide a trustworthy proof of an experience or a purchase (Ilich K. L., & Hardey M., 2020) and influence purchase intent in those watching (Kim H., 2020). The reason why this phenomenon has become so popular resides deeply in how these videos are made: most of the time, the point of view is extremely personal and displays the scene as if the viewer is the one doing the unboxing. This allows a reduction in the distance between the viewer and the object, which leads in a more engaging and closer experience for the viewer. The sense of touch, which is expressed by the subject's hand that appears on the screen, accompany the whole experience evoking sensorial pleasure (Mowlabocus, S., 2020). Here, the viewer is not only passively seeing but also vicariously feeling (Mowlabocus, S., 2020).

## 2.3 UGC and food photo-sharing

Posting photos of food online is commonly regarded as a type of brand-related user-generated content (UGC) (Atwal, G. et al., 2019). The extant literature has generated many definitions of UGC throughout the years, without actually coming up with something definitive. Kim M., & Lee M. (2017) described UGC as "any content about a brand created by a user of the brand designed to be shared with others". Additionally, this content can be created, shared and consumed individually or together with other people (Smith A. N. et al., 2012). However, the definition that I consider more complete and exhaustive is the one by Christodoulides G. et al. (2012), who defines UGC as something:

- 1. "Made available through publicly accessible transmission media such as the Internet" (Christodoulides G. et al., 2012);
- 2. "That reflects some degree of creative effort" (Christodoulides G. et al., 2012);
- 3. "Created for free outside professional routines and practices" (Christodoulides G. et al., 2012).

Regarding the last point, some explanation needs to be done. Brand-related UGC has reached a huge success largely thanks to its "perceived independence from marketers' influences" (Kim M., & Lee M., 2017). However, UGCs aren't always created and shared for free: considering the growing importance of this kind of content, many organizations have taken advantage of its features and started utilizing it for marketing purposes (Kim M., & Song D., 2018). Brands do sometimes pay people for spreading their products or services through UGC activities, engaging in the so-called "WOM marketing" (Kim M., & Lee M., 2017; Kim M., & Song D., 2018). For the purpose of this study, though, I will take into consideration only organic (i.e. free) representations of the brand-related UGC that I intend to analyze, which is indeed the food photo-sharing phenomenon.

From customers point of view, the motivation to create UGCs comes from many different sources. Christodoulides G. et al. (2012) listed four main brand-related UGC drivers for customers, which are "cocreation, empowerment, community, and self-concept". Co-creation represents the key concept in the body of research regarding the service-dominant logic (Grönroos C., & Ravald A., 2011; Grönroos C., & Voima P.,

2013; Heinonen K. and Strandvik T., 2015; Lusch R. F., & Vargo S. L., 2014; Skålén P., & Edvardsson B., 2016). The latter explains the full set of perspectives, assumptions and directions (i.e. objectives, models and methods), that guides organizations in the management of their business (Heinonen K. and Strandvik T., 2015). In particular, the service-dominant logic posits that both the supplier and the customer can create value: organizations offer customers potential value by giving them specific resources, that they realize and integrate through co-creating behaviors (Skålén P., & Edvardsson B., 2016). Thus, the interactions and exchanges between customers and service providers become extremely relevant. Slightly different is Grönroos C., & Ravald A. (2011)'s point of view: they stated that "value is not created and delivered by the supplier but emerges during usage in the customer's process of value creation". Hence, here organizations turn into value facilitator for customers' own value creation process (Grönroos C., & Ravald A., 2011; Grönroos C., & Voima P., 2013). What the service-dominant logic essentially highlight is that it's of utmost importance to keep in mind that value is created within a network and not just thanks to one actor. Customers can deliver value for the brand, either thanks to the resources that organizations offer them or through interactions in co-creating activities, like UGC. This is also fundamental in fulfilling the growing customers' need to personally shape experiences, actively collaborating with organizations throughout the whole customer journey (Christodoulides G. et al., 2012).

This concept brings us to the second main UGC driver, which is indeed empowerment. According to Wathieu et al. (2002), "the ability to shape (i.e., to expand as well as to constrain) the composition of one's choice set" represents the most important feature in understanding what customer empowerment is. Online brand-related UGCs allows customers to perceive some sort of authority and control over other people or brands, thus motivating them to get more involved in content creation (Christodoulides G. et al., 2012; Muntinga D. G., et al., 2011). Furthermore, the ability to express one's own ideas in a supporting community has been found another critical antecedent of UGC creation (Li G., et al., 2014). Allowing positive member communication, encouraging social interactions and recognizing customers' efforts, by rewarding them with positive feedbacks for their contribution to the brand, enhance positive attitudes towards the organization and lead to more UGC intention (Christodoulides G. et al., 2012; Li G., et al., 2014). Lastly, UGCs can become a vehicle for self-expression (Christodoulides G. et al., 2012) This is especially true for organic UGC, as it can serve to reinforce personal values, to communicate a specific image of oneself and to achieve recognition from peers (Muntinga D. G., et al., 2011). This concept will be analyzed more in depth in the next section.

Other authors have tried to explain what motivates UGC creation taking advantage of different communication overviews, such as the Uses and Gratification Theory (U&G) and the consumers' online brand-related activities (COBRAs). U&G theory was derived from the body of research on mass communication and media, and essentially tries to define the social and psychological reasons why users choose a media over another, based on their psychological needs (Mendes-Filho L., & Tan F. B., 2009). Hence, the U&G theory investigates what lies behind the intention to use specific media, as well as the satisfaction that users could receive doing so. According to Muntinga D. G., et al. (2011) there are six different social media use drivers: entertainment,

integration and social interaction, personal identity, information, remuneration and empowerment. Besides integration and social interaction, personal identity and empowerment which I already treated before, there are three other motives that are interesting to examine. The first thing that push people to use social media is because it's intrinsically fun. Social media were built to be entertaining tool to pass time, allowing people to escape from the ordinary and relieve stress (Muntinga D. G., et al., 2011). In addition to that, social media can be used to gain information regarding relevant events, as well as a mean to exchange opinions and seek advices, from peers or from more knowledgeable spokesperson (Muntinga D. G., et al., 2011). Then, several studies have found remuneration to be intrinsically linked to social media usage intention (Muntinga D. G., et al., 2011). People seem to be attracted by the possibility of future rewards that could await them if they create social media content. These rewards can be monetary, job-related or simply personal wishes (Muntinga D. G., et al., 2011).

Another interesting point of view that dug deeper into the topic of brand-related UGC to the so-called COBRAs. Shao G. (2009) theorized that users engage in user-generated media in three manners: by consuming, by participating, and by producing. Consuming consists in passively watching, listening, reading and downloading content without ever exerting any more effort, and therefore represents the COBRA type with the lowest level of engagement (Muntinga D. G., et al., 2011). The motivational drivers that push people in consuming UGCs are information, entertainment and remuneration (Muntinga D. G., et al., 2011; Shao G., 2009). In fact, these are broad motivational factors that are commonly shared by all social media users. On the second level, people may participate, getting involved in interactions with the media content or with other users (Shao G., 2009). Examples of participating activities include rating products, following a brand on social media, joining an online community, commenting or simply leaving a like (Muntinga D. G., et al., 2011). Here, what triggers users' contributions are the drivers of personal identity, integration and social interaction, and entertainment (Muntinga D. G., et al., 2011; Shao G., 2009). Finally, users may decide to produce content and share it across online media. For instance, they could write and publish on a blog, upload a video or photos and write online reviews. Producing represents the stage with the highest level of engagement and is driven by the need to express personal identity, gain remuneration, engage in social interaction and have fun (Muntinga D. G., et al., 2011). Food photo-sharing, which is part of the bigger universe of brand-related social media UGC, can certainly be classified as a producing COBRA type, in which users take photos or videos of their food and upload it on social media.

From a managerial point of view, the advantages of UGC are several. Since UGC is considered more honest and credible than content created by the organization itself, people were found to trust more the opinions about product information expressed by their peers (Cheong H. J., & Morrison M. A., 2008). Therefore, many service providers have started to encourage their customers to engage in such behaviors, for instance by creating specific hashtags or by making items modification in order to be more shareable (Zhu, J. et al., 2019). In such context, marketers could then think to influence these "opinion leaders" and indirectly impact those who are looking for their advice (Cheong H. J., & Morrison M. A., 2008). As I mentioned before, in fact, sponsored

UGCs are common, even though they were found to be less effective (compared to organic ones) as they induce "inferences of manipulative intent" (Kim M. & Song D. 2018). Furthermore, UGC has the ability to outline consumer brand perceptions (Smith A. N. et al., 2012), spread favorable brand attitudes (Kim M., & Lee M., 2017), increase brand equity (Christodoulides G. et al., 2012) and boost purchasing behaviours (Malthouse E. C. et al., 2016).

Among the huge amount of brand-related UGCs that has invaded the social media realm, food photography is definitely up on the top. Although food photography as a photographic genre has been in place way before the advent of the internet and social media thanks to cooking magazines and cookbooks, the real turning point can be traced back to the 1990s (Cain A., 2017). At that time commercial food photography was considered an art, as well as the main subject for many important still-life photographers (Cain A., 2017). However, it is with the rise of food blogs and social media in the early 2000s that everyone became really obsessed about food. Spence C., et al. (2016) attributed the growing interest in food also on the rise of the "celebrity chef". TV shows that idealize the image of food, stressing the importance of its visual appearance, has boosted the food mania online, leading to an increase in food images circulation. Increasingly exposed to appealing images of food, the community of food enthusiast has coined the term "gastroporn" to portray their love for food as a sensorial pleasure (Spence C., et al., 2016). The term became so widely used that eventually reached the Collins English Dictionary, which defined it as "the representation of food in a highly sensual manner" (Spence C., et al., 2016). However, gastroporn doesn't necessary involve sexuality and is often regarded only as the appreciation of appealing and tasty-looking food. Large part of the literature about food photography has also focused on the capacity to estimate the food portion size and the nutritional intake through the photographs (Martin C. K., et al., 2008; Nelson M., et al., 1996; Turconi G., et al., 2005).

In light of this, a further explanation of what the food photo-sharing phenomenon consists in is needed. As opposed to professional food photography which is restricted to knowledgeable photographers and characterized by great amount of hours of commitment, food photo-sharing on photo- and video- sharing platforms involves anyone willing to take and upload on their personal profiles a picture or a video of their dining experience. Even though there aren't any specific rules about it, this kind of publication is most of the time characterized by huge instantaneity and immediacy, which sometimes leads to content being uploaded in a matter of seconds from the actual experience of the meal (Bouvier E., 2018). No particular tools and cameras are needed, most of the time just a simple smartphone and its built-in camera can make it work. Food photosharing doesn't necessary involves the portrayal of the food alone: people tend to capture what is on the background of the meal as well, including the table, the setting and the location. All these elements create the scene that is then portrayed into the photographic representation. Therefore, every single detail counts, from the colours of the cutlery on the table restaurant (Whittle N., 2017), to the design of the packaging delivered at customers' home.

It goes without saying that the mere sensorial feelings of what's the food consistency (i.e. touch), how it smells like, what is the sound it makes when it's cut and what it taste like cannot be fully conveyed through the

screen. However, the spontaneity and closeness of the shared image still is able to create an "emotional, imaginative and intimate experience" between the one sharing and the one watching (Bouvier E., 2018). This happens because the experience shared on the platform is intrinsically human, something that can be easily imagined and vicariously felt. This is the actual point of difference between food photography in cookbooks or magazines and social media food photo-sharing: cookbooks create a "surreal and mouth-watering world" which yet doesn't invite the viewer into a shared experience among peers and into an immediate exchange (Bouvier E., 2018). On the contrary, images on social media elicit responses and opinions from viewers, who can leave their comment as immediately as the content is published (Bouvier E., 2018). The one posting can quickly become viewer of someone else as well, engaging in a community built upon contents and social exchanges: this represents the intrinsic nature of social media, which can be defined as "spaces where everyone has an opportunity to speak, to listen, to perform and to engage" (Bouvier E., 2018).

What arouse intimacy and involvement in such simple content is most probably the point of view chosen. Like unboxing videos, food photos and videos shared on social media are mostly shot capturing what the person is looking at. This first-person point of view is very common for action-based video games and are growing in social media content (Mowlabocus S., 2020). This perspective allows viewers to dive more deeply into the scene and to feel the experience, even only remotely, as it is their own. Considering also the fact that food photo-sharing involves other elements of the ambience in the actual framed scene, it's not rare to witness objects being moved or lid being open, as well as food being touched, cut or grabbed. Thus, hands do commonly appear on the screen and they interact with the object being shot, enhancing even more the first-person involvement. Retail unboxing videos are the number one regarding this: they gently lure people in feeling what the subject is actually watching and touching (Mowlabocus S., 2020). But, I think that the same concept can be applied to food photo-sharing as well. I reckon that especially in the context of O2O food delivery what people experience is extremely similar to the unboxing of a product. The photographic documentation of the food delivered, which is in a packaging exactly like a retail box, essentially depicts the unveil of what happens to be inside, precisely like what happens in any unboxing video. Hence, I believe that what is applied to retail unboxing videos can be transferred to shooting food delivery packaging as well.

Depending on the type of social media, different food photo-sharing contents and interactions can take place (Bouvier E., 2018; Smith A. N. et al., 2012). Twitter, which is a micro-blogging site, allows users to post (i.e. tweet), comment, like, re-share (i.e. retweet) and reply to content on the platform. These contents are mostly in the form of a picture/short video accompanied with a brief statement, in which links may be included as well (Bouvier E., 2018). The interactions in this social media are mostly limited to the single content published, which can be liked, commented or re-shared by the other members of the community. Facebook is characterized by similar contents as Twitter, but enables more freedom in the length of the statement. Like on Twitter, interactions on Facebook may happen frequently on the single content published. Then, a very important social media regarding the topic of food photo-sharing is surely Instagram (Lewis T., 2018). This platform puts much more emphasis on the photo itself but, while allowing users to write a short statement, it

doesn't give the possibility to add external links to it (Bouvier E., 2018). The whole "gastroporn" mania is extremely present on Instagram, thanks to specific hashtags and comments. Very close to Instagram, as far as content features, is Snapchat. The latter is characterized by enormous instantaneity, that "lends itself well to creating desire and feeling of reality, of being in the moment" (Bouvier E., 2018), thus is optimal for food photo-sharing contents. On Snapchat, the viewer has only few seconds to reply to the Snapchat Stories, and can only do so by replying directly to the person posting (Bouvier E., 2018). Lastly, I think it's relevant to mention also Youtube as probably the most important video-sharing platform. As far as brand-related UGCs, Youtube is the realm of unboxing videos, reviews, brand storytelling and satires (Smith A. N. et al., 2012). The content here are mostly longer videos, in which the publisher can fully examine the content that is being shot. Food-related contents are extremely common also on Youtube.

However, what really changed the game for the food photo-sharing phenomenon was the advent in 2016 of the "Instagram Stories". In a period where Instagram was considered too glamorous and too fancy for posting daily instant content, causing a limitation in the amount of content published, copying Snapchat Stories was "Instagram smartest move" (Wagner K., 2018). Instagram Stories are 24 hours-long contents that are supposed to be spontaneous, fun and interactive, where users can document small fragments of their life in a daily photo or video journal. The content here is mostly raw, unedited and unpolished, with the exception of having the possibility to add texts, stickers and GIFs, in order to ease the spontaneity while keeping the content fresh and interactive (Wagner K., 2018). Like in Snapchat, the interactions on the Stories happens directly between the viewer and the publisher, allowing the creation of a closer relationship between users. Unlike Snapchat, the Stories can be re-watched and eventually also saved for longer than 24 hours. Instagram Stories skyrocketed, registering more than twice the amount of users of Snapchat Stories (Wagner K., 2018) and leading to the rise of other identical types of content in other platforms as well: Stories were brought onto Facebook, Whatsapp, Youtube and even Linkedin. Instagram Stories were extremely important for the growth of the food photosharing phenomenon: considering that the outcome quality of the photograph is not that essential anymore, people are even more inclined to record or take a picture of their food experience. The practice of taking some minutes to take pictures of the food before actually eating it has become generally accepted and sometimes even encouraged by restaurants themselves (Zhu J. et al., 2019). According to some, Instagram has changed the way we eat, not only because sometimes we commit into food photo-sharing to the point that the food gets cold, but also because it transformed the way we relate and appreciate food, as well as changed our tastes and buying behavior (Koh, J., 2015). However, for food photo-sharing enthusiasts nothing is too extreme: camera must eat first (Koh J., 2015).

One of the main reasons why the food photo-sharing phenomenon has boomed across all photo- and video-sharing platforms can be traced to the democratization of digital photographic technology (Lewis T., 2018). In the past, food photography was only performed by professional photographers hired by restaurants or magazines, equipped with big camera gears and professional lighting. With the development of smartphones, which all have built-in cameras, digital photography took a new and interesting path, allowing everyone to

document their life through photographic documentations. Mobile phone photography let everyone become capable of shooting photos and videos, and throughout the years with increasingly outstanding results. Smartphones are fundamental for food photo-sharing because they fulfill the need to capture the moment as quickly and as effortlessly as possible (Whittle N., 2017).

In addition to this, what drives consumers to post photos of food is the actual meaning that food has for people. The purpose of eating is threefold: together with its undeniable biological function, there is a social function and a self-expression function (Zhu J. et al., 2019). Apart from the first one, the last two are central in the discussion regarding the food photo-sharing phenomenon. People enjoy eating, and they like to talk about it. Regardless of where this might happen, either at a restaurant or at home, photographing and posting the meal that one is eating generates a potential discussion where most of our conversations nowadays take place: on social media (Bouvier E., 2018). Atwal G. et al. (2019) in their research have found out that the food photosharing practice can help people start a conversation on social media, and thus enhance the creation of social relationships. Moreover, the choice of what to eat, where and how the meal is captured tells a lot about the self, to the point that social media users carefully assess what to project in the digital world as this gives clues about their personality and identity (Atwal G. et al., 2019; Bouvier E., 2018; Zhu J. et al., 2019). Food has been recognized as a powerful mean to express "cultures, feelings and memories" as well (Zhu J. et al., 2019). Food photo-sharing has been considered also a "performance of status" (Bouvier E., 2018), which subtly and indirectly express a certain lifestyle that the publisher possess. This is especially true for food photo-sharing in high-end restaurants, which are considered tangible representations of belonging to a certain social class (Atwal G. et al., 2019). This concept is intrinsically linked to another important driver for the food photosharing phenomenon: uniqueness (Atwal, G. et al., 2019). The need for counter-conformity triggers consumers into the acquirement and utilization of goods and services that can differentiate them from others (Tian K. T., et al., 2001). Food photo-sharing can help in this regard in showing off what the person is experiencing, as well as which unpopular food choices has the person gone for (Atwal G. et al., 2019; Tian K. T., et al., 2001). This also suggests the importance of food photo-sharing for the expression of the self through consumption, but I will cover this topic more in depth in the next section.

Even though professional food photography has been a popular subject of marketing initiatives, enriching cookbooks and food magazines, it was until such practice reached the online world and especially the social media that really stood out as a useful marketing tool for all kinds of service providers. Regarding the food photo-sharing phenomenon, restaurant owners have started to acknowledge its potential and have been encouraging their customers to engage in such practice (Zhu J. et al., 2019). People are increasingly consuming "square meals" (Whittle N., 2017), and they do so for the joy of restaurants. For them, this phenomenon represents a free and organic marketing tool, as well as a way to generate positive electronic word-of-mouth (eWOM) (Apaolaza V. et al., 2020; Zhu, J. et al., 2019), which in turn leads to the creation of a positive image of the brand at a very limited cost (Jeong E., & Jang S. S., 2011). In the hospitality sector, which comprise the food industry, the importance of eWOM is particularly relevant. This is because the hospitality industry is

mostly characterized by intangible offerings that can seldom be tested in advance. Therefore, customers pay enormous attention on reviews, eWOM and UGCs that comes from people that have indeed tried the offering before and that are considered more trustworthy than organizations (Cheong H. J., & Morrison M. A., 2008; Jeong, E., & Jang, S. S., 2011). In this regard, Cheong H. J., & Morrison M. A. (2008) have underlined the strong relationship between UGC and eWOM: "to be successful, eWOM depends on the dissemination of content, and UGC has less influence without eWOM" (Cheong H. J., & Morrison M. A., 2008). Thus, for service providers it's of utmost importance to understand that the two concepts are inevitably linked. Apart from being able to extend the same managerial outcomes of UGC that I explained before to the food photosharing phenomenon too, the limited extant literature on food photo-sharing has found that it can explain a distinct brand identity (Atwal G. et al., 2019), enhance the dining experience and alter customers' brand evaluation (Zhu J. et al., 2019), which can subsequently trigger positive eWOM and intention to purchase (Apaolaza V. et al., 2020; Jeong E., & Jang S. S., 2011; Zhu J. et al., 2019).

## 2.4 The mediating role of self-expression

Much of the existing research on packaging design and consumer behavior has focused mainly on aesthetics principles and emotional arousal (Apaolaza V. et al., 2020; Candi M., et al., 2017; Kumar M., & Garg N., 2010; Reimann M., et al., 2010; Yeo V. C. S., et al., 2017). Although these have been incredibly important for the literature and in contributing to my research, my intention is to concentrate on one particular consumer response (i.e. self-expression), as a consequence of exposure to all facets of a unique O2O food delivery packaging design. The goal is then to assess whether self-expression can elicit food photo-sharing intention. The present study, therefore, centers on self-expression as a process explanation for the potential effect of unique food packaging design on food photo-sharing intention.

Before going in depth in such topic, I reckon that is critical to provide a definition of self-expression. According to Kim H. S., & Ko D. (2007) self-expression can be defined "as expressing one's thoughts and feelings, and these expressions can be accomplished through words, choices or actions".

Starting from the premise that food packaging bears a symbolic meaning (Karnal, N. et al., 2016), it was also found instrumental for the expression of the self through consumption (Underwood, R. L., 2003). This happens mainly because, as Belk (1988) stated, "knowingly or unknowingly, intentionally or unintentionally, we regard our possessions as parts of ourselves". The idea behind Belk's pioneering work (1988) is that the inner core self can be broaden and extended thanks to our possessions, so that an "extended self" is created. The process of self-extension can be executed in three ways: by appropriating or controlling the possessions, by creating them or by knowing them (Belk R. W., 1988). All three means can develop an enlarged version of the self by including our possessions in the extended self (Belk R. W., 1988).

Central in the researches about self-identity and consumption is also the idea that consumers use possessions and brands to uncover who they really are (Ilich K. L., & Hardey M., 2020; Jensen Schau H., & Gilly M. C., 2003; Schembri S. et al., 2010). Consumers take advantage of brands to construct narratives that explains their

self-identity and tend to be more attracted to those brands that have a personality congruent to their own (Phau, I., & Lau, K. C., 2001; Schembri S. et al., 2010). Therefore, possessions and brands become vehicles to communicate a desired image of ourselves to others, as well as a way to make our intangible-self existent by associating it with tangible objects (Jensen Schau H., & Gilly M. C., 2003; Phau, I., & Lau, K. C., 2001). In light of this, it's inevitable to think that, since our possessions explain who we are to others, they should convey a certain message by means of their design. As explained before, both the graphics and structure of a product packaging can generate value across three main dimensions: utilitarian/functional, kinesthetic and emotional (Noble C. H., & Kumar M., 2008; Noble C. H., & Kumar M., 2010). Working on the performance, quality and reliability of a packaging means focusing on the functional value of such product, exploring how to improve the product physical interactions with the consumer explains the kinesthetic value, and lastly, giving attention to which emotional appeals the packaging evoke describes the emotional value (Noble C. H., & Kumar M., 2010). All these three design values are expected to exert a consumer response, as a consequence of exposure to such packaging (Candi M., et al., 2017; Noble C. H., & Kumar M., 2010). Hence, I believe that, in the context of O2O food delivery, a unique (i.e. any packaging that is clearly different from other packages in the category (e.g. atypical, innovative or out of the ordinary) regarding its structure, and/or that displays a personalized and distinctive to the brand visual appearance regarding its graphics) food packaging design, as opposed to a standardized one, could lead customers to the expression of their self-identity through that possession. This concept is supported by Noble C. H., & Kumar M. (2008)'s work which posits that "acquiring non-prototypical products can be seen as a form of self-expression" and that "designs with more personality provide higher symbolic or self-expressive value". However, to further analyze the reasons and motives that have brought me to such assumption, I will methodically examine from each point of view how a packaging's uniqueness can elicit customers' self-expression, following Underwood R. L., (2003)'s categorization of benefits.

According to Underwood R. L., (2003), both graphical and structural elements of a packaging develop three benefits to the brand and to the customer's self-identity:

- 1. Functional benefit;
- 2. Experiential benefit;
- 3. Symbolic benefit.

All three in my opinion can lead to customers' self-expression through the medium of packaging design.

Compared to the others, I reckon that the relationship between functionality and self-expression is the least immediate. This is because the goal of a firm focusing on the utilitarian design of a product packaging may seem as it consists of achieving a functional differentiation by acquiring a practical competitive advantage only. At first glance, excelling in reliability, functionality and performance may not appear as a strategy that aims at stimulating customer's self-expression. However, several researchers have described how actually an enhanced functionality can benefit the consumer/brand relationship and consumer behavioral responses (Candi M., et al., 2017; Noble C. H., & Kumar M., 2008; Noble C. H., & Kumar M., 2010; Underwood R. L., 2003).

Throughout the years, consumers have realized the importance of a well-designed and convenient packaging, in terms of commodity, ease of use and transportability (Underwood R. L., 2003). Functional differentiation is acquired mostly through modifications of the structural elements of a product packaging, thus especially on changes of the shape, size, materials and ergonomics. Efficient packages allow to save up time, effort and money to the benefit of customers' satisfaction (Noble C. H., & Kumar M., 2008), while packaging that either fails to provide enough convenience or even provokes "functional disutility" influence negatively customers' experience with the product (Underwood R. L., 2003). Moreover, satisfaction with the functional features of a product was found positively related to behavioral responses (Candi M., et al., 2017). In other words, being satisfied with how a packaging perform drive consumers to action.

In terms of O2O food packaging design, I believe that a functional and reliable packaging that enables consumers to receive their meal neatly arranged in a solid and leak-proof packaging may enhance customers' self-expression behaviors for many reasons. In fact, they may link their enthusiasm with the functionality of the packaging to a personal positive purchasing decision, hence experiencing feelings of self-assurance, which is closely associated to self-expression (Kim H. S., & Ko D., 2007). Furthermore, they may hold a positive opinion about the reliability of a packaging which drives them to an enhanced relationship between their inner self and the brand itself (Underwood R. L., 2003). As the relationship grows in time, eventually they will feel the need to express their self-identity through such consumption. Lastly, they could experience self-expression in response to a functional and neat packaging if they have a personality that is inclined to such elements of tidiness.

As far as the experiential benefit is concerned, the extant literature is definitely richer than the one regarding the functional benefits (Candi M., et al., 2017; Holbrook M. B., & Hirschman E. C., 1982; Kumar M., & Garg, N. 2010; Reimann M., et al., 2010; Underwood R. L., 2003; Yeo V. C. S., et al., 2017). Experiential benefits generally "relate to what it feels like to use the product or service, satisfying needs such as sensory pleasure, variety and cognitive stimulation" (Underwood R. L., 2003). Experience-based gratification, therefore, includes also aspects of hedonism, aesthetics and emotional arousal (Candi M., et al., 2017; Yeo V. C. S., et al., 2017), as well as "fantasies, feelings and fun" (Holbrook M. B., & Hirschman E. C., 1982). Much of the kinesthetic and visual design of product packaging gets involved in this experiential point of view: both graphics and structural elements can evoke sensory pleasure and generate an engaging experience for the customer (Underwood R. L., 2003). A neuromarketing research has also found that aesthetically appealing packaging, as opposed to standardized packaging, is a stronger elicitor of affective involvement and reward, which subsequently drives preference, judgement and decision (Reimann M., et al., 2010). The fundamental concept behind the relationship between experience and self-expression is that "beyond merely performing as expected, the experience can be special, or meaningful" (Franzak F., et al., 2014). The intangible reactions that experiential benefits provoke, such as emotional arousal or sensory pleasure, can be important drivers for social interactions and for the expression of the self (Berger J., 2011; Franzak F., et al., 2014). An aesthetically pleasing packaging that triggers customers' curiosity and creativity is much more likely to elicit selfexpression and behavioral responses (Candi M., et al., 2017), compared to a standardized one: this idea can find a better explanation just thinking at what people feel when exposed to a blank canvas as opposed to a beautiful piece of art. Throughout the years, in fact, many packaging designs have become real pieces of artwork that not only allow brands to pop up against the competition but that also function as attractive standalone objects.

In the context of O2O food packaging design, differentiation by aesthetics has been considered of utmost importance especially for the nature of such service. Considering that the experience of O2O food delivery packaging happens after the consumer has already made the purchase, anything that additionally delights the customer represents a plus for the customer and its experience with the brand. Focusing on provoking emotional appeals is a way for restaurants to generate a competitive advantage, to engage in a deeper relationship with the audience and to let customers express their self-identity and need for uniqueness through the branded content, especially if those branded products are congruent with their personality (Phau, I., & Lau, K. C., 2001).

Then, fundamental in the explanation of the relationship between a unique food packaging design and self-expression is the symbolic benefit. Customers "construct, maintain and express" their individuality with the symbolic resources of brands (Elliott, R., & Wattanasuwan, K., 1998): symbolism is not part of product appearance, instead it reveals meanings and associations beyond the product's tangible presence (Franzak F., et al., 2014; Underwood R. L., 2003). To be understood and interpreted these meanings not only need to be relevant and significant for the interpretant, but they also need to be culturally shared within the "social context of existence" (Elliott, R., & Wattanasuwan, K., 1998; Schembri S. et al., 2010). In order to include the symbolic meanings of one's possessions in the development of the self, consumers engage in consumption of products, services and experiences that holds symbolic associations for them and their social sphere (Elliott, R., & Wattanasuwan, K., 1998). According to one of the definitions presented in Luna-Cortés G. (2017), "symbolic consumption" is the "intention to project status, feeling of belonging or self-worth through the consumption of goods and services that transmit symbolic values". Hence, the literature has confirmed that consumers do use products, and their packaging, for the expression of their self-identity.

Contrary to advertising, packaging is a tangible marketing communication, thus is able to transfer its symbolic meanings through both mediated and lived experiences (Elliott, R., & Wattanasuwan, K., 1998; Underwood, R. L., 2003). Therefore, people can experience the symbolic resources of packaging in two main manners: consumers can both embrace the symbolism processing a packaging that is temporally and spatially distant, through for example advertising communications, but they can also experience it through purchase and usage, coming across its features in the reality of the everyday life (Underwood, R. L., 2003). Hence people, when purchasing things, continuously engage in symbolic consumptions without even noticing it (Elliott, R., & Wattanasuwan, K., 1998), while the packaging keeps communicating their identity by means of its design. In the context of O2O food delivery, I reckon that the packaging can represent an outstandingly useful tool to create symbolic meanings for customers. As mentioned before in the food photo-sharing section, food itself is

imbued with strong cultural and social meanings (Bouvier E., 2018), that make food consumption and dining experiences concrete manifestations of one's self-identity (Zhu J. et al., 2019). What restaurant owners are quickly acknowledging is that O2O food delivery packaging is not only the tool that merely transports and protects the meal, but it's also fundamental in creating narratives in which the target audience can dive in. Needless to say, the symbolism that a food packaging could convey can only be achieved if the service provider decides to exert some effort in customizing the packaging itself, working on either the graphics and/or the structure. A standardized, blank and impersonal packaging definitely could not elicit the same responses as a unique one. Considering also the dynamics that have taken place during Covid-19, which have forced restaurants to rely only on O2O food delivery and takeaway service, the symbolic elements of a restaurant design (e.g. exteriors, interiors and ambience), which are often used as a cue for quality, could be substituted by a symbolic and meaningful food packaging design, in order to deliver a similar dining experience even at customer's home (Apaolaza, V. et al., 2020). "Restaurants provide more than food to their customers" (Apaolaza, V. et al., 2020): they provide an experience, a narrative and several meanings that allow their audience to express who they are through that (symbolic) consumption.

After having assessed how the functional, experiential and symbolic benefits can lead to customers' expression of the self, I think it's important to underline that all three essentially explain that a unique food packaging design can indeed elicit self-expression. And they can do so individually or, even more powerfully, by joining forces. This is crucial in the present research since the uniqueness that the food packaging design should possess is not restricted to specific elements of design: the idea of uniqueness doesn't require specific aspects of the graphics or of the structure, it's something that displays an effort from the service provider to be recognized and to stand out from the competition, while impressing and delighting the customer.

Now that the relationship between unique food packaging design and self-expression has been outlined, it's time to understand if the mediating purpose of self-expression can be fully taken into consideration by analyzing the literature regarding the second part of the mediation: the relationship between self-expression and food photo-sharing intention.

As Jensen Schau H., & Gilly M. C. (2003) explained in their article, "consumers acquire and display possessions as tangible symbols of identity", and they do so in real life as well as on the Web (Luna-Cortés, G., 2017). If we think about the main motives that drive individuals to use social media, which according to the literature are self-presentation, self-expression and documentation of personal experiences (Fox, A. K. et al., 2018; Luna-Cortés, G., 2017), the association between the intention to express a specific image of the self and the creation of social media content is immediate. According to Ilich K. L., & Hardey M. (2020), in order for possessions to become accepted part of the identity, they necessitate visibility and projection to the public, something that social media excel at. Belk's extended self (1988) has been transposed into a world made of avatars and nicknames, where private possessions are increasingly being shared as online memorabilia (Belk R. W., 2013). Possessions that are displayed online become "re-embodied parts of the self", amplified by the fact that in the digital world "the self is much more actively managed, jointly constructed, interactive, openly

disinhibited, and confessional" (Belk R. W., 2013). The fragments of life that people share online cement in a public "online memory repository", enabling users to outsource memory of events, people, feelings and possessions (Belk R. W., 2013), as well as project a constructed ideal image about themselves to the world. The engagement in food photo-sharing actions, as one of the components of the bigger UGC universe, has also been considered psychologically motivated by self-expression (Christodoulides, G., et al., 2012). Taking back some of the concepts explained before in the section about UGC and food photo-sharing, one of the most important drivers for both participating and producing COBRAs (consumers' online brand-related activities) is self-expression (Muntinga D. G., et al., 2011; Shao G., 2009). UGCs are the perfect outlets to fulfill the need for self-expression: people can construct a certain autobiographical image of themselves both explicitly, in ways that compared to the pre-digital era don't appear that awkward anymore, and implicitly through choices of words, topics, photos and videos (Belk R. W., 2013; Shao G., 2009). Etgar M. (2008) too, who focused his research on consumer co-production processes, has posited that co-production experiences, which encompass UGC too, are perfect means for the construal of narratives about the self.

In the attempt of applying all these knowledge to the food photo-sharing phenomenon few considerations have come up. Although the literature about food photo-sharing is very limited, all the authors, to my knowledge, share the same view about the relationship between self-expression and food photo-sharing intention. Taking a picture or a video of the food that is in front of us is intrinsically related to the expression of the self through that consumption (Apaolaza V. et al., 2020; Atwal G. et al., 2019; Bouvier E., 2018; Zhu J. et al., 2019). Atwal G. et al. (2019), in particular, have supported the idea that people that share photos and videos of their personal dining experiences are moved mainly by experiential and symbolic benefits. Consumers are motivated to develop a narrative that explains who they are or what they are experiencing, by capturing their food choices and by sharing them on photo- and video-sharing platforms, so that everyone can join them in their autobiographical journey (Apaolaza, V. et al., 2020; Atwal, G. et al., 2019).

To sum up, the literature has shown that, in the context of O2O food delivery, a relationship between a unique packaging design and food photo-sharing intention could possibly exists, and that it could be better explained with the introduction of self-expression as a mediating variable. From a managerial point of view, if you want people to take a picture of your product, you must provide them with something out of the ordinary, worth being photographed (Whittle N., 2017). Individuals are highly resistant to conformity because it threatens their willingness to be unique and thus the expression of their self-identity (Tian K. T., et al., 2001). People create a personal style that mirrors their inner self through the use of material goods in order to express their unique and distinctive personality, paying considerable attention to avoid similarities with others (Tian K. T., et al., 2001). If materials possessions are part of our "extended self" (Belk R. W., 1988), they should definitely satisfy people's desire to come up as different among others, as well as be able to communicate it within the "social context of existence" (Elliott, R., & Wattanasuwan, K., 1998; Tian K. T., et al., 2001). Hence, the functional, experiential and symbolic meanings, that a unique food packaging design possess, lead customers to the expression of their identity through that food consumption. However, customers want also a place in

which to communicate their self-expression, and food photo-sharing on photo- and video- sharing platforms completely fulfill these needs for them.

## 2.5 The moderating role of attitude toward social media sharing

Given the importance of social media and UGCs for the customer's expression of the self and for engaging in co-creation behaviors with the brands, for many researchers it has become critical to understand what are the underlying factors that influence the intention to perform such behavior. A large body of literature have focused on examining one particular determinant, that I reckon is interesting to introduce in the present research as well, which is indeed the attitude toward the behavior (Akar E., & Topçu B., 2011; Cheung M. F., & To W. M., 2016; Kim E. et al., 2016; Pelling E. L., & White K. M., 2009).

The behavior that will be analyzed in this study is the act of uploading and sharing content on social media platforms, which is operationalized as "social media sharing". Social media sharing is not restricted to any particular content, it can range from brand-related UGCs to extremely personal content sharing, like capturing happenings with friends. Therefore, anything that involves the upload of some kind of content on one's personal social media profile will be considered an act of social media sharing. Food photo-sharing can - and will - be considered an act of social media sharing, as it involves the creation and upload of a brand-related UGC.

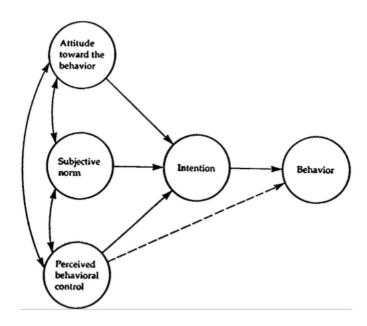
To my knowledge, the literature regarding the relationship between attitude and behavior has used different theories to explain this concept, such as the Theory of Planned Behavior (Ajzen I., 1991), the Technology Acceptance Model (Davis F. D. et al., 1989) and the Attachment Theory (VanMeter R., et al., 2018). In order to shed a light over the possibility to include attitude toward social media sharing as a potential moderator in the relationship between self-expression and food photo-sharing intention, I will take into consideration all of them.

Ajzen I.'s (1991) Theory of Planned Behavior (TPB) has already been applied to social networking websites studies (Pelling E. L., & White K. M., 2009), for viral marketing (Yang H. C., & Wang Y., 2015), for cocreation behaviors in social media (Cheung M. F., & To W. M., 2016), for mobile phone behavior (Walsh S. P., & White K. M., 2007) and for selfie-posting behavior (Kim, E. et al., 2016). It has also been considered reliable for a research on motivations for food photo-sharing on social media (Pember S. E., et al., 2018).

The Theory of Planned Behavior is an extension of the Theory of Reasoned Action (TRA), which was formulated by the same author, and is one of the most important theoretical framework for explaining behaviors (Kim E. et al., 2016). As shown in *Fig. 9*, the TPB shows that the central and immediate factor that guides behavior is the individual's intention to perform that specific behavior. Intention, which thus represents the effort that the individual is willing to exert in following through that behavior, is predicted by three main factors: attitude toward the behavior, subjective norm and perceived behavioral control. Subjective norm is defined as "the perceived social pressure to perform or not to perform the behavior" (Ajzen I., 1991) and

perceived behavioral control, which is the element that essentially distinguish the TPB from the TRA, refers to "the perceived ease or difficulty of performing the behavior" (Ajzen I., 1991).

Fig. 9 The Theory of Planned Behavior (TPB)



Source: Ajzen, I., 1991

Although all three have been considered significant in the prediction of intention, I will focus only on attitude toward the behavior which refers to "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen I., 1991). Attitudes results from "effortful thoughts" about the attitude object (Park C. W., et al., 2010), that are not necessarily related to the relationship between the self and the object, yet more about the judgement of positiveness or negativity about the object itself (VanMeter R., et al., 2018). Attitudes can change consumers' psychological perspectives about a behavior, either attracting them closer or keeping them away from it (Akar E., & Topçu B., 2011).

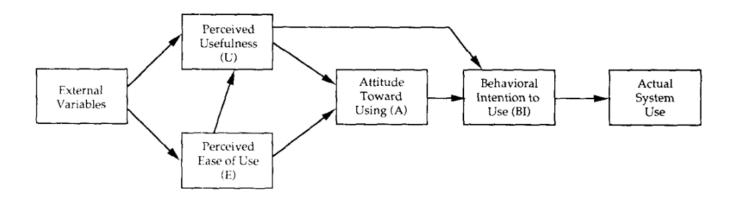
Hence, according to TPB "an individual's attitude toward a particular behavior is one of the most significant predictors of both his/her intention to engage in that behavior and his/her actual behavior" (Cheung M. F., & To W. M., 2016). This means that, in the context of my research, individuals are more likely to engage in food photo-sharing actions if they hold a favourable attitude toward such behavior. Adapting the definition presented in VanMeter R. et al. (2018), the attitude toward social media sharing can be defined as the valence of an individual's overall feelings about sharing content on social media. Considering that, as explained before, food photo-sharing is essentially an act of social media sharing, it is reasonable to believe that if people hold a positive attitude toward social media sharing, they will eventually be more inclined to food photo-sharing intention.

However, a deeper understanding of the context in which this takes place and of the specific variables in action is needed in order to consider the moderation relevant. Luckily, UGC and co-creation behaviors in social

media within the framework of the Theory of Planned Behavior has already been analyzed by the literature (Cheung M. F., & To W. M., 2016; Kim E. et al., 2016; Pelling E. L., & White K. M., 2009; Pember S. E., et al., 2018; Yang H. C., & Wang Y., 2015). It was found that consumers who are highly involved in social media and that consider social media relevant and valuable for them, thus that most probably hold a positive attitude toward social media sharing, will be more likely to engage in co-creation behaviors (Cheung M. F., & To W. M., 2016; Kim E. et al., 2016). Moreover, according to Pelling E. L., & White K. M. (2009), since social media are intrinsically built to facilitate the expression of people's self-identity, if consumers regard that social media use is important for the expression of their individuality, thus holding both a high level of selfexpression and a positive attitude towards the behavior, they will be more likely to engage in high-level use of them (Pelling E. L., & White K. M., 2009). Hence, the expression of self-identity has been recognized a predictor of intention as powerful as attitude (Pelling E. L., & White K. M., 2009). These findings are confirmed in both Walsh S. P., & White K. M. (2007) and Terry D. J., et al. (1999)'s researches. This is of utmost importance in my study as the independent variable in this specific relationship would be selfexpression. In the context of my research, individuals with a high level of self-expression - elicited from a unique food packaging design - and with positive attitudes toward social media sharing would display greater intention to take a picture of the food and to share it on social media. Because people with a high level of selfexpression seek out opportunities to communicate such condition, they are more likely to have the intention to generate UGC (i.e. food photo-sharing) that allow them to express their self-identity, and even more if they hold a positive attitude toward such behavior (Pember S. E., et al., 2018). This assumption is supported also by Kim E. et al.'s work (2016) that posited that narcissisms, which is closely related to self-expression, together with attitude toward the behavior, can significantly predict the intention to post selfies, which is considered an intentional activity of social media sharing to express one's self-identity within the social media environment, something very similar to the concept of food photo-sharing.

The idea behind the introduction of attitude toward social media sharing as potential moderator is supported by the Technology Acceptance Model (TAM) as well, which is another important framework for user acceptance behaviors (Davis F. D. et al., 1989). The Technology Acceptance Model was first invented and tailored for user acceptance of computing technologies, but throughout the years it has been applied to many other fields, including digital marketing (Yang H. C., & Wang Y., 2015). The TAM, which is again another adaptation of the Theory of Reasoned Action, essentially reinforce the concept that "an individual's intention to use technology is determined by his or her attitude towards that behavior" (Davis F. D. et al., 1989). The key difference between the TAM and the TPB model is that in the TAM significant importance is given to the relationship between external variables and internal beliefs, which subsequently impact on the attitude and in turn on the behavioral intention (*Fig. 10*).

Fig. 10 The Technology Acceptance Model (TAM)



Source: Davis F. D. et al., 1989

Hence, according to the TAM, two main factors explain the attitude of an individual toward a certain behavior: perceived usefulness and perceived ease of use (Davis F. D. et al., 1989). The first one is defined as the "individual's subjective assessment of the utilities offered by the technology" (Yang H. C., & Wang Y., 2015), while the second refers to "the cognitive effort that the individual puts forward in learning the technology" (Yang H. C., & Wang Y., 2015). The concept of perceived usefulness as a positive determinant of attitude is confirmed also by Cheung M. F., & To W. M.'s work (2016), which assess that perceived usefulness can be considered a predictor of consumers' attitude toward co-creation in social media, something very similar to the concept of food photo-sharing in my research. Thus, when consumers perceive that sharing on social media is useful for them in obtaining their objectives, among which expressing one's self-identity is definitely up on the top, they will be more likely to hold a positive attitude toward social media sharing and express stronger intention to engage in the creation of UGC (i.e. food photo-sharing).

Perceived ease of use, instead, has been slightly put aside nowadays in the social media context, due to the ubiquity of social media in people's daily existence (Cheung M. F., & To W. M., 2016). However, more and more perceived ease of use is being conceptualized as self-efficacy (Gangadharbatla H., 2008), which is defined as "a person's belief in his or her capability to successfully perform a particular task" (Heslin P. A., & Klehe U. C., 2006). The higher the self-efficacy the stronger the attitudes toward the behavior will be (Gangadharbatla H., 2008), as well as the actual behavior (Khang H., et al., 2014). In the context of my research, this could explain that individuals who think that can successfully share content on social media will be more inclined to express more positive attitudes toward social media sharing and be more motivated to engage in food photo-sharing behaviors. Both perceived usefulness and ease of use have been found to represent key components for the development of positive attitudes toward a behavior, including the specific one that I'm analyzing (i.e. food photo-sharing).

Another framework that has been used by the literature in examining the relationship between attitude and behavior is the Attachment Theory. Originally derived from the bonds between mothers and infants, the

Attachment Theory has also been applied to more generalized relationships between an individual and an object, and also for marketing purposes (Park C. W., et al., 2010; VanMeter R., et al., 2018). Consistent with the Attachment Theory, Park C. W., et al. (2010) affirmed that attachment is an accurate predictor of intention to perform behaviors, even stronger than attitude. In fact, the two constructs are considered substantially different: attitude is a "colder" and more judgmental relationship, while attachment involves a linkage between the object of attachment and the self (Park C. W., et al., 2010). Although the two aspects differ, Park C. W., et al. (2010) posited also that, in order to achieve attachment, the development of a strong positive attitude is a necessary step, especially when the process involves self-expansion. This is because the first step for the inclusion of possessions in the extended self require the establishment of an initial relationship between the two parts, which can be better explained as a positive attitude towards the object. At that point, this relationship can develop into a stronger connection between the object and the self (i.e. attachment) and into the culmination of the process of self-expansion (Park C. W., et al., 2010). Hence, according to this perspective the two constructs converge: without positive attitudes there won't be any attachment. A similar view is shared by VanMeter R., et al. (2018), who applied it to the social media context: both attitude and attachment were found to be significant in predicting behaviors on social media. Considering that in my research the variable of interest would be attitude towards social media sharing, I won't go any further into analyzing how it would perform the construct of attachment. However, the Attachment Theory is relevant in my study as it represents another framework that support the importance of attitudes in the process leading to intention and behavior. As a final point, in order to examine even further the possibility of including attitude toward social media sharing as a potential moderator in the relationship between self-expression and food photo-sharing, I think it's important to mention also the fact that the community commitment has been considered a significant moderator in a relationship involving food photo-sharing (Apaolaza, V. et al., 2020). It was found that individuals that share more contents on social media, and that thus potentially hold a positive attitude toward social media sharing, are more likely to have a stronger sense of commitment to the community (Nov O., et al., 2010). A stronger attachment to the community lead people to contribute more to the community, by for instance sharing more content, spreading more eWOM and engaging in photo-posting behaviors (Apaolaza, V. et al., 2020). Although the two concepts (i.e. community commitment and attitudes toward social media sharing) differs, considering that the literature about food photo-sharing is extremely limited, knowing that community commitment, which can be associated in part with attitudes toward social media sharing, was found a significant moderator in a relationship where food photo-sharing was the dependent variable - like in my study - is definitely a useful starting point, that can be added up to the literature already examined. In conclusion, following the discussion above, I expect that the attitude toward social media sharing could affect the intensity of the relationship between self-expression and food photo-sharing intention: the association between the two variables will be intensified when consumers hold a positive (VS a negative)

attitude toward social media sharing.

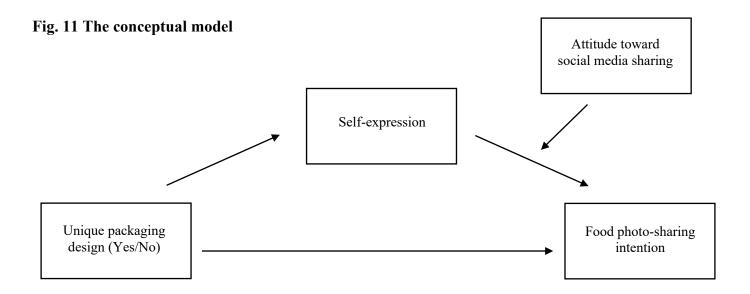
## 2.6 Research questions and conceptual model

While there has been some previous research on food photo-sharing in the environment of a physical restaurant (Apaolaza V. et al., 2020; Atwal G. et al., 2019; Zhu J. et al., 2019), little is known regarding its meaning in O2O food delivery. In general, the literature lacks extensive research about O2O food delivery and consumption behaviors connected to it, as well as about food photo-sharing actions, because of the novelty of these phenomena. With the advent of Covid-19 pandemic, though, as explained before, O2O food delivery in particular experienced a huge outbreak, that lead restaurant owners to start acknowledging its potential. The latter is valid also for the food photo-sharing practice, which is increasingly suggested by restaurants themselves. Furthermore, no other author has ever studied self-expression as a mediator of a relationship including O2O food delivery packaging, and also - to my knowledge - no one has ever studied the variable of attitude toward social media sharing before.

In order to address these specific gaps in the literature, this research aims at understanding how a unique packaging design, in the specific context of O2O food delivery, might influence the consumer's food photosharing intention through self-expression. Moreover, I intend to study the attitude toward social media sharing as a potential moderator of the relationship between self-expression and food photo-sharing intention.

Given the previous discussion, I have formulated the following research questions: *How does the uniqueness of a packaging design, in the context of O2O food delivery, influence food photo-sharing intention through self-expression?* 

Does the attitude toward social media sharing moderates the relationship between self-expression and food photo-sharing intention?



Even though the food photo-sharing phenomenon has gained increasing popularity in the last years, it hasn't been thoroughly investigated by the literature. Little is known, in fact, about which factors can really trigger this behavior, especially in the context of O2O food delivery. Therefore, this research aims at filling this gap, acknowledging what could motivate customers in creating UGCs when they are in the context of food delivery

consumption, but more specifically giving insights into a relatively unknown phenomenon, i.e. food photo-sharing. Apart from extending the incredibly limited body of literature about food photo-sharing, this study would contribute to the research about the online-to-offline technology, and in particular in one of its most successful sectors: the food delivery industry.

Concentrating on the packaging that is delivered at customers' home allows the present study to dug deeper into the importance of packaging in the food industry. In doing so, however, the research will not focus on one specific element of the packaging, yet it will suggest that all features of the package (the graphics and/or the structure) can elicit customers' willingness to take a picture and post it on photo- and video-sharing platforms. Many researchers in this field have focused their research on retail and FMCG packaging, hence there is a consistent gap in the literature about packaging in the O2O food context, that I intend to fill with the present study.

This research would also enable to better understand the relationship between the packaging design of a product and the customers' intention to create and upload social media content about it. This could extend previous social media and UGC researches, giving attention to one potential motive for the creation of one specific brand-related content (i.e. food photo-sharing), which is the packaging design. No one before has indeed analyzed such relationship before. Moreover, the study would contribute to the literature by examining the role played in this by self-expression, and thus giving importance to the body of research about digital identity and self-expansion.

Moreover, by including a moderated mediation that comprises the attitude toward social media sharing as a potential moderator of the relationship between self-expression and food photo-sharing intention, this study would help in better understanding if consumers' attitude toward social media sharing can influence their intention to generate and upload UGCs. This is particularly important because it allows marketers to understand whether differences in consumers' attitude toward social media sharing can impact the volume of brand-related UGCs, thus granting more knowledge about their target audience behaviors.

## **CHAPTER 3: RESEARCH METHODOLOGY AND ANALYSIS**

## 3.1 The hypotheses

After having analyzed the literature regarding O2O food delivery, food packaging design and the food photosharing phenomenon and having assessed that there is indeed a scientific gap in the literature regarding such constructs that needs to be filled, a thorough statistical investigation is needed. In order to address this specific gap in the literature, the present study aims at understanding how a unique packaging design, in the specific context of O2O food delivery, might influence the consumer's food photo-sharing intention through self-expression. No one has ever analyzed such relationship before, nor has ever used self-expression as a mediator of such variables. Moreover, I intend to study the attitude toward social media sharing as a potential moderator of the relationship between self-expression and food photo-sharing intention, with the goal of finding out whether a moderated mediation exists.

As a result of this argumentation, I propose the following research hypotheses:

- H1. A unique packaging design, as opposed to a standard packaging design, leads to a higher food photosharing intention.
- **H2**. Self-expression mediates the relationship between unique packaging design and food photo-sharing intention.
- **H3**. Attitude toward social media sharing positively moderates the relationship between self-expression and food photo-sharing intention.

#### 3.2. Overview

In order to verify the hypotheses, a conclusive and causal research is needed: the study will be carried out through an online Qualtrics experimental survey, for both the pretest and the main study. As shown previously in the conceptual model, the independent variable in the research is unique (vs non-unique/standard) packaging design, while the dependent variable is food photo-sharing intention. I expect that a mediator variable, i.e. self-expression, will better explain this relationship and that attitude toward social media sharing will moderate the relationship between self-expression and food photo-sharing intention.

The IV (categorical) is the only variable that will be manipulated, since all the other variables are all continuous. For this matter, an accurate analysis of whether the manipulation actually worked is necessary and it will be achieved through the pretest. A manipulation check, though, will also be included at the beginning of the questionnaire for the main study. Regarding the other variables, pre-validated multi-item scales will be adapted and used to measure them, paying close attention though to their reliability and validity.

### 3.3 The sample plan

The target population for which the study is designed includes all the people that have ever ordered from an O2O food delivery platform, who are then familiar with such practice and with O2O food delivery packaging. In addition to this, the research is designed also for people that are on social media and that own at least one social media account, from which they could potentially share contents. To narrow it down in a sampling unit, which can still be representative of the whole population, I will take into consideration people close to me, or with some degree of separation from me, that meet these criteria. Even though social media are fairly ubiquitous, to be even surer that the sampling unit comprehends people that not only have already ordered an O2O food delivery but that are also familiar with social media, I decided to share the Qualtrics experimental surveys predominantly through social media, ensuring that the respondents were already part of that world. The sampling technique that I thought would be more appropriate in this research is the snowball non-probability sampling, for which the selection of additional respondents is based on referrals from initial respondents chosen on personal researcher judgements.

## 3.4. The pretest

In order to better understand the effectiveness of the manipulation of the categorical independent variable, a conclusive and causal pilot study was considered necessary. The pretest consists of an experimental Qualtrics survey (<a href="https://impresaluiss.qualtrics.com/jfe/form/SV\_e5m1RVPsw4kaxBs">https://impresaluiss.qualtrics.com/jfe/form/SV\_e5m1RVPsw4kaxBs</a>), written both in English and Italian, which follows a within-subjects design. Therefore, the respondents, who were chosen using a snowball non-probability sampling technique, were exposed to both the conditions.

The conditions are two: a unique packaging design (C1) and a standard packaging design (C2). The stimuli were retrieved from the Internet and partially manipulated through a photographic editing software (see Appendix A). Condition 1 displays a delivery pizza packaging that is unique, i.e clearly different from other packages in the category regarding its structure, as the pizza slides from the cardboard box instead of having a lid on top, and that displays a personalized and distinctive to the brand visual appearance regarding its graphics, as it has the brand logo and colors on the top of the packaging. On the other hand, condition 2 displays a standardized, blank, impersonal and ordinary pizza packaging, which has no personalization regarding either the structure or the graphics whatsoever.

As far as the survey design concern, the participants (n=81) were first asked to answer whether they had ever ordered food from a food delivery platform, in order to fit into the sampling unit (*see Appendix B for full questionnaire*). Being familiar with food delivery it is a critical condition even in the pretest, as the manipulation of the independent variable specifically involves O2O food delivery packaging. The sample check excluded 5 people from the original participants, who were eliminated from the analysis of the results. Then, participants were asked to imagine themselves receiving food just ordered from a food delivery platform and they were asked to answer truthfully to the subsequent questions. After being faced randomly with one of the scenarios, the respondents were asked to answer to a 7-point bipolar scale question (1= not at all, 7= very

much) regarding the perceived uniqueness of the packaging on the screen. Then, they were asked to do the same thing for the opposite scenario as well.

To test whether the manipulation worked, a paired sample t-test on SPSS was performed. Being the pretest a within-subject research, the paired t-test was considered the best parametric test, as it compares scores of two sets of observations from the same group of respondents, which are then not independent from each other. The goal is to inspect whether there are significant mean differences regarding the Perceived Uniqueness when participants are exposed to the unique packaging condition, compared to when exposed to the standard packaging condition ( $\mu_{perceived\ uniqueness,\ unique} \neq \mu_{perceived\ uniqueness,\ standard}$ ).

From the analysis of the data set, it is possible to say that the pretest confirmed that there is a significant difference in Perceived Uniqueness between the unique ( $\mu$ =6.30, SD=.749) VS standard ( $\mu$ =1.05, SD=.278) packaging condition (t(75)= 53.81, p<.001). Thus, it is possible to affirm that the manipulation of the independent variable was successful (*see Appendix C for analysis*).

## 3.5 The main study

The main study consists of a conclusive and causal research, performed through an experimental Qualtrics survey (<a href="https://impresaluiss.qualtrics.com/jfe/form/SV\_9sN3U8y7e9p0vpc">https://impresaluiss.qualtrics.com/jfe/form/SV\_9sN3U8y7e9p0vpc</a>), which follows a between-subjects design. The survey was written both in English and in Italian to allow a faster circulation and a better understanding. The participants, who were chosen using a snowball non-probability sampling technique, in order to fit into the sampling unit, were first asked to answer whether they had ever ordered food from a food delivery platform and whether they have at least one social media account. These two sample checks are fundamental in skimming the right participants for the research, thus, those who answered in a negative way at either one of them were excluded from the study and their survey ended just there.

As far as the others, they received one of two versions of a questionnaire that differed only in terms of the manipulation of the food packaging design (C1 vs C2). Participants were asked to imagine having just received some food ordered from a food delivery platform and to answer truthfully to the subsequent questions. Respondents were then presented randomly with only one of the scenarios and asked to answer to a 7-point bipolar scale question (1= not at all, 7= very much) regarding the perceived uniqueness of the packaging on the screen. This further manipulation check ensures that the manipulation of the independent variable was completely successful even in the main study. From the analysis of the data set, it is possible to affirm that the there is a significant difference in Perceived Uniqueness between those exposed to the unique ( $\mu$ =6.56, SD=.677) VS standard ( $\mu$ =1.03, SD=.174) packaging condition (t(107)=77.43, p<.000) (see Appendix E). Hence, the manipulation of the independent variable was again successful.

After that, the participants were asked to indicate on a 7-point Likert scale (1= strongly disagree, 7= strongly agree) the extent to which they agree to statements regarding their self-expression feelings (S\_EX) and about their food photo-sharing intention (FPSI). Both constructs were measured through pre-validated multi-item scales. For self-expression it was adopted a 5-item scale made of the combination of self-expression scales

from Morrison K. R., & Johnson C. S. (2011) and Zhu J. et al. (2019), while for food photo-sharing intention the 3-item scale was adapted from Ma L., et al. (2018) and Pember S. E., et al. (2018). All multi-item scales in the research will be checked for validity and reliability further in the chapter.

Then respondents were faced with an attention control: they were asked to select one specific multiple choice, which could exclude them from the research if done wrongly. Furthermore, they were asked to answer to some questions about them. Here, they were presented with a 4-item 7-point Likert scale (1= strongly disagree, 7= strongly agree) about the extent to which they agree to statements regarding their attitude toward social media sharing (ATT). The multi-item scale was adapted from Taylor S., & Todd P. A. (1995) and Pember S. E., et al. (2018). Then, they were asked to answer to some demographic questions about their sex, age, employment and marital status (*see Appendix D for full questionnaire*).

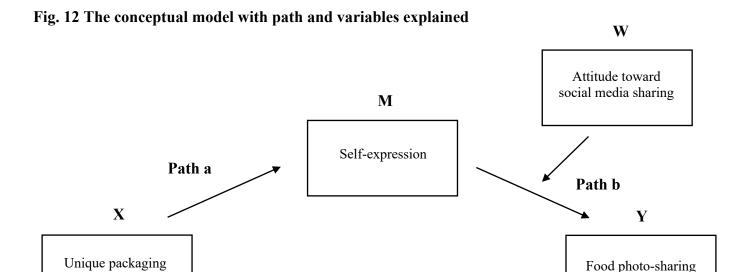
One hundred and ninety-nine people were presented with the survey: 4 were excluded from the research for the sample check about food delivery and one was excluded for the sample check about social media accounts. Other two responses were excluded, as one was completely blank and another one didn't pass the attention control. This leaves the total number of participants to 192. According to the demographics, 107 respondents were female (55.7%) and 84 were male (43.9%), with the majority being under 25 years old (min 18; max 67). Students and full-time employers appear to be the majority, while interestingly there is equality regarding "singles" and "with a partner" (37.5%) (see Appendix F for full demographic information).

In order to test the reliability and validity of the multi-item scales used in the research a confirmatory factor analysis is needed. To avoid interdependence between factors, the factor analysis was done separately between the moderator and mediator and the dependent variable. Results confirm that all three multi-item scales are reliable and valid: self-expression ( $\alpha$ =.989), attitude toward social media sharing ( $\alpha$ =.969) and food photosharing intention ( $\alpha$ =.978) (see Appendix G for analysis).

Finally, a moderated mediation analysis using bootstrapping software (SPSS Macro PROCESS) developed by Hayes (2013) was utilized to examine the moderated mediation in the research. Having hypothesized that self-expression mediates the main effect of unique packaging design on food photo-sharing intention and that attitude toward social media sharing would function as a moderator in the relationship between self-expression and food photo-sharing intention, the moderated mediation model 14 in PROCESS was used to estimate such assumptions. In a series of linear regressions, the direct and indirect effects of the independent variable on the dependent variable were explored, using unique packaging design as the independent variable (X), food photo-sharing intention as the dependent variable (Y), self-expression as the mediator (M), and attitude toward social media sharing as the moderator (W) (Fig. 12).

Findings show that the direct effect of unique packaging design on food photo-sharing intention is not significant (b=0.33; t=0.86; p=0.38; 95% CI [-0.42, 1.08]). This means that unique packaging design is not a significant predictor of food photo-sharing intention (path c'). Thus, the direct effect of X on Y is not significant and H1 is not confirmed.

However, results also explain that the indirect effect between X (unique packaging design) and Y (food photosharing intention) through the mediator (self-expression) is positive and significant, and the bootstrap confidence interval of the conditional indirect effects does not contain zero (ab=2.22; 95% CI [0.40, 2.55]). Unique packaging design emerges as a significant and positive predictor of self-expression (path a) (b=4.54; t=33.48; p=.000; 95% CI [4.27, 4.80]), and self-expression has been found to be a significant and positive predictor of food photo-sharing intention (path b) (b=0.48; t=6.22; p=.000; 95% CI [0.33, 0.64]). Hence, there is significant statistical evidence of a mediation effect and H2 is confirmed.



Path c'

The results also reveal that it is possible to find evidence of moderation of attitude toward social media sharing in the relationship between self-expression and food photo-sharing intention. The interaction term is positive and significant (b=0.04; t=3.44; p=.000; 95% CI [.02, .07]). The bootstrap confidence interval of the index of moderated mediation also doesn't contain zero (index=0.21, 95% CI [0.09, 0.33]), indicating that, as predicted, there is significant statistical evidence of moderated mediation and H3 is confirmed (*see Appendix H for analysis*).

The fact that H1 is not confirmed while H2 is confirmed shows that a full mediation exists between the independent and dependent variable through the mediator. This implies that there isn't a significant direct relationship between unique packaging design and food photo-sharing intention, unless the mediator self-expression is considered.

#### 3.6 Discussion

design (Yes/No)

The findings shed a light on multiple dimensions, uncovering important information about the food photosharing phenomenon and its motives. Although the practice of taking and posting food photos is extremely popular on social media and, as illustrated before, holds great managerial relevance in the hospitality industry,

intention

it has been mostly ignored by the literature. Therefore, the present study wants to fill this gap by analyzing what could motivate customers in creating UGCs, in particular when they are in the context of O2O food delivery consumption.

The results of the study confirm the hypothesized existence of a relationship between unique packaging design and customers' food photo-sharing intention. However, this relationship is not direct, as there was no significant statistical evidence of such direct effect, instead it is fully mediated by self-expression. This conclusion is not totally unforeseen, as there were no previous studies that confirmed a direct relationship between food packaging design and food photo-sharing intention. The extremely limited literature that address the food photo-sharing phenomenon has one common denominator, which is indeed self-expression (Apaolaza V. et al., 2020; Atwal G. et al., 2019; Bouvier E., 2018; Zhu J. et al., 2019). All articles include, although in different manners, self-expression as an important and significant component for food photo-sharing, which is also what is possible to deduce from the present research. Hence, the fact that a direct relationship was not found to be significant between unique packaging design and food photo-sharing intention is not going to interfere that much in the goals of the present study. In addition, it was found that the influence of self-expression on food photo-sharing intention is stronger for individuals with a positive attitude toward social media sharing, compared to those with a negative attitude toward social media sharing. Thus, as expected, a moderated mediation exists and it is statistically significant.

Despite the incredibly limited body of literature regarding the food photo-sharing phenomenon, the findings do not come as unexpected. The present study allows to affirm that a unique packaging design, as opposed to a standardized one, definitely lead customers to the expression of their self-identity through that possession. This corroborate Noble C. H., & Kumar M. (2008)'s studies which posited that "acquiring non-prototypical products can be seen as a form of self-expression" and that "designs with more personality provide higher symbolic or self-expressive value".

As thoroughly analyzed in Chapter 2, the graphics and the structure of a package can provide three different benefits on a customer - functional, experiential and symbolic – that can all on turn trigger self-expression. Therefore, the stimuli used in the survey were built to combine both structural and graphical elements of uniqueness and, thanks to the findings, this research contributes to the literature that considers them to be important drivers for the expression of the self (Candi M., et al., 2017; Elliott, R., & Wattanasuwan, K., 1998; Underwood R. L., 2003). Functional differentiation, like in the present research the pizza sliding from the cardboard box instead of having a lid on the top, positively enhance the customer/brand relationship and elicit consumer behavioral responses (Candi M., et al., 2017; Noble C. H., & Kumar M., 2008; Noble C. H., & Kumar M., 2010; Underwood R. L., 2003). This drive customers to action and, as confirmed by the findings, lead them to self-expression.

As far as the experiential benefit is concerned, what can be inferred from the literature is essentially that aesthetics matter. It is no surprise that something that is good-looking attracts more photos: it pops, from the competition and from the social media feed. Sensory pleasure and emotional arousal can be evoked by both

graphics and structural elements of a packaging (Underwood R. L., 2003), and they can drive customers to preference, judgement and decision (Reimann M., et al., 2010), but most importantly to social interactions and the expression of the self (Berger J., 2011; Franzak F., et al., 2014). This is not only confirmed by the present study, but it is also coherent with Candi M. et al. (2017), who affirmed that an aesthetically pleasing packaging that triggers customers' curiosity and creativity is much more likely to elicit customers' self-expression and behavioral responses.

Furthermore, what really fuel the expression of individuality through possessions are the symbolic benefits. Consumers engage with possessions through meanings and associations that go beyond the product's tangible presence, projecting their status, need for uniqueness, feeling of belonging and self-identity through those symbolic consumptions (Elliott, R., & Wattanasuwan, K., 1998; Franzak F., et al., 2014, Luna-Cortés G., 2017; Underwood, R. L., 2003), and developing an "extended self" that incorporates both the self and the possession (Belk R. W., 1988). What and where we are eating, as well as how we document the dining experience is a "performance of status" (Bouvier E., 2018), which subtly suggest to our network our own identity. Food photo-sharing is useful for consumers to differentiate themselves from less sophisticated consumers, to enhance self-esteem and get peer recognition (Atwal, G. et al., 2019). A unique food packaging design, as opposed to a blank impersonal standard packaging, in the context of O2O food delivery, is useful for customers to make a statement about their self to others, to create a narrative about one's own identity and to show off what the person is experiencing.

Considering the stimuli used in the research, the symbolic meanings that could have motivated respondents to answer positively regarding the extent of their self-expression are several: for instance, they could think of that unique packaging design as an atypical, innovative and out of the ordinary product that perfectly fits their dynamic and original personality. Moreover, they could think of that unique food packaging design as a mean to communicate to others that they are purchasing a cool, fancy and glamorous product - which is (maybe) also more expensive - in order to express a desired impression of sophistication and richness.

These needs to show a status, uniqueness and belonging, to become accepted part of the identity, necessitate visibility and projection to the public, which is what social media are meant for (Ilich K. L., & Hardey M., 2020; Luna-Cortés G., 2017). Individuals create UGCs, like food photo-sharing, to communicate the constructed ideal image that they developed through material possessions, or to express the emotional delight or functional satisfaction with what they managed to purchase. And they do so where most of their conversations take place: on social media platforms. Even though the relationship between self-expression and social media content creation appears to be immediate, the present study brings statistical evidence that such relationship is indeed positive and significant. A unique packaging design, through self-expression, elicits a stronger food photo-sharing intention: while the uniqueness of food packaging is a significant positive predictor of self-expression, the latter has been found to be a positive significant predictor of food photo-sharing. Hence, a full mediation effect of self-expression exists between the independent and dependent variable.

In addition to this, findings demonstrated that the moderating effect of attitude toward social media sharing is indeed positive and significant. This means that, in the specific context of the research, individuals with a high level of self-expression are more likely to engage in food photo-sharing actions if they hold a favourable attitude toward social media sharing. Because people with a high level of self-expression seek out opportunities to communicate such condition, they are more likely to have the intention to generate UGCs (i.e. food photo-sharing) that allow them to express their self-identity, and, as analyzed in the present study, even more if they hold a positive attitude toward such behavior. This specific conclusion contributes to the body of literature regarding the relationship between attitude and behavior, such as the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM). Both these theories posited that attitude toward the behavior is a significant predictor of behavioral intention, coherently with what was demonstrated in the present research.

## 3.7 Managerial implications

The findings of this study have meaningful managerial implications for O2O food delivery actors, marketers and social media managers in the hospitality industry. Firstly, a unique packaging design can positively influence consumers' food photo-sharing intention through self-expression. Therefore, restaurant managers and caterers that operate in the O2O food delivery industry should devote special attention to the functional, emotional and symbolic meanings that the design of their packaging evokes. Given that a unique food packaging design is a form of self-expression that some individuals use to express their self-identity, restaurant owners should match the design of their packaging with consumers' self-concepts, improving their market positioning (Zhu J. et al., 2019), or they should find out which desired image about themselves consumers wish to communicate and modify their packaging design accordingly. As a consequence of this, restaurants could increase customers' willingness to take a picture of the food and to post it on social media.

Secondly, as suggested by the moderating effect of attitude toward social media sharing, holding a favourable attitude toward the behavior can positively affects consumers' intention to create social media content, like food photo-sharing. Therefore, restaurant owners should pay attention to their target audience and its average attitude toward social media sharing, in order to encourage the food photo-sharing practice or detour toward other marketing initiatives. Coherently with what emerged in Martini L. & Di Lorenzo A. (2020) and Just Eat (2020) Italian reports, the present research has documented that Millennials and Gen Z are the most active users in O2O food delivery. Considering that the same thing happens on social media (Hootsuite, 2021), it is reasonable to believe that on average O2O food delivery consumers have a positive attitude toward social media sharing too, hence potentially representing optimal food photos creators. From a managerial point of view, though, if you want people to take a picture of your product, you must provide them with something worth being photographed (Whittle N., 2017). Therefore, O2O food delivery restaurants should focus on providing food packaging that are functionally exciting, emotionally pleasing, symbolically meaningful, but most importantly photo worthy.

### 3.8 Limitations and future research opportunities

This research has several limitations. First of all, its relatively small sample size could represent a problem in the generalization of the findings from the research sample to the population as a whole. Moreover, the research was conducted through an online Qualtrics experimental survey, as it is the easiest and fastest way to measure data considering the situation. However, the intrinsic nature of the research, which is strongly linked to associations and meanings evoked from a tangible product, makes it difficult to really fathom these feelings from just a computer or a mobile screen. Especially for the mediating effect of self-expression, I reckon that the fact that the survey was carried out online represented a real weakness.

Despite these limitations, this research has brought to light some promising channels that are worth discovering in future research. For instance, future scholars are welcomed to join in exploring the influences that demographic variables (e.g. gender, age and marital status) could have in these relationships. For example, it would be interesting to understand potential differences between male and females in food photo-sharing intention. Next, further studies could concentrate on the different social media platforms (e.g. Instagram vs Facebook) and acknowledge if there are dissimilarities regarding the intention to create food content in them. Lastly, future researches could focus on potential differences regarding the kind of food ordered: if, for example, some specific food attracts more food photo-sharing than other.

#### **CONCLUSION**

This research has taught us that most of our consumption activities involve in some ways the digital world, whether it is the initial awareness phase, the moment we take action and purchase or when we decide to share our experiences. Hence, finding the right balance between the immersive and personalized experience given by online channels and the tangible offline dimensions that most products and services still hold will be the most important challenge for organizations in the future.

In the food industry this is particularly relevant as new business solutions that involve digital technologies have started to appear, yet the service that restaurants and caterers provide is still intrinsically tangible. The growth of the food delivery market has also enlarged the range of action of such service providers, supplying them with new touchpoints with their audience. Therefore, as customers interact with restaurants in new ways, it becomes important for them to come back to customers with the best and most personalized experience possible. New marketing and communication tools in such context come in handy to efficiently support the customer along every step of its path to purchase.

The present research has focused on two of those communication means: packaging design and social media brand-related UGC. In particular, it was hypothesized that the uniqueness of a packaging design in the context of O2O food delivery can elicit greater food photo-sharing intention through the mediation of self-expression. Here, the relationship between food packaging design and food photo-sharing becomes important in order to understand how to efficiently engage the audience and exploit the strengths of both the physical and digital dimensions of the newly formed food consumption demand and supply. Plus, it was investigated how does the attitude toward social media sharing might moderate the relationship between self-expression and food photo-sharing intention. From the statistical analyses performed on a sample of 192 people, it was confirmed the hypothesized existence of a relationship between unique packaging design and customers' food photo-sharing intention, which is though fully mediated by self-expression. Moreover, as previously hypothesized, it was found that the influence of self-expression on food photo-sharing intention is indeed stronger for individuals with a positive attitude toward social media sharing.

These findings have significant managerial consequences, as they suggest new avenues for those service providers that utilize packaging and encounter brand-related UGC. Considering that individuals develop a constructed ideal image of themselves through many material possessions and that they seek opportunities to communicate such portraits to a wider network, for example using social media UGC, the findings of the present study can be useful cues for many other industries and fields.

Even though the importance of such results can go beyond the O2O food delivery context, it is particularly critical for restaurants and O2O food delivery actors to acknowledge and exploit the findings in this study. Focusing on the food packaging can not only be a way to differentiate the brand among the competition or a way to keep the product inside safer, yet is also a useful tool to create a better brand/customer relationship and increase customers willingness to talk about the brand. These findings give brands new solutions to engage

efficiently with their audience, as well as to get free digital marketing and eWOM. As it is possible to see, the potentialities of the digital environment are huge, but at the end it will be restaurants' job to take advantage of such opportunities and to bring those information in their favor.

# **APPENDIX**

# A. Stimuli

• Condition 1: Unique packaging design



• Condition 2: Standard packaging design



# B. Pretest survey design

Construct and Source	Scale items
Introduction	Hello! I am a marketing student at LUISS University. I need just few moments of your time to ask you some questions for my master thesis. My study is about consumer behaviors in the context of food delivery consumption. Only a limited number of individuals are being surveyed; thus, YOUR opinions on these topics are very important to the success of the project. Your responses to this survey will remain COMPLETELY ANONYMOUS. Your name and the individually-identified responses will NOT be provided to anyone. Thank you!
Sample check  Multiple choice, select only one	Have you ever ordered food from a food delivery platform?  a) Yes b) No (if no, the survey ends)
Conditions Independent Variable X: unique vs standard packaging design Manipulated	Imagine that you have just received the food that you have ordered from a food delivery platform. You will see two different images of what you have received, and you will be asked to answer some questions.  Unique packaging design (1) / Standard packaging design (0) Randomized
Manipulation check X Perceived Uniqueness (Perceived_uniqueness)  Bipolar scale, 7-point	On a scale from 1 (not at all) to 7 (very much) to what extent do you think this packaging could be considered "unique"?  The definition of unique is: "any packaging that is clearly different from other packages in the category (e.g. atypical, innovative or out of the ordinary) regarding its structure, and/or that displays a personalized and distinctive to the brand visual appearance regarding its graphics".
Conditions Independent Variable X: unique vs standard packaging design Manipulated	Unique packaging design (1) / Standard packaging design (0) Randomized
Manipulation check X Perceived Uniqueness (Perceived_uniqueness)  Bipolar scale, 7-point	On a scale from 1 (not at all) to 7 (very much) to what extent do you think this packaging could be considered "unique"?  The definition of unique is: "any packaging that is clearly different from other packages in the category (e.g. atypical, innovative or out of the

ordinary) regarding its structure, and/or that
displays a personalized and distinctive to the
brand visual appearance regarding its graphics".

## C. Pretest analysis

A statistical analysis will be performed to inspect whether there are mean differences in perceived uniqueness between participants when exposed to the "unique packaging" condition (C1) compared to when exposed to the "standard packaging" condition (C2)  $\rightarrow$ 

 $H0: \mu_{perceived\_uniqueness,\ unique} = \mu_{perceived\_uniqueness,\ standard}$ 

H1:  $\mu_{perceived\_uniqueness}$ , unique  $\neq \mu_{perceived\_uniqueness}$ , standard

## **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Perceived_uniqueness_u nique	6,30	76	,749	,086
	Perceived_uniqueness_s tandard	1,05	76	,278	,032

## **Paired Samples Correlations**

				Significance				
		N	Correlation	One-Sided p Two-Sided p				
Pair 1	Perceived_uniqueness_u nique & Perceived_uniqueness_s tandard	76	-,206	,037	,075			

	Paired Samples Test									
Paired Differences Significance										icance
	Std. Std. Error Hean Deviation Mean Lower Upper				t	df	One-Sided p	Two-Sided p		
Pair 1	Perceived_uniqueness_u nique - Perceived_uniqueness_s tandard	5,250	,850	,098	5,056	5,444	53,814	75	<,001	<,001

Sample mean for Perceived\_uniqueness\_unique: 6.30

Sample mean for Perceived uniqueness standard: 1.05

Although the sample mean of Perceived\_uniqueness\_unique appears to be larger than sample mean of Perceived\_uniqueness\_standard, it is necessary to further test if the mean difference is actually significant. Therefore, I will test it with a pairwise t-test: since the hypothesis is two-sided, an alpha= 0.05/2 = 0.025 will be used.

The p. value <.001 (t(75)=53.814) appears to be smaller than alpha (0.025). So, it is possible to reject H0 and conclude with 95% confidence that the mean of Perceived\_uniqueness\_unique (C1) and the mean of Perceived\_uniqueness\_standard (C2) significantly differs. As expected, when people were exposed to the unique packaging condition their Perceived Uniqueness was significantly higher than when exposed to the standard packaging condition (6.30 VS 1.05). So, the **manipulation of the IV** (Unique packaging design) was successful.

## D. Main study survey design

Construct and Source	Scale items
Introduction	Hello! I am a marketing student at LUISS University. I need just few moments of your time to ask you some questions for my master thesis. My study is about consumer behaviors in the context of food delivery consumption. Only a limited number of individuals are being surveyed; thus, YOUR opinions on these topics are very important to the success of the project. Your responses to this survey will remain COMPLETELY ANONYMOUS. Your name and the individually-identified responses will NOT be provided to anyone.
Sample check 1	Thank you!  Have you ever ordered food from a food delivery platform?
Multiple choice, select only one	a) Yes a) No (if no, the survey ends)
Sample check 2	Do you have at least one social media account?  a) Yes
Multiple choice, select only one	b) No (if no, the survey ends)
Presentation 1	Imagine that you have just received some food that you have ordered from a food delivery platform. You will now see what you have received, and you will be asked to answer some questions.
Conditions Independent Variable X: unique vs standard packaging design (PACK) Manipulated	Unique packaging design (1) / Standard packaging design (0) Randomized
Manipulation check X Perceived Uniqueness (P_UN)	On a scale from 1 (not at all) to 7 (very much) to what extent do you think this packaging could be considered "unique"?
Bipolar scale, 7-point	The definition of unique is: "any packaging that is clearly different from other packages in the category (e.g. atypical, innovative or out of the ordinary) regarding its structure, and/or that

	displays a personalized and distinctive to the brand visual appearance regarding its graphics".
Mediator M: Self-expression (S_EX) Adapted from Morrison K. R., & Johnson C. S. (2011) and Zhu J. et al. (2019)  Likert scale, 7-point	On a scale from 1 (strongly disagree) to 7 (strongly agree) to what extent do you agree or disagree with the following statements:  1. S_EX_1: This food packaging says something about me.  2. S_EX_2: This food packaging makes me feel good about myself.  3. S_EX_3: This food packaging helps in establishing my self-identity.  4. S_EX_4: This food packaging creates a certain image of me.  5. S_EX_5: This food packaging is a form of self-expression.
Dependent Variable Y: Food photo-sharing intention (FPSI) Adapted from Ma L., et al. (2018) and Pember S. E., et al. (2018) Likert scale, 7-point	On a scale from 1 (strongly disagree) to 7 (strongly agree) to what extent do you agree or disagree with the following statements:  1. FPSI_1: I intend to take a picture of the food and to post it on social media.  2. FPSI_2: I expect to take a picture of the food and to post it on social media.  3. FPSI_3: I plan to take a picture of the food and to post it on social media.
Attention control  Multiple choice, select only one	Please select the number 3.  a) 1  b) 2  c) 3  d) 4
Presentation 2	Now you will be asked to answer some questions about you.
Moderator W: Attitude toward social media sharing (ATT) Adapted from Taylor S., & Todd P. A. (1995) and Pember S. E., et al. (2018)  Likert scale, 7-point	On a scale from 1 (strongly disagree) to 7 (strongly agree) to what extent do you agree or disagree with the following statements:  1. ATT_1: Sharing content on social media is good.  2. ATT_2: Sharing content on social media is useful.  3. ATT_3: Sharing content on social media is fun.  4. ATT_4: I like the idea of sharing content on social media.
Gender  Multiple choice, select only one	What is your gender?  a) Female b) Male c) I prefer not to say
Age	What is your age? Number
Open question, with "Validation" Employment status	What is your employment status?  a) Unemployed

Multiple choice, select only one	b) Student c) Employed full-time d) Employed part-time e) Homemaker f) Retired
Marital status	What is your marital status?  a) Single
Multiple choice, select only one	b) With a partner c) Married d) Divorced

## E. Manipulation check

A statistical analysis will be performed to inspect whether there are mean differences in perceived uniqueness (P\_UN) between participants that were exposed to the "unique packaging" condition (1) compared to those exposed to the "standard packaging" condition  $(0) \rightarrow$ 

 $H0: \ \mu_{perceived\_uniqueness, \ unique} = \mu_{perceived\_uniqueness, \ standard}$ 

 $H1: \mu_{perceived\_uniqueness,\ unique} \neq \mu_{perceived\_uniqueness,\ standard}$ 

**Group Statistics** 

	PACK	N	Mean	Std. Deviation	Std. Error Mean
P_UN	1,00	96	6,5625	,67765	,06916
	,00	96	1,0313	,17491	,01785

#### **Independent Samples Test**

		Levene's Test 1 Varia			t-test for Equality of Means					
						Sig. (2-	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	tailed)			Lower	Upper
P_UN	Equal variances assumed	149,574	,000	77,437	190	,000	5,53125	,07143	5,39035	5,67215
	Equal variances not assumed			77,437	107,602	,000	5,53125	,07143	5,38966	5,67284

Sample mean for Perceived uniqueness unique: 6.56

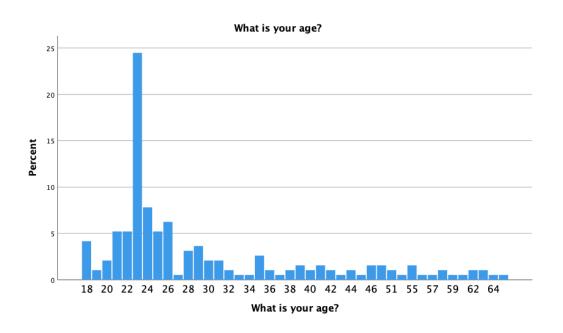
Sample mean for Perceived uniqueness standard: 1.03

Although the sample mean of P\_UN (Perceived Uniqueness) for the participants exposed to the unique packaging condition (1) appears to be larger than sample mean of Perceived Uniqueness for the participants exposed to the standard packaging condition (0), it is necessary to further test if the mean difference is actually significant.

Therefore, I will test it with an independent sample t-test: since the hypothesis is two-sided, an alpha= 0.05/2 = 0.025 will be used.

The p. value <.000 (t(107)=77.43) appears to be smaller than alpha (0.025). So, it is possible to reject H0 and conclude with 95% confidence that the mean of Perceived Uniqueness for the participants exposed to the unique packaging condition and the mean of Perceived Uniqueness for the participants exposed to the standard packaging condition significantly differs. As expected, for those people exposed to the unique packaging condition their Perceived Uniqueness was significantly higher than for those exposed to the standard packaging condition (6.56 VS 1.03). So, the manipulation of the IV (Unique packaging design) was again successful.

# F. Demographics



# What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	84	43,8	43,8	43,8
	Female	107	55,7	55,7	99,5
	I prefer not to say	1	,5	,5	100,0
	Total	192	100,0	100,0	

### What is your employment status?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	83	43,2	43,2	43,2
	Employed part-time	2	1,0	1,0	44,3
	Employed full-time	105	54,7	54,7	99,0
	Homemaker	1	,5	,5	99,5
	Retired	1	,5	,5	100,0
	Total	192	100,0	100,0	

# What is your marital status?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	72	37,5	37,5	37,5
	With a partner	72	37,5	37,5	75,0
	Married	45	23,4	23,4	98,4
	Divorced	3	1,6	1,6	100,0
	Total	192	100,0	100,0	

# G. Validity and reliability of the multi-item scales

A statistical analysis will be performed to inspect the validity and reliability of the three scales used in the research: self-expression, attitude toward social media sharing and food photo-sharing intention. To avoid interdependence between factors, the factor analysis was done separately between the moderator and mediator and the dependent variable.

After checking the box for "KMO and Bartlett's test of sphericity" and for the "scree plot", these were the results of the factor analysis for self-expression and attitude toward social media sharing.

**KMO and Bartlett's Test** 

Kaiser-Meyer-Olkin M Adequacy.	,886	
Bartlett's Test of Sphericity	Approx. Chi-Square	3206,948
	df	36
	Sig.	,000

#### Communalities

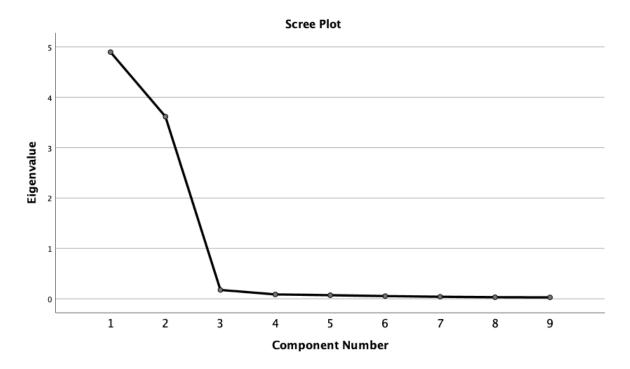
	Initial	Extraction
S_EX_1	1,000	,951
S_EX_2	1,000	,958
S_EX_3	1,000	,975
S_EX_4	1,000	,956
S_EX_5	1,000	,961
ATT_1	1,000	,939
ATT_2	1,000	,871
ATT_3	1,000	,947
ATT_4	1,000	,956

Extraction Method: Principal Component Analysis.

#### **Total Variance Explained**

Initial Eigenvalues		Extractio	n Sums of Square	ed Loadings	
Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
4,897	54,416	54,416	4,897	54,416	54,416
3,616	40,176	94,592	3,616	40,176	94,592
,176	1,951	96,543			
,087	,966	97,509			
,071	,789	98,298			
,054	,596	98,894			
,041	,452	99,346			
,031	,343	99,689			
,028	,311	100,000			
	4,897 3,616 ,176 ,087 ,071 ,054 ,041	Total % of Variance 4,897 54,416 3,616 40,176 ,176 1,951 ,087 ,966 ,071 ,789 ,054 ,596 ,041 ,452 ,031 ,343	Total % of Variance Cumulative % 4,897 54,416 54,416 3,616 40,176 94,592 ,176 1,951 96,543 ,087 ,966 97,509 ,071 ,789 98,298 ,054 ,596 98,894 ,041 ,452 99,346 ,031 ,343 99,689	Total         % of Variance         Cumulative %         Total           4,897         54,416         54,416         4,897           3,616         40,176         94,592         3,616           ,176         1,951         96,543           ,087         ,966         97,509           ,071         ,789         98,298           ,054         ,596         98,894           ,041         ,452         99,346           ,031         ,343         99,689	Total         % of Variance         Cumulative %         Total         % of Variance           4,897         54,416         54,416         4,897         54,416           3,616         40,176         94,592         3,616         40,176           ,176         1,951         96,543         96,543         97,509         97,509         98,298         98,298         98,298         98,298         98,298         99,346         99,346         99,346         99,346         99,346         99,689         99,689         99,689         99,689         99,689         99,689         99,689         99,689         99,689         90,689

Extraction Method: Principal Component Analysis.



## Component Matrixa

	Component				
	1	2			
S_EX_1	,951	-,213			
S_EX_2	,944	-,259			
S_EX_3	,961	-,227			
S_EX_4	,952	-,222			
S_EX_5	,952	-,233			
ATT_1	,345	,905			
ATT_2	,277	,891			
ATT_3	,278	,933			
ATT_4	,303	,930			
Extractio	n Method: P	rincipal			

a. 2 components extracted.

From the KMO and Bartlett's test it is possible to see that KMO statistic=0.886 which is larger than recommended threshold (0.50). Thus, we can say:

H0: the correlation matrix is an identity matrix

H1: the correlation matrix is not an identity matrix

Since the Bartlett's test has a Sig. (p.value) =0.000 < than alpha (=0.05), it is possible to reject H0. Thus, the variables are related and therefore suitable for structure detection (data reduction). All communalities are above the recommended threshold of 0.60. As expected, two factors were extracted and have eigenvalue > 1, with a cumulative percentage of 94.592. The two components extracted are the ones that include all the items of each scale. Thus, it is possible to conclude that both the **scales are valid**.

To test the reliability of the scales a reliability analysis was performed for both of them.

# **Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,989	,990	5

### Inter-Item Correlation Matrix

	S_EX_1	S_EX_2	S_EX_3	S_EX_4	S_EX_5
S_EX_1	1,000	,946	,959	,934	,938
S_EX_2	,946	1,000	,965	,936	,946
S_EX_3	,959	,965	1,000	,956	,957
S_EX_4	,934	,936	,956	1,000	,963
S_EX_5	,938	,946	,957	,963	1,000

# Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
S_EX_1	14,76	100,301	,961	,928	,988
S_EX_2	14,71	99,420	,966	,940	,987
S_EX_3	14,60	95,926	,980	,962	,985
S_EX_4	14,55	96,856	,966	,942	,987
S_EX_5	14,42	93,795	,970	,946	,986

# **Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,969	,974	4

# Inter-Item Correlation Matrix

	ATT_1	ATT_2	ATT_3	ATT_4
ATT_1	1,000	,871	,923	,933
ATT_2	,871	1,000	,859	,869
ATT_3	,923	,859	1,000	,962
ATT_4	,933	,869	,962	1,000

# Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ATT_1	15,54	44,291	,943	,891	,957
ATT_2	15,12	45,593	,883	,784	,972
ATT_3	15,63	37,838	,954	,931	,950
ATT_4	15,59	35,678	,962	,941	,952

The results show that the Cronbach's alpha for self-expression scale is .989, which is above minimum acceptable threshold (0.60). All correlations between items are also above 0.60. Thus, it is possible to conclude that the **scale is reliable**. The results show also that the Cronbach's alpha for attitude toward social media sharing scale is .969, which is above minimum acceptable threshold. All correlations between items are above 0.60 as well. Hence, it is possible to say that the **scale is reliable**.

The multi-item scales for self-expression and attitude toward social media sharing are reliable and valid.

The same process was performed to check the validity and reliability of the scale for the dependent variable, i.e. food photo-sharing intention. After checking the box for "KMO and Bartlett's test of sphericity" and for the "scree plot", these were the results of the factor analysis.

**KMO and Bartlett's Test** 

Kaiser-Meyer-Olkin M Adequacy.	aiser-Meyer-Olkin Measure of Sampling dequacy.	
Bartlett's Test of Sphericity	Approx. Chi-Square	865,140
	df	3
	Sig.	,000

#### Communalities

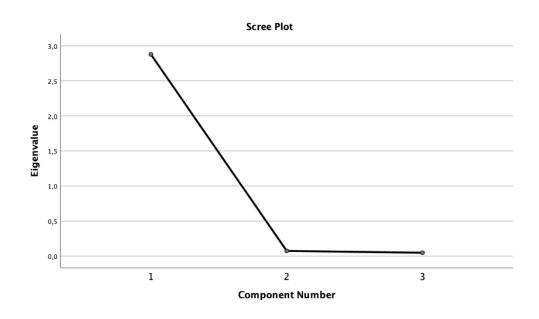
	Initial	Extraction
FPSI_1	1,000	,951
FPSI_1	1,000	,959
FPSI 1	1.000	.967

Extraction Method: Principal Component Analysis.

**Total Variance Explained** 

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,877	95,914	95,914	2,877	95,914	95,914
2	,074	2,477	98,391			
3	,048	1,609	100,000			

Extraction Method: Principal Component Analysis.



#### Component Matrix<sup>a</sup>

	Component
	1
FPSI_1	,975
FPSI_1	,979
FPSI_1	,983

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

From the KMO and Bartlett's test it is possible to see that KMO statistic=0.783 which is larger than recommended threshold (0.50). Thus, we can say:

H0: the correlation matrix is an identity matrix

H1: the correlation matrix is not an identity matrix

Since the Bartlett's test has a Sig. (p.value) =0.000 < than alpha (=0.05), it is possible to reject H0. Thus, the variables are related and therefore suitable for structure detection (data reduction). All communalities are above the recommended threshold of 0.60. As expected, one factor was extracted and has eigenvalue > 1, with a cumulative percentage of 95.914. The component extracted is the one that includes all the item of the scale. Thus, it is possible to conclude that the **scale is valid**.

To test the reliability of the scale a reliability analysis was performed.

#### **Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,978	,979	3

#### Inter-Item Correlation Matrix

	FPSI_1	FPSI_1	FPSI_1
FPSI_1	1,000	,927	,939
FPSI_1	,927	1,000	,950
FPSI_1	,939	,950	1,000

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
FPSI_1	7,73	19,400	,945	,894	,974
FPSI_1	7,72	18,078	,954	,913	,966
FPSI_1	7,85	17,427	,962	,926	,961

The results show that the Cronbach's alpha for food photo-sharing intention scale is .978, which is above minimum acceptable threshold (0.60). All correlations between items are also above 0.60. Thus, it is possible to conclude that the **scale is reliable**.

The multi-item scale for food photo-sharing intention is reliable and valid.

# H. Moderated mediation analysis

In order to investigate about the moderated mediation in the research it was used the bootstrapping software (SPSS Macro PROCESS) developed by Hayes (2013). In particular, it was utilized the model 14, specific for this kind of moderated mediation. Prior to the analysis it was checked the box for mean centering the continuous variables to avoid multicollinearity problems.

```
Run MATRIX procedure:
Written by Andrew F. Hayes, Ph.D.
                                              www.afhayes.com
   Documentation available in Hayes (2022). www.guilford.com/p/hayes3
Model
     : 14
        FPSI
        PACK
      :
   М
        S_EX
        ATT
Sample
Size:
      192
              OUTCOME VARIABLE:
S EX
Model Summary
                R-sq
                           MSE
                                               df1
                                                         df2
                               1121,0996
                                             1,0000
                                                                  . 0006
      .9247
                ,8551
                                                     190,0000
                          .8831
Model
                                                      LLCI
                                                                ULCI
            coeff
                         se
                       ,0959
                               -23,6759
           -2,2708
                                            aaaa
constant
                                                    -2.4600
                                                              -2,0816
PACK
            4,5417
                       ,1356
                               33,4828
                                           ,0000
                                                    4,2741
                                                              4,8092
OUTCOME VARIABLE:
 FPSI
Model Summary
                R-sq
                           MSE
      ,8840
                ,7814
                        1,0105
                                 167,1133
                                            4,0000
                                                     187,0000
                                                                  ,0000
Model
            coeff
                                                     LLCI
                                                               ULCI
                       ,2049
                               18,0475
                                           ,0000
                                                    3,2942
constant
            3,6984
                                                              4,1027
                                ,8691
6,2237
             ,3325
                       ,3826
                                           ,3859
                                                    -,4222
                                                              1,0872
PACK
                                                               ,6404
             ,4863
                                           ,0000
S_EX
                       ,0781
                                                     ,3321
                       ,0345
ΑŦΤ
                               15,9401
                                           ,0000
             .5501
                                                     .4820
                                                               ,6181
                       ,0137
                                3,4487
                                           ,0007
Int_1
             .0472
                                                     .0202
                                                               .0742
Product terms key:
                 S EX
                                 ATT
 Int_1
Test(s) of highest order unconditional interaction(s):
      R2-chng
M∗W
        ,0139
                11,8938
                           1,0000
                                   187,0000
                                                ,0007
   Focal predict: S_EX
         Mod var: ATT
                         (W)
Conditional effects of the focal predictor at values of the moderator(s):
              Effect
                                                                  ULCI
               ,3373
                                                       ,1561
    -3,1563
                         ,0919
                                  3,6722
                                              ,0003
                                                                 ,5186
                                  6,9570
    1,3438
                ,5497
                          ,0790
                                              ,0000
                                                       ,3938
                                                                  ,7055
    1,8438
               ,5733
                         ,0804
                                  7,1289
                                              ,0000
                                                       ,4146
                                                                 ,7319
```

Direct effect of X on Y

Effect se t p LLCI ULCI ,3325 ,3826 ,8691 ,3859 -,4222 1,0872

Conditional indirect effects of X on Y:

INDIRECT EFFECT:

PACK	-> S_EX	->	FPSI	
ATT	Effect	BootSE	BootLLCI	BootULCI
-3,1563	1,5321	,5465	,4096	2,5550
1,3438	2,4964	,4836	1,5211	3,4183
1,8438	2,6036	,4854	1,6214	3,5251

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
ATT	,2143	,0599	,0983	,3363

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2)

					,
Effect1	Effect2	Contrast	BootSE	BootLLCI	BootULCI
2,4964	1,5321	,9643	,2694	,4421	1,5134
2,6036	1,5321	1,0715	,2994	,4913	1,6816
2,6036	2,4964	,1071	,0299	,0491	,1682

---

Level of confidence for all confidence intervals in output: 95,0000

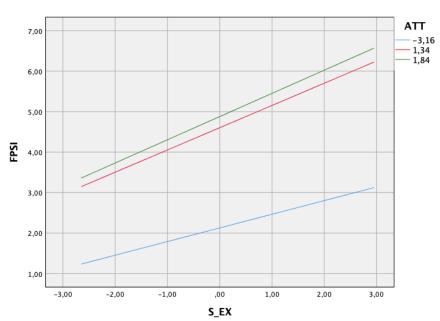
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis: ATT  $$\sf S\_EX$$ 

----- END MATRIX -----

#### Graph



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# **SUMMARY**

### Introduction

The rapid growth and development of online technology have eased the advent of many different types of digital activities to the benefit of organizations. Especially with the booming of smartphones and the subsequent adoption of mobile apps, the relationship between brands and their target audience have gained new fundamental digital touchpoints (Kapoor A. P., & Vij M., 2018; Zhao Y., & Bacao F., 2020). As a consequence of this, Online-to-Offline (O2O) services have recently gained popularity offering optimal solutions for both suppliers and consumers by providing a convenient and efficient service that combines offline consumption with the online environment (Zhao Y., & Bacao F., 2020).

Among the many industries that embraced the O2O commerce, the food industry is definitely up on the top. Aided by the outbreak of Covid-19 as well, which completely transformed consumers' food consumption habits, restaurants and many other players in the food industry have decided to radically change the way they deliver their service to customers and implement new O2O food delivery solutions.

In order to exploit such new dimensions, new marketing strategies appeared to be necessary as well. In a context where the relationship with the customer is not face-to-face anymore, restaurants' presence online has quickly become as important as their physical presence. Not having a direct relationship with customers makes marketing activities even more important, as they substitute the work of restaurant owners, maîtres and waiters.

Thus, considering the academic and managerial relevance of these phenomena, the main goal of this research is to focus on two main communication tools that strongly characterize the O2O food delivery market: food packaging design and food photo-sharing. The present study seeks to examine how a unique packaging design, in the context of O2O food delivery, can influence customers' food photo-sharing intention. In particular, it is hypothesized that a mediation effect of self-expression exists between the independent and dependent variable. Moreover, by including the attitude toward social media sharing as a potential moderator of the relationship between self-expression and food photo-sharing intention, this study helps in better understanding if customers' attitude toward social media sharing can influence customers' intention to post on social media.

# **Chapter 1: Managerial Relevance**

The practice of taking and posting on social media a photo of the food that is in front of us (i.e. food photo-sharing) has become the normality for many people, enabling a modification of how consumers approach to food (Spence C. et al., 2016; Zhu J. et al., 2019). Always more frequently people devote precious moments before their consumption to virtually depict the feelings that the food is giving them, following the mantra that "camera must eat first" (Koh J., 2015). Consumers, in fact, were found to give enormous importance to the act of sharing their dining experience (Atwal G., et al., 2019), regardless of whether this might take some time off their actual physical experience. This phenomenon has become of utmost importance for organizations in the hospitality industry as it represents free digital marketing to the benefit of the service provider. In fact, this kind of brand-related user-generated content (UGC) allows service providers to experience an increase in the extent of online information regarding the brand, a decrease in advertising costs and ultimately eWOM (Apaolaza V. et al., 2020; Zhu J. et al., 2019).

Even though the subject of social media and UGC have registered an increase in empirical research and in managerial attention, there is still little knowledge on food photography as a social media tool. However, since the year 2020 has brought unprecedented consequences on all economic and consumption-related activities, other dynamics have come into place and fueled the interest toward such phenomenon.

In fact, in response to the dramatical consequences of the Covid-19 pandemic, which enormously affected the supply and demand of the food industry, restaurants and caterers have rolled up their sleeves and radically changed the way they deliver their service to customers. Aided by the fact that consumers have also changed their consumption habits, it was registered a boost in the shift from "traditional in-store service to online-to-offline service (O2O)" in the food industry (Zhao Y., & Bacao F., 2020), which allowed restaurants to survive and still meet consumers' needs. In other words, for many restaurants food delivery was the only mean to survive. In such context, restaurant owners have become aware of the fact that what is delivered to customers' home now constitutes the only representation of the physical store and one of the most important touchpoints between the brand and its target audience. For this reason, their attention toward how the packaging in which the meal is stored looks like and what potentially communicates with its visual appearance is growing. Consumers were found to be generally more attracted and pleased by non-prototypical and creative packaging and thus potentially more willing to capture the moment with photographic documentations when they encounter such designs (Noble C. H., & Kumar M., 2008). Restaurants are taking advantage of this, using packaging as a way to communicate specific meanings and narratives, visually conveying the brand characteristics and personality and triggering the desired reactions.

### 1.1 The new food consumption demand and supply

Changes in consumption-related activities regarding food has been traced to significant socio-demographic transformations of the population: longer working hours, the rise of single-person households and finally the increase of women's workforce participation are the foundations of O2O food delivery success. Worldwide, the rise of white-collar workers, college students and single-person households have impacted on food consumption habits and meal preparation activities (Ana I. D. A., et al., 2007; Maimaiti, M. et al., 2018). The lack of time, interest or skills in cooking, that conventionally characterize this population segment, which is mostly composed of Millennials and Gen Z, might lead them in indulging to convenience-seeking tendencies and consequently in purchasing food delivery. According to the Just Eat (2020) Italian report, most of the orders from the platform are indeed made by people that age. Moreover, the growing food offer differentiation, that the new O2O food delivery platforms provide, enables the younger generation to also appreciate the convenience of having a diversified dietary intake, exerting limited effort (Maimaiti, M. et al., 2018). Moreover, with the rise of women's educational level and the subsequent increase in the number of full-time female workers, the time spent on meal preparation as well as the actual time spent by women at home has enormously dropped (Bowers D., 2000; Kang J. W., & Namkung, Y., 2019), contributing to O2O success.

Furthermore, from Martini L. & Di Lorenzo A. (2020)'s report it was found that individuals acknowledge the food delivery service of a restaurant from their social media network (43%), from O2O food delivery platforms (35%) and from the restaurant's official channels (e.g. website and social media page) (24%). This means that nearly half of the people that are ordering food delivery were first attracted thanks to their social media network, through for example UGCs or eWOM. In such context, food photo-sharing is probably the most powerful tool to engage customers, as it shows them the most unpolished, immediate and reliable version of the meal that they could get. Hence, it's not surprising that restaurant themselves are suggesting this practice to their customers.

The development of a new food consumption demand has been followed likewise by a change in the food consumption supply. With the goal of finding new sources of revenues and attracted by the potentialities of a fast-growing sector, many restaurants in 2020 started to join the food delivery market, choosing to back up their physical business with a digital counterpart. The food service industry has always been strongly attached to the physicality of the service that it provides, yet as many other markets in the recent years it has found useful opportunities also in the resources of the

digital world. The Just Eat (2020) Italian report explains that the Just Eat O2O food delivery platform has registered in 2020 an increment of 30% of restaurant partners, with a particular spike during the lockdown period. At the end of 2020 the worth of the digital food delivery market in Italy was around 800 million euros, but is projected to reach 1 billion euros in 2021 (Just Eat, 2020; Statista, 2020b). In Italy, the food delivery segment alone represents the 20-25% of the whole online delivery sector, registering a clear growth considering that in 2019 was at the 18% (Just Eat, 2020).

The service providers that were involved in the switch in food consumption supply in favor of delivery options are several. Full-service restaurants, characterized by table-service and the presence of waiters, were the ones that were affected the most by the Covid-19 restrictions, since their service strongly relied on physical interactions with customers (Deloitte, 2020b). The digitalization of the food service industry though has helped them in finding new sources of revenues and innovative solutions to overcome the problematic situation. Quick-service restaurants, which are those that focus on fast food offerings, instead were the quickest to react. Their menus can be easily adapted to the food delivery service and as such they were the least affected by the pandemic (Deloitte, 2020b). Lastly, cafés and bars, but also street food kiosks, were affected only partially by Covid-19 restrictions, registering a contained slowdown in terms of revenues (Deloitte, 2020b).

The increasing competition among players and the growing interest toward user-generated contents like food photosharing has been an incentive for restaurant owners to stand out through visual differentiation. When consumers were still allowed to visit restaurants, this phenomenon was expressed through evocative and thoughtful interior design, aesthetically pleasing plating and photogenic dishes (Apaolaza V., et al., 2020). The rationale behind focusing on the visual appearance of things consists in considering the normal customer as an influencer for its own social media network and thus in employing influencer marketing without paying for any particular influencer. The literature has found out that the restaurant's environment can influence the perceived quality and value of the dining experience (Apaolaza V. et al., 2020), customers' emotional arousal and also their willingness to pay more (Lin I. Y., 2016). Having considered this, it's easy to think that the same concept can be applied to the food that is delivered at customers' home too. Even though an intermediate step exists between the restaurant and the customer, which is not existent when the meal is consumed in a physical restaurant and that could potentially ruin the performance of the service, customers are still looking for that same level of amusement and quality. Food, especially for Millennials, is no longer considered a mere combination of nutrients and tastes but it's also a "social currency" (Harish D., 2017), in which the visual appearance matters just as the ingredients that compose it (Waitrose & Partners, 2016).

## 1.2 Case study: Delivery Valley

One of the most relevant examples of the success of the food delivery service and of the importance of new marketing tools like food packaging and food photo-sharing is definitely Delivery Valley. Delivery Valley is a brand created by Maurizio Rosazza Prin and Alida Gotta, two Masterchef Italian participants, who have foreseen the potential opportunities given by the world of dark kitchens before the phenomenon blew up even more due to the lockdown and the Covid-19 pandemic. The project of Delivery Valley is composed of many initiatives: they own three food laboratories in Milan that serve only to the food delivery sector and set themselves the ambitious goal of becoming food incubators for the best rising brands in the market and of helping brands in becoming full on kitchen media (Delivery Valley, n.d.). The business has been launched in June 2020 and has reached in only one year nearly one million euros of revenue (Montagnoli L., 2021).

Dark kitchen is an umbrella term for many other denominations, such as ghost or cloud kitchen and ghost or virtual restaurants, but essentially represent "food production laboratories not open to the public that serve only to the delivery

platforms or that belong to the platforms themselves" (Deloitte, 2020b). Dark kitchens eliminate space for diners in favor of an exploitation of the production resources for the food delivery market only. Deciding to invest in one of the dark kitchen's solutions doesn't only allow restaurants to deliver their service to customers' home, but it permits these service providers to eventually create a parallel and incremental channel, which can reach a newer demand and a different audience, as well as represents a way to reduce overheads costs (Deliveroo, 2020; Deloitte, 2020b). Thanks to this, restaurants are able to serve many more clients without the need to incur in additional expenses such as investing in the creation of a second business, buying another property or adding more dining spaces (Cho M., et al., 2019). Dark kitchens provide restaurants a "very low-risk expansion platform", that enables them to focus only on cooking without worrying to much about the operational difficulties of managing another brand (Faithfull, M., n.d.). According to Deloitte's Foodservice Market Monitor (2020) "this solution in some cases leads to an increase in turnover up to +400% for restaurants".

Although the success of Delivery Valley is strongly connected to their obsession for the qualities of the ingredients and in offering original tastes and bold recipes, their main strength and point of difference with the competition resides in their profound knowledge of the market and in their willingness to shape their business as an all-around food innovative project. They are not only a dark kitchen, they do not only own several food brands and they are not only a food incubator organization or a food media agency: they are all these things at the same time. As an incubator hub Delivery Valley has committed to help emerging interesting brands to get in the food industry, providing them with their know-how, their communication assets and, if necessary, even the location to come up with quality offerings. The other main activity that Delivery Valley is focusing on is the one of the kitchen media. Their project consists in offering marketing and communication activities for brands in the food, beverage or lifestyle sector, that aim at promoting their brand through Delivery Valley's products and marketing channels (Delivery Valley, n.d.). The idea is to use Delivery Valley's kitchen and offerings as a communication channel: brands in the food sector can co-create recipes with Delivery Valley's products, brands in the beverage market can be paired up with Delivery Valley's offerings and lifestyle brands can develop joint activities with them.

All these initiatives revolve around the core idea that the customer should be the key stakeholder and the primary focus for the organization. Delivery Valley shows this focus on customers by trying to provide them with the best customer experience on- and offline, by developing combinations of foods that are trendy, tasty, and innovative, by engaging in attractive social media campaigns or by continuously researching the optimal way to serve their products. Another fundamental element of Delivery Valley's success is the fact that it's incredibly marketing oriented. They put a lot of emphasis on the packaging design, not only to protect and preserve the food inside, but also as a marketing communication channel. Their designs are bold and confident, extremely creative and definitely unique. Moreover, food photo-sharing is greatly suggested and user-generated contents are all over their social media channels. Lastly, another important strong point of Delivery Valley is their networking. Being involved in partnerships with other brands allow the dark kitchen to create a collaborative network with other players in the market, as well as to display an open-minded corporate culture.

#### 1.3 Future destinations of the phenomena

Some of the behaviors that consumers developed during the lockdown will last longer than others and thus could greatly impact on consumers' food consumption habits. For example, individuals were found to be more likely to stick with the habit of working from home or in general of spending more time at home. This particular phenomenon will influence eating out occasions during the day and those connected to the work environment, such as lunch and happy hour

(Deloitte, 2020b; Morgan Stanley, 2020). Therefore, the "homebody mentality", together with the intense economic crisis that many Italians are struggling with, are going to impact both consumers' lifestyle and their food consumption demand (Deloitte, 2020b). The huge shift from dining-in to home delivery options is even leading many restaurants to have second thoughts about their physical infrastructures. Restaurant owners are starting to rethink their physical store layout: much of the attention is now addressed to the digital and "off-premises orders" and thus the kitchens, as well as the takeout counters more than the dining area now necessitate greater share of space (Deloitte, 2020d).

#### **Chapter 2: Literature review**

### 2.1 Online-to-Offline food delivery

The first to introduce this concept was Alex Rampell, CEO and founder of TrialPay, in August 2010. At the time, he explained the phenomenon as a tool that enabled to "find consumers online and bring them into real-world stores" (Rampell A., 2010), taking as example the e-commerce marketplace Groupon. However, throughout the years, the term has evolved and now comprise anything that involves brick-and-mortar stores and e-commerce (Tsai T. M., et al., 2015). The exact definition of the Online-to-Offline (O2O) technology can be retrieved from Yang F. X. et al. (2021) and it is the "consumption of products or services from brick-and-mortar businesses through online purchase". Compared to traditional e-commerce, O2O requires much more logistic efficiency due to its nature: the supply side needs to be extremely quick in covering the huge demand volume, as the lead time (i.e. the time between the online order and the delivery) is expected most of the time to be within hours (Dai H., et al., 2017). Moreover, the demand that suppliers are asked to cover includes both the physical and the digital one, increasing the difficulty of handling the logistics.

Among the many industries that took advantage of this technology, the food industry represents one of the most significant examples of successful O2O commerce. In fact, O2O technology can be particularly useful for time-bound and perishable services (i.e. restaurants, accommodations and taxi), thanks to its ability to overcome issues related to fluctuating demand (Dai H., et al., 2017; Roh M., & Park, K., 2019). Completely different from the practice of telephone ordering, in which loyal customers call restaurants for their order and the latter takes the full responsibility for the outcome quality and its delivery, O2O food delivery most of the times welcomes a third party, equipped with a digital platform and a delivery workforce, that manages hundreds of orders for just as much registered restaurants (Maimaiti, M. et al., 2018). The main advantage of such service resides in the possibility to outsource the whole processes of online ordering and delivery service.

The literature has highlighted two main motives that have led to the success of O2O food delivery: business developments and, as already analyzed before, socio-demographic transformations. An accelerated urbanization and the ubiquity of smartphones have pushed organizations of this industry to embrace the food delivery technology, which throughout the years have rewarded firms with a gigantic increase in sales revenue and decrease in food waste (Manuelli M.T., 2019), and customers with an extension of the food environment range up to 10 km (Maimaiti, M. et al., 2018).

### 2.2 Packaging design

The extant literature has enormously underlined the importance of packaging as a powerful communication tool between the brand and its target audience (Ambrose G., & Harris, P., 2017; Khuong, M. N., & Hong, T. M., 2016; Rundh, B., 2009; Wang, E. S., 2013). Packaging can attract consumers' attention (Orquin, J. L. et al., 2020), influence consumers' perceived food product quality and brand preference (Wang, E. S., 2013), evoke emotional responses (Candi, M. et al., 2017; Liao, L. X. et al., 2015), impact consumer brand awareness and repurchase intention (Khuong, M. N., & Hong, T. M., 2016), and originate positive word of mouth (Kumar, M., & Garg, N., 2010).

Packaging fundamental role in communicating brand meaning and in affecting consumers' behavioral intentions works extremely good for low-involvement products, like food (Underwood, R. L., 2003; Wang, E. S., 2013). Low-involvement goods, as opposed to high-involvement products, are characterized by limited decision-making efforts, which depends on the customer's personality, perceived risk and on the characteristics of the goods. From a retail marketing perspective, products with low value and high volume, like food and most FMCG, strongly depends on visual features that could attract customers' attention while at the point of purchase (Wang, E. S., 2013). Thus, visual differentiation for such products becomes critical in order to stand out from an increasing shelf competition (Ambrose G., & Harris, P., 2017; Underwood, R. L., 2003; Wang, E. S., 2013). The object of this research is actually to assess whether the same rationale of packaging differentiation could be applied to the O2O food delivery industry as well, which now enjoys growing competitions among players. Even though the two contexts are extremely different many reasons suggests that visual differentiation might be fundamental in O2O food packaging as well.

Considering also that, similarly to what happens for traditional food products in a retail store, food delivery packaging represents the first physical encounter with the brand prior to the actual experience of the meal, the communicating purpose of packaging seems to bear enormous importance. In O2O food delivery, between the two stages of online order and delivery customers build up anticipation and expectations of what they will receive (Moreau C. P., 2020). Hence, the layers that separate the customer from experiencing the product itself add up to the components that create suspense and excitement, but also brand identity and positioning (Moreau C. P., 2020). Being welcomed with a standardized, basic and unceremonious packaging can wreck customers' expectations of the brand, as well as ruin their dining experience. This idea is supported by another important phenomenon related to packaging that with the growth of social media has found fertile ground: the "unboxing". Frequently associated to the unwrapping of a present, the unboxing experience constitutes in the photographic documentation of the opening of a retail box, showing the content and its features (Thorsén A., 2018). The unboxing practice has forced e-retailers to not overlook the design and appearance of the packages, by keeping in mind that packaging has become an experiential happening, which contributes to the development of favourable attitudes (Ilich K. L., & Hardey M., 2020).

According to Underwood, R. L. (2003) packaging design consists of two components, graphics and structure. The graphical component includes the packaging colors, typeface, logos, illustrations and photography, while the structural elements comprise the shape, size, materials and ergonomics (Ambrose G., & Harris P., 2017; Underwood, R. L., 2003). For the purpose of this study, I will consider as "unique packaging design" any packaging that is clearly different from other packages in the category (e.g. atypical, innovative or out of the ordinary) regarding its structure, and/or that displays a personalized and distinctive to the brand visual appearance regarding its graphics (Mugge R., et al. 2014). The idea behind exerting effort in creating a unique packaging design is very simple: "being different from the competition or from consumer expectations is desirable" (Noble C. H., & Kumar M., 2008). Infusing novelty into a product allows the brand to stand out, convey stronger emotional appeals or provide a better performance (Ambrose G., & Harris P., 2017; Noble C. H., & Kumar M., 2008; Underwood, R. L., 2003). Graphics are the most effective packaging elements to generate emotional value (Noble C. H., & Kumar M., 2008), while "ergonomics" essentially refers to the science of designing packaging to be more easily handled, more comfortable and less likely to incur in damage (Ambrose G., & Harris P., 2017). In the context of O2O food delivery, food safety and hygiene and thus the concept of a solid and leak-proof packaging has always been a top priority for service providers (Maimaiti, M. et al., 2018). This is particularly true because, even though they are not involved in the transportation and delivery of the orders, in the eyes of the customers they are still considered liable for what they receive.

## 2.3 UGC and food photo-sharing

As opposed to professional food photography which is restricted to knowledgeable photographers and characterized by great amount of hours of commitment, food photo-sharing on photo- and video- sharing platforms involves anyone willing to take and upload on their personal profiles a picture or a video of their dining experience. Even though there aren't any specific rules about it, this kind of publication is most of the time characterized by huge instantaneity and immediacy, which sometimes leads to content being uploaded in a matter of seconds from the actual experience of the meal (Bouvier E., 2018). No particular tools and cameras are needed, most of the time just a simple smartphone and its built-in camera can make it work. Food photo-sharing doesn't necessary involves the portrayal of the food alone: people tend to capture what is on the background of the meal as well, including the table, the setting and the location. All these elements create the scene that is then portrayed into the photographic representation. Therefore, every single detail counts, from the colours of the cutlery on the table restaurant (Whittle N., 2017), to the design of the packaging delivered at customers' home.

It goes without saying that the mere sensorial feelings of what is the food consistency (i.e. touch), how it smells like, what is the sound it makes when it's cut and what it taste like cannot be fully conveyed through the screen. However, the spontaneity and closeness of the shared image still is able to create an "emotional, imaginative and intimate experience" between the one sharing and the one watching (Bouvier E., 2018). This happens because the experience shared on the platform is intrinsically human, something that can be easily imagined and vicariously felt. This is the actual point of difference between food photography in cookbooks or magazines and social media food photo-sharing: cookbooks create a "surreal and mouth-watering world" which yet doesn't invite the viewer into a shared experience among peers and into an immediate exchange (Bouvier E., 2018). On the contrary, images on social media elicit responses and opinions from viewers, who can leave their comment as immediately as the content is published (Bouvier E., 2018).

What arouse intimacy and involvement in such simple content is most probably the point of view chosen. Like unboxing videos, food photos and videos shared on social media are mostly shot capturing what the person is looking at. This first-person point of view allows viewers to dive more deeply into the scene and to feel the experience, even only remotely, as it is their own. Considering also the fact that food photo-sharing involves other elements of the ambience in the actual framed scene, it's not rare to witness objects being moved or lid being open, as well as food being touched, cut or grabbed. Thus, hands do commonly appear on the screen and they interact with the object being shot, enhancing even more the first-person involvement. Retail unboxing videos are the number one regarding this: they gently lure people in feeling what the subject is watching and touching (Mowlabocus S., 2020). But, I reckon that the same concept can be applied to food photo-sharing as well. The photographic documentation of the food delivered, which is in a packaging exactly like a retail box, essentially depicts the unveil of what happens to be inside, precisely like what happens in any unboxing video. Hence, I believe that what is applied to retail unboxing videos can be transferred to shooting food delivery packaging as well.

In addition to this, what drives consumers to post photos of food is the actual meaning that food has for people. The purpose of eating is threefold: together with its undeniable biological function, there is a social function and a self-expression function (Zhu J. et al., 2019). People enjoy eating, and they like to talk about it. Regardless of where this might happen, either at a restaurant or at home, photographing and posting the meal that one is eating generates a potential discussion where most of our conversations nowadays take place: on social media (Bouvier E., 2018). Moreover, the choice of what to eat, where and how the meal is captured tells a lot about the self, to the point that social

media users carefully assess what to project in the digital world as this gives clues about their personality and identity (Atwal G. et al., 2019; Bouvier E., 2018; Zhu J. et al., 2019). Food photo-sharing has been considered also a "performance of status" (Bouvier E., 2018), which subtly and indirectly express a certain lifestyle that the publisher possess. This concept is intrinsically linked to another important driver for the food photo-sharing phenomenon: uniqueness (Atwal, G. et al., 2019). The need for counter-conformity triggers consumers into the acquirement and utilization of goods and services that can differentiate them from others (Tian K. T., et al., 2001). Food photo-sharing can help in this regard in showing off what the person is experiencing, as well as which unpopular food choices has the person gone for (Atwal G. et al., 2019; Tian K. T., et al., 2001).

Restaurant owners have started to acknowledge the potential of "square meals" (Whittle N., 2017) and have been encouraging their customers to engage in such practice (Zhu J. et al., 2019). For them, this phenomenon represents a free and organic marketing tool, as well as a way to generate eWOM (Apaolaza V. et al., 2020; Zhu, J. et al., 2019), which in turn leads to the creation of a positive image of the brand at a very limited cost (Jeong E., & Jang S. S., 2011). In the hospitality and food industry, which is mostly characterized by intangible offerings that can seldom be tested in advance, the importance of eWOM is particularly relevant: customers pay enormous attention on reviews, eWOM and UGCs that comes from people that have indeed tried the offering before and that are considered more trustworthy than organizations (Cheong H. J., & Morrison M. A., 2008; Jeong, E., & Jang, S. S., 2011).

# 2.4 The mediating role of self-expression

The present study centers on self-expression as a process explanation for the potential effect of unique food packaging design on food photo-sharing intention.

Starting from the premise that food packaging bears a symbolic meaning (Karnal, N. et al., 2016), it was also found instrumental for the expression of the self through consumption (Underwood, R. L., 2003). According to Kim H. S., & Ko D. (2007) self-expression can be defined "as expressing one's thoughts and feelings, and these expressions can be accomplished through words, choices or actions". This happens mainly because, as Belk (1988) stated, "knowingly or unknowingly, intentionally or unintentionally, we regard our possessions as parts of ourselves". The idea behind Belk's pioneering work (1988) is that the inner core self can be broaden and extended thanks to our possessions, so that an "extended self" is created. Central in the researches about self-identity and consumption is also the idea that consumers use possessions and brands to uncover who they really are (Ilich K. L., & Hardey M., 2020; Jensen Schau H., & Gilly M. C., 2003; Schembri S. et al., 2010). Therefore, possessions and brands become vehicles to communicate a desired image of ourselves to others, as well as a way to make our intangible-self existent by associating it with tangible objects. In light of this, it's inevitable to think that, since our possessions explain who we are to others, they should convey a certain message by means of their design. According to Underwood R. L., (2003), both graphical and structural elements of a packaging develop three benefits to the brand and to the customer's self-identity: functional benefit, experiential benefit and symbolic benefit. At first glance, excelling in reliability, functionality and performance may not appear as a strategy that aims at stimulating customer's self-expression. However, several researchers have described how actually an enhanced functionality can benefit the consumer/brand relationship and consumer behavioral responses (Candi M., et al., 2017; Underwood R. L., 2003). Efficient packages allow to save up time, effort and money to the benefit of customers' satisfaction (Noble C. H., & Kumar M., 2008), while packaging that either fails to provide enough convenience or even provokes "functional disutility" influence negatively customers' experience with the product (Underwood R. L., 2003). Moreover, satisfaction with the functional features of a product was found positively related

to behavioral responses (Candi M., et al., 2017). In other words, being satisfied with how a packaging perform drive consumers to action.

As far as the experiential benefit, much of the kinesthetic and visual design of product packaging gets involved in this experiential point of view: both graphics and structural elements can evoke sensory pleasure and generate an engaging experience for the customer (Underwood R. L., 2003). A neuromarketing research has also found that aesthetically appealing packaging, as opposed to standardized packaging, is a stronger elicitor of affective involvement and reward, which subsequently drives preference, judgement and decision (Reimann M., et al., 2010). The fundamental concept behind the relationship between experience and self-expression is that "beyond merely performing as expected, the experience can be special, or meaningful" (Franzak F., et al., 2014). The intangible reactions that the experiential benefits provoke, such as emotional arousal or sensory pleasure, can be important drivers for social interactions and for the expression of the self (Berger J., 2011; Franzak F., et al., 2014).

Then, fundamental in the explanation of the relationship between a unique food packaging design and self-expression is the symbolic benefit. Customers "construct, maintain and express" their individuality with the symbolic resources of brands (Elliott, R., & Wattanasuwan, K., 1998): symbolism is not part of product appearance, instead it reveals meanings and associations beyond the product's tangible presence (Franzak F., et al., 2014; Underwood R. L., 2003). In order to include the symbolic meanings of one's possessions in the development of the self, consumers engage in consumption of products, services and experiences that holds symbolic associations for them and their social sphere (Elliott, R., & Wattanasuwan, K., 1998). According to one of the definitions presented in Luna-Cortés G. (2017), "symbolic consumption" is the "intention to project status, feeling of belonging or self-worth through the consumption of goods and services that transmit symbolic values". Hence, the literature has confirmed that consumers do use products, and their packaging, for the expression of their self-identity.

What restaurant owners are quickly acknowledging is that O2O food delivery packaging is not only the tool that merely transports and protects the meal, but it's also fundamental in creating narratives in which the target audience can dive in. Needless to say, the symbolism that a food packaging could convey can only be achieved if the service provider decides to exert some effort in customizing the packaging itself, working on either the graphics and/or the structure. A standardized, blank and impersonal packaging definitely could not elicit the same responses as a unique one. Considering also the dynamics that have taken place during Covid-19, which have forced restaurants to rely only on O2O food delivery and takeaway service, the symbolic elements of a restaurant design (e.g. exteriors, interiors and ambience), which are often used as a cue for quality, could be substituted by a symbolic and meaningful food packaging design, in order to deliver a similar dining experience even at customer's home (Apaolaza, V. et al., 2020). "Restaurants provide more than food to their customers" (Apaolaza, V. et al., 2020): they provide an experience, a narrative and several meanings that allow their audience to express who they are through that (symbolic) consumption.

Now that the relationship between unique food packaging design and self-expression has been outlined, it's time to understand if the mediating purpose of self-expression can be fully taken into consideration by analyzing the literature regarding the second part of the mediation: the relationship between self-expression and food photo-sharing intention. As Jensen Schau H., & Gilly M. C. (2003) explained in their article, "consumers acquire and display possessions as tangible symbols of identity", and they do so in real life as well as on the Web (Luna-Cortés, G., 2017). If we think about the main motives that drive individuals to use social media, which according to the literature are self-presentation, self-expression and documentation of personal experiences (Fox, A. K. et al., 2018; Luna-Cortés, G., 2017), the association between the intention to express a specific image of the self and the creation of social media content is

immediate. According to Ilich K. L., & Hardey M. (2020), in order for possessions to become accepted part of the identity, they necessitate visibility and projection to the public, something that social media excel at. The fragments of life that people share online cement in a public "online memory repository", enabling users to outsource memory of events, people, feelings and possessions (Belk R. W., 2013), as well as project a constructed ideal image about themselves to the world.

### 2.5 The moderating role of attitude toward social media sharing

Given the importance of social media and UGCs for the customer's expression of the self and for engaging in co-creation behaviors with the brands, for many researchers it has become critical to understand what are the underlying factors that influence the intention to perform such behavior. A large body of literature have focused on examining one particular determinant, that I reckon is interesting to introduce in the present research as well, which is indeed the attitude toward the behavior. The behavior that will be analyzed in this study is the act of uploading and sharing content on social media platforms, which is operationalized as "social media sharing". Social media sharing is not restricted to any particular content, it can range from brand-related UGCs to extremely personal content sharing, like capturing happenings with friends. Therefore, anything that involves the upload of some kind of content on one's personal social media profile will be considered an act of social media sharing. Food photo-sharing can - and will - be considered an act of social media sharing, as it involves the creation and upload of a brand-related UGC.

To my knowledge, the literature regarding the relationship between attitude and behavior has used different theories to explain this concept, such as the Theory of Planned Behavior (Ajzen I., 1991), the Technology Acceptance Model (Davis F. D. et al., 1989) and the Attachment Theory (VanMeter R., et al., 2018). The TPB shows that the central and immediate factor that guides behavior is the individual's intention to perform that specific behavior. Luckily, UGC and co-creation behaviors in social media within the framework of the Theory of Planned Behavior has already been analyzed by the literature. It was found that consumers who are highly involved in social media and that consider social media relevant and valuable for them, thus that most probably hold a positive attitude toward social media sharing, will be more likely to engage in co-creation behaviors (Cheung M. F., & To W. M., 2016; Kim E. et al., 2016). Moreover, according to Pelling E. L., & White K. M. (2009), since social media are intrinsically built to facilitate the expression of people's self-identity, if consumers regard that social media use is important for the expression of their individuality, thus holding both a high level of self-expression and a positive attitude towards the behavior, they will be more likely to engage in high-level use of them (Pelling E. L., & White K. M., 2009). Hence, the expression of self-identity has been recognized a predictor of intention as powerful as attitude (Pelling E. L., & White K. M., 2009). In the context of my research, it is hypothesized that individuals with a high level of self-expression - elicited from a unique food packaging design - and with positive attitude toward social media sharing would display greater intention to take a picture of the food and to share it on social media. Because people with a high level of self-expression seek out opportunities to communicate such condition, they are more likely to have the intention to generate UGC (i.e. food photo-sharing) that allow them to express their self-identity, and even more if they hold a positive attitude toward such behavior (Pember S. E., et al., 2018). The idea behind the introduction of attitude toward social media sharing as potential moderator is supported by the Technology Acceptance Model (TAM) as well, which essentially reinforce the concept that "an individual's intention to use technology is determined by his or her attitude towards that behavior" (Davis F. D. et al., 1989).

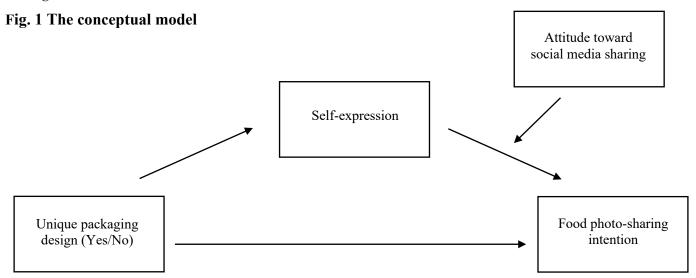
# 2.6 Research questions and conceptual model

While there has been some previous research on food photo-sharing in the environment of a physical restaurant (Apaolaza V. et al., 2020; Atwal G. et al., 2019; Zhu J. et al., 2019), little is known regarding its meaning in O2O food

delivery. In general, the literature lacks extensive research about O2O food delivery and consumption behaviors connected to it, as well as about food photo-sharing actions, because of the novelty of these phenomena. With the advent of Covid-19 pandemic, though, as explained before, O2O food delivery in particular experienced a huge outbreak, that lead restaurant owners to start acknowledging its potential. The latter is valid also for the food photo-sharing practice, which is increasingly suggested by restaurants themselves. Furthermore, no other author has ever studied self-expression as a mediator of a relationship including O2O food delivery packaging, and also - to my knowledge - no one has ever studied the variable of attitude toward social media sharing before.

In order to address these specific gaps in the literature, this research aims at understanding how a unique packaging design, in the specific context of O2O food delivery, might influence the consumer's food photo-sharing intention through self-expression. Moreover, I intend to study the attitude toward social media sharing as a potential moderator of the relationship between self-expression and food photo-sharing intention.

Given the previous discussion, I have formulated the following research questions: How does the uniqueness of a packaging design, in the context of O2O food delivery, influence food photo-sharing intention through self-expression? Does the attitude toward social media sharing moderates the relationship between self-expression and food photo-sharing intention?



**Chapter 3: Research methodology and analysis** 

The present study aims at understanding how a unique packaging design, in the specific context of O2O food delivery, might influence the consumer's food photo-sharing intention through self-expression. No one has ever analyzed such relationship before, nor has ever used self-expression as a mediator of such variables. Moreover, I intend to study the attitude toward social media sharing as a potential moderator of the relationship between self-expression and food photo-sharing intention, with the goal of finding out whether a moderated mediation exists.

As a result of this argumentation, I propose the following research hypotheses:

- H1. A unique packaging design, as opposed to a standard packaging design, leads to a higher food photo-sharing intention.
- **H2**. Self-expression mediates the relationship between unique packaging design and food photo-sharing intention.
- **H3**. Attitude toward social media sharing positively moderates the relationship between self-expression and food photosharing intention.

In order to verify the hypotheses, a conclusive and causal research is needed: the study will be carried out through an online Qualtrics experimental survey, for both the pretest and the main study. As shown previously in the conceptual

model, the independent variable in the research is unique (vs non-unique/standard) packaging design, while the dependent variable is food photo-sharing intention. I expect that a mediator variable, i.e. self-expression, will better explain this relationship and that attitude toward social media sharing will moderate the relationship between self-expression and food photo-sharing intention. The target population for which the study is designed includes all the people that have ever ordered from an O2O food delivery platform and that own at least one social media account, from which they could potentially share contents.

In order to better understand the effectiveness of the manipulation of the categorical independent variable, a conclusive and causal pilot study was considered necessary. The pretest consists of an experimental Qualtrics survey (https://impresaluiss.qualtrics.com/jfe/form/SV\_e5m1RVPsw4kaxBs), written both in English and Italian, which follows a within-subjects design. Therefore, the respondents, who were chosen using a snowball non-probability sampling technique, were exposed to both the conditions. To test whether the manipulation worked, a paired sample t-test on SPSS was performed. Being the pretest a within-subject research, the paired t-test was considered the best parametric test, as it compares scores of two sets of observations from the same group of respondents, which are then not independent from each other. From the analysis of the data set, it is possible to say that the pretest confirmed that there is a significant difference in Perceived Uniqueness between the unique ( $\mu$ =6.30, SD=.749) VS standard ( $\mu$ =1.05, SD=.278) packaging condition (t(75)=53.81, p<.001) among the sample of 76 respondents. Thus, it is possible to affirm that the manipulation of the independent variable was successful (see Appendix C for analysis).

The main study consists of a conclusive and causal research, performed through an experimental Qualtrics survey (https://impresaluiss.qualtrics.com/jfe/form/SV\_9sN3U8y7e9p0vpc), which follows a between-subjects design. The survey was written both in English and in Italian to allow a faster circulation and a better understanding (see Appendix D for full questionnaire). One hundred and ninety-nine people were presented with the survey: 4 were excluded from the research for the sample check about food delivery and one was excluded for the sample check about social media accounts. Other two responses were excluded, as one was completely blank and another one didn't pass the attention control. This leaves the total number of participants to 192. In order to test the reliability and validity of the multi-item scales used in the research a confirmatory factor analysis is needed. To avoid interdependence between factors, the factor analysis was done separately between the moderator and mediator and the dependent variable. Results confirm that all three multi-item scales are reliable and valid: self-expression ( $\alpha$ =.989), attitude toward social media sharing ( $\alpha$ =.969) and food photo-sharing intention ( $\alpha$ =.978) (see Appendix G for analysis).

Finally, a moderated mediation analysis using bootstrapping software (SPSS Macro PROCESS) developed by Hayes (2013) was utilized to examine the moderated mediation in the research. Having hypothesized that self-expression mediates the main effect of unique packaging design on food photo-sharing intention and that attitude toward social media sharing would function as a moderator in the relationship between self-expression and food photo-sharing intention, the moderated mediation model 14 in PROCESS was used to estimate such assumptions. Findings show that the direct effect of unique packaging design on food photo-sharing intention is not significant (b=0.33; t=0.86; p=0.38; 95% CI [-0.42, 1.08]). This means that unique packaging design is not a significant predictor of food photo-sharing intention (path c'). Thus, the direct effect of X on Y is not significant and H1 is not confirmed. However, results also explain that the indirect effect between X (unique packaging design) and Y (food photo-sharing intention) through the mediator (self-expression) is positive and significant, and the bootstrap confidence interval of the conditional indirect effects does not contain zero (ab=2.22; 95% CI [0.40, 2.55]). Unique packaging design emerges as a significant and positive predictor of self-expression (path a) (b=4.54; t=33.48; p=.000; 95% CI [4.27, 4.80]), and self-expression has

been found to be a significant and positive predictor of food photo-sharing intention (path b) (b=0.48; t=6.22; p=.000; 95% CI [0.33, 0.64]). Hence, there is significant statistical evidence of a mediation effect and H2 is confirmed. The results also reveal that it is possible to find evidence of moderation of attitude toward social media sharing in the relationship between self-expression and food photo-sharing intention. The interaction term is positive and significant (b=0.04; t=3.44; p=.000; 95% CI [.02, .07]). The bootstrap confidence interval of the index of moderated mediation also doesn't contain zero (index=0.21, 95% CI [0.09, 0.33]), indicating that, as predicted, there is significant statistical evidence of moderated mediation and H3 is confirmed (*see Appendix H for analysis*).

#### 3.1 Discussion

The results of the study confirm the hypothesized existence of a relationship between unique packaging design and customers' food photo-sharing intention. However, this relationship is not direct, as there was no significant statistical evidence of such direct effect, instead it is fully mediated by self-expression. This conclusion is not totally unforeseen, as there were no previous studies that confirmed a direct relationship between food packaging design and food photo-sharing intention. The extremely limited literature that address the food photo-sharing phenomenon has one common denominator, which is indeed self-expression (Apaolaza V. et al., 2020; Atwal G. et al., 2019; Bouvier E., 2018; Zhu J. et al., 2019). All articles include, although in different manners, self-expression as an important and significant component for food photo-sharing, which is also what is possible to deduce from the present research. Hence, the fact that a direct relationship was not found to be significant between unique packaging design and food photo-sharing intention is not going to interfere that much in the goals of the present study. In addition, it was found that the influence of self-expression on food photo-sharing intention is stronger for individuals with a positive attitude toward social media sharing, compared to those with a negative attitude toward social media sharing. Thus, as expected, a moderated mediation exists and it is statistically significant.

The present study allows to affirm that a unique packaging design, as opposed to a standardized one, definitely lead customers to the expression of their self-identity through that possession. This corroborate Noble C. H., & Kumar M. (2008)'s studies which posited that "acquiring non-prototypical products can be seen as a form of self-expression" and that "designs with more personality provide higher symbolic or self-expressive value". Consumers engage with possessions through meanings and associations that go beyond the product's tangible presence, projecting their status, need for uniqueness, feeling of belonging and self-identity through those symbolic consumptions, and developing an "extended self" that incorporates both the self and the possession (Belk R. W., 1988).

Considering the stimuli used in the research (see Appendix A), the symbolic meanings that could have motivated respondents to answer positively regarding the extent of their self-expression are several: for instance, they could think of that unique packaging design as an atypical, innovative and out of the ordinary product that perfectly fits their dynamic and original personality. Moreover, they could think of that unique food packaging design as a mean to communicate to others that they are purchasing a cool, fancy and glamorous product - which is (maybe) also more expensive - in order to express a desired impression of sophistication and richness. These needs to show a status, uniqueness and belonging, to become accepted part of the identity, necessitate visibility and projection to the public, which is what social media are meant for (Ilich K. L., & Hardey M., 2020; Luna-Cortés G., 2017). Individuals create UGCs, like food photo-sharing, to communicate the constructed ideal image that they developed through material possessions, or to express the emotional delight or functional satisfaction with what they managed to purchase. And they do so where most of their conversations take place: on social media platforms. In addition to this, findings demonstrated that the moderating effect of attitude toward social media sharing is indeed positive and significant. This means that, in the specific context of the

research, individuals with a high level of self-expression are more likely to engage in food photo-sharing actions if they hold a favourable attitude toward social media sharing.

Therefore, restaurant managers and caterers that operate in the O2O food delivery industry should devote special attention to the functional, emotional and symbolic meanings that the design of their packaging evokes. Given that a unique food packaging design is a form of self-expression that some individuals use to express their self-identity, restaurant owners should match the design of their packaging with consumers' self-concepts, improving their market positioning (Zhu J. et al., 2019), or they should find out which desired image about themselves consumers wish to communicate and modify their packaging design accordingly. From a managerial point of view, though, if you want people to take a picture of your product, you must provide them with something worth being photographed (Whittle N., 2017). Therefore, O2O food delivery restaurants should focus on providing food packaging that are functionally exciting, emotionally pleasing, symbolically meaningful, but most importantly photo worthy. As a consequence of this, restaurants could increase customers' willingness to take a picture of the food and to post it on social media, registering a growth of online information regarding the brand at a very limited advertising cost.