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Consumer Behavior and Corporate Strategies in the Decision Journey: Active vs Passive Consumers

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Abstract

The decision-making process of a consumer can be thought of as a journey that starts to satisfy a need that springs from a trigger and lasts until a purchasing decision has been made.

The objective of this study is to look into this consumer decision journey, focusing on how firms should profitably respond to the actual behavior of the consumer within this journey.

In fact, from a comparison between past and recent theories, emerged a clear disconnection for what concerned the role of customer. Nowadays, individuals have more and faster means of communication which attributes them a much more active position in the market than in the past.

In particular, individuals as consumers have a specific active role when gathering information about products. They behave like this because collecting information leads to a better awareness and a reduction of the uncertainty proper of every market segment.

As displayed in the model of this paper, the active role of customers is determinant in the strategical considerations of companies. Firms have to investigate on consumer behavior across the buying process in order to understand what really drives their decisions.

Is undoubted that customers need to collect information to make a more comfortable and conscious decision but, at the same time, is not reasonable to be totally aware of all alternatives and characteristics of products available in the market. To compensate the residual uncertainty, those people will rely on advertising campaigns, trying to reduce costs related to the research of information.

For this reason, the aim of the model is to find the optimal mix of resources that need to be invested to improve the quality of the production and those allocated in advertisements.

The equilibrium between the planification of budget expenditure for companies and the response of consumers during their active evaluation, leads to a new transaction mechanism explained by the consumer decision journey.

Introduction

Marketing notions continued to develop over the years thanks to the support of other disciplines like psychology or sociology, and the scientific contribution from mathematics, statistics, economics and game theory.

The interaction between these disciplines led to a better understanding of the actual behavior of consumers through the decisional process of buying.

Nowadays, consumers are not just passive targets of the tons of advertising and promotions that companies indiscriminately shoot in the market; rather, it is more appropriate to define them as active subjects that can address online channels, friends, trusted people or experts in order to have a more clear and precise idea of what they are going to buy and which could be their best alternative.

The purpose of this work is to understand which factors are crucial in the consumer's purchasing decision and what firms can practically do to influence potential customers to choose their product or service.

In order to do so, the traditional theory, known as the "Funnel" metaphor, as well as the McKinsey's Consumer Decision Journey will be presented, underlining the main features and differences, with a specific focus on the role of consumers as passive/active actors. In particular, an important argument will be on how the shift away from a one-way communication (marketers to consumers) toward a two-way conversation, made necessary for marketers to develop a more systematic way to satisfy customer demands and manage word-of-mouth.

Discussing and investigating on the critical aspects of this new marketing approach, will allow us to have a general idea of the factors that have to be considered by managers when planning their marketing strategy and allocating economic resources in a more effective way.

The analysis of those marketing theories will lay the basis for the elaboration of a theoretical model. The goal of the model is to provide a unified view of these theories: consumer behavior can't be reduced to a single attitude perpetuated; in fact, as the model suggests, in general, the consumer may have both an active and a passive self that coexist. Apart from other considerations to be done, the optimal marketing policy of the firm will depend on which of these two selves prevails in the typical consumer of that given sector.

Specifically, in the model consumers have an active role in the game as they tend to fill the gap between an initial limited knowledge of the product and the need for adequate information in order to be aware of their choices. To achieve this goal, consumers need to invest time, effort and, possibly, money.

Reasonably, it is quite impossible to have a complete consciousness of all the possible opportunities available in the market because, basically, the investment needed to meet this objective would be too high and not worth making; so, there is an implicit trade-off between the cost and the benefit of the consumer’s investment in information, that will, in general, lead the consumer to stop her research for information before having a complete idea of all the characteristics of all the products available.

To simplify the discussion, a consumer decision can be reconducted to two main complementary aspects: a rational side that responds to searching for information finalized to the reduction of uncertainty, and an irrational side related to the external influence of marketing campaigns from companies.

Rationality is in line with what stated by the Consumer Decision Journey during the active evaluation, on the other hand the irrational behavior reflects the assumptions of the Funnel.

As the model will display, when the customer reaches the optimal time value in consideration of many characteristics of the market segment, the consumer’s passive, or irrational, self comes into play, giving to enterprises the opportunity to influence their decisions with a successful campaign.

As the social context evolves, the market will also respond to new rules.

The detachment with the past occurred because of the new technologies and faster way of communication, giving the possibility for individuals to be closer to the companies as well as other consumers, creating a community in which both actors have many points of interaction.

This aspect is the real fulcrum of the thesis: customers pass through an imaginary path in which at every step there’s a way to exchange information, but not every step ahead is made by them.

The extent to which it happens, depends on the behavior of customers because, according to the sector of referment, will be more or less convenient to look for information or let the surrounding influence their decision.

In the mathematical model will be considered which exogenous factors have an impact on consumer’s decision making in a way that, according to the values assumed by those variables, can be explained the main behavioral trend of the sector in exam.

This represents an interesting indication for companies that, conscious of the obvious unpredictability of the single individual, can approach the market in a more efficient way.

Chapter 1: The Decision-Making Journey in the Past

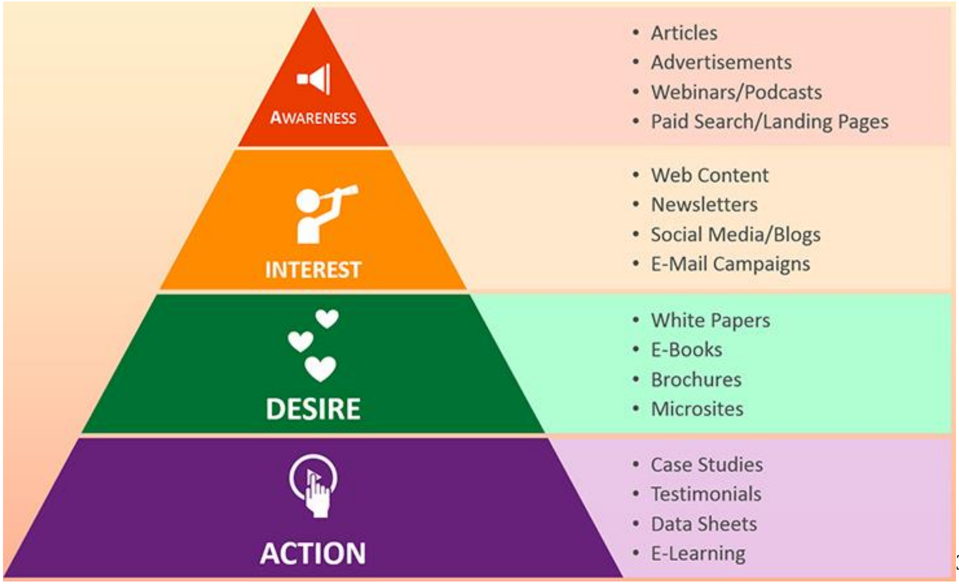
1.1 The Classical Theory, the Funnel Model

The concept of marketing as known today is a "young" field of studies, before the late 19th century, the idea of a team to sell products and services to people was unthinkable.

Funnel, that in the primitive version was the AIDA model, has been one of those tools for understanding buyer behavior, in which the main idea was that prospective customers entered at the top of the funnel, and, step by step, were proceeding through additional stages until the purchase. The AIDA model was developed by the American businessman, E. St. Elmo Lewis, in 1898. The original main purpose was to optimize sales calls and in particular the interaction between seller and buyer[1].

It could be described as a communications model rather than a decision-making model, in which the goal is to give some indications to companies on how and when communicate during each step, taking into account the multiple platforms of communication available and engaging customers at different touchpoints in a different way according to the stages in which are involved. This model has been used as a start, to help plan a tailored and targeted communication campaign.

For decades the sales process was in line with this kind of buyer's journey, characterized by four main stages[2];



[3]

[1] Lewis, E. St. Elmo (1899)

[2] R. Riedl, G. Ueding (1992)

[3] AIDA model, steps and touchpoints

- Awareness: The product must attract the consumer's attention. Is necessary to know the existence of a product or brand in order to buy it.
- Interest: Salespeople tease curiosity on potential customers making theam learn more about the product or service. The attention of the potential customer is piqued after the first stage so their interest in the product or service should be aroused.
- Desire: After being exposed to many external influences, customers decide whether they need it or want it. The seller’s task is to persuade the customer that they want to own this product. It could happen, in the most optimistic case, that the advertisement or the product itself creates the desire to purchase.
- Action: Purchase decision. If all the previous steps went well, this desire must be transferred into an action, the final choice.

In the AIDA model sales representatives have a large role to play in the customer’s journey because they’re the only responsible for creating awareness, interest and desire for the passive customer. Techniques and tactics adopted by salespeople to achieve this were aimed at convincing the customer they wanted or needed to have what were selling.

So, AIDA model attributes a large control to the industry where companies are the only ones deciding on techniques and tactics to use with a customer. The only aim of sales reps is to tell customers what they want, and the only reason people haven’t bought that specific brand is because they haven’t heard about that company or the advertising wasn’t enough effective respect to competitors.

The buyer journey[4] is the path taken by the person buyer when he discovers a product and decides to buy it. The term was first introduced in the book "Inbound Marketing" by Brian Halligan and Dharmash Shah and a framework can be considered to recognize the progress a buyer makes in the direction of the purchase decision.

The three stages that characterize it, are the awareness of a need or problem called TOFU, top of the funnel, the second is the evaluation of the ways to solve that problem or MOFU, middle of the funnel, and last, the decision or BOFU, bottom of the funnel, which leads the buyer to choose a precise product or service offered by a specific brand.

In the past, the approach generally accepted in the business, was to push marketing toward consumers at each stage of the process to influence their behavior. Brand impressions were

[4] B. Halligan, D. Shash (2015)

formed with the mere effort of the company through touchpoints such as advertisements, word of mouth, and product experiences. In part, this is still true, but consumers rarely take such a linear journey. They tend to move outside the funnel because the way they research and buy products changed in the last years.

The funnel concept was created long before social media, blogging, or digital content marketing ever existed so, even if its application is impossible nowadays, the funnel served as a primary model that tried to explain how a prospective customer moves from initial brand awareness to purchase.

1.2 Market Development: Fallacies of the Funnel

Nowadays the rise of the Internet has shifted the balance, opening to customers a roughly infinite range of possibilities to take information and gain more control.

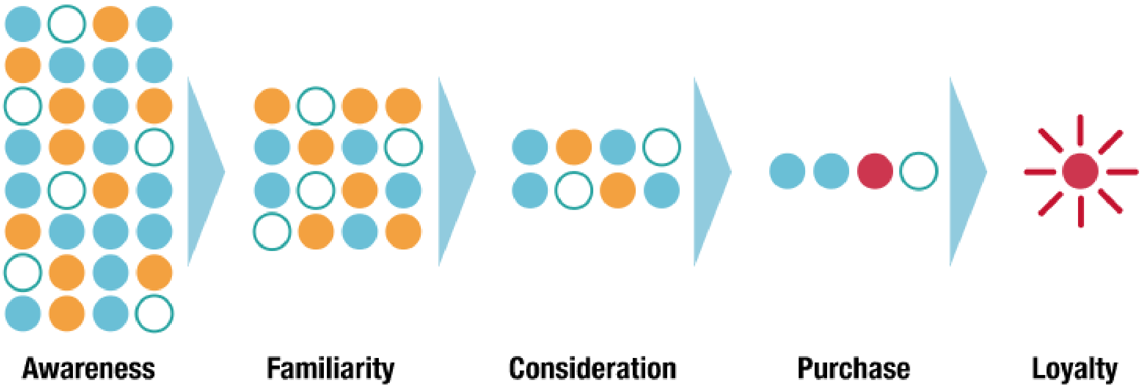
Changes in buyer's journey have multiple reasons. It's hard to pinpoint a single factor in the shift in customer attitudes: internet and a change in access to information, increasing awareness of marketing techniques or customization, are a few of the causes.

The main change is that customers are skeptical of brands. They're able to identify marketing techniques, and they prefer to verify claims asking for the opinion of friends or looking for feedbacks on review websites and social media. Moreover, with the Internet at their fingertips, they can most definitely fact-check statistics and compare data quite easily.

When it comes to learning about new products and services, customers are also more independent. When they do reach out a company, buyer might already have a good idea of what is looking for. So, the real job is not to influence them and being noticed, but to help them finding a solution to the challenges they face.

In the last century there has been an impressive number of theories and models of customer journey, but the most traditional marketing models can be treated as a group that considered four (plus one) moments of consumer choice[5]:

[5] Models of Customer Journey (2013)



[6]

- Awareness: knowledge and awareness on the part of the customer of wanting to satisfy his own need with a specific product supplied by one or more companies known by him or otherwise physically or digitally found;
  According to this model, the customer is aware of being able to find in a product the solution to his problem or the answer to his need. He comes to know that the product is made by one or more companies through different channels;
- Familiarity: The opportunity to have a recognizable product in terms of reputation, colors, logo, naming and features among a range of possibilities on the market, online or offline, all of those make the product familiar and therefore recognizable in the wide range of products offered;
- Consideration: The phase in which the consumer is oriented towards a certain product, looks for information on intrinsic and extrinsic characteristics and eventually compares them with other products, as well as comparing the price. It is the phase in which the consumer finds himself to choose between the different brands;
- Purchase: The moment of actual purchase is true. After a more or less long period that runs through the phases described above, the consumer buys. This way the company achieves the first of its two major objectives that has managed to transform a need into a purchase;
- Loyalty: This concept wasn't even in consideration in the very primitive models at the beginning of 20th century. Consumer loyalty today is longed for by every company. This phase also summarizes activities that actually took place previously, such as the information received during the purchase phase, the simplicity in finding them, the quality of the same, the caring service, but also everything that happens after the purchase, from the assistance service to the ability to arouse interest in related products.

[6] A traditional funnel-shaped diagram

Is represents the second main objective of the firm after the sale, encouraging the consumer to become faithful to the brand. The key distinction between funnel and more developed models is in the role of after-sales services, as in the case of customer support, and the company's ability to generate interest with related products.

Funnel is linear, drives to purchase. In reality, consumers are going all over the place, in or out stores, talk to people, so the experience is constantly being reshaped, gradually looking for more info or different places. Companies need to be there to intercept those consumers when they are in a given stage of the decision journey.
So, funnel is a reductive process where a consumer is brought down through a single choice, this is a conceptual mistake because brands are coming in and out the process all along. Even if a brand has not special advertising, there are many more opportunities to get into the consumers' mind and be part of the journey. For those reasons, the model described is out of date considering the customer as still too passive with respect to the market.

Today users have numerous tools to go through the decision journey, from Internet connections, to many devices like Smartphone, Tablet and other kinds of tech devices wearable or available at home or in the car being always connected everywhere.
Due to these aspects, there's the urgency to trace a longer, tortuous, but increasingly natural route for consumers. Nowadays there's no clear distinction between online and offline making boundaries less marked and difficult to distinguish.
Consumers are no longer evaluating or making purchases just because are influenced by how much marketing messages are able to sway them, they move through a set of touchpoints before, during, and after a purchase. There's a real conversation between buyer and seller and not just a unidirectional set of impulses, it's a much more complicated path where customers are actively seeking out information on their own.
Consumer's expectations are changing in a way that for the funnel model became impossible to adapt. It fails to capture all the touch points and key buying factors, above all, the post-purchase experience is completely missing.
The emphasis placed on building and maintaining relationships with consumers is one of the main distinctions between traditional funnel and consumer decision journey. The traditional funnel suggested that the journey had to be shaped through messaging that is relevant exclusively in a predetermined stage. Most recent theories are about being able to identify where a consumer is in the decision journey and try to provide messaging that better fits for that given moment. This new approach, contrary to the funnel, doesn't stop to the initial purchase but

accounts also for experiences consumers have with brands that affect their long-term loyalty. By understanding the decision journey, brands stand much greater chance of reaching consumers at moments of maximum influence.

Funnels produce customers, but don't consider the active role of those customers and how can help the company grow wasting all the momentum built acquiring them. They are seen only as an afterthought[7].

Starting a new journey from the very beginning each time represents a cost for the company because is not able to take advantage of loyalty and advocacy that satisfied clients could share. Nowadays, customer's main source of info is other customers, so the business can be imagined like a flywheel[8] pushed by customers' satisfaction.

For such reasons, the shape of the buyer journey has changed becoming even more complex.

In the old model, customers entered at the top of the funnel and exited at the bottom in a one-time process in which, after a purchase, companies were no longer concerned with consumers.

The positive aspect of the sales funnel was to give to sales team a direction to follow and that's the reason why has been adopted for so many years despite declining in effectiveness.

This sense of direction encourages some people to still adopt this model even if doesn't work anymore.

All the emotional aspects that are often addressed in advertising and recognized by advertising psychology as well as targeting and socio-demographic background that are essential marketing considerations, don't play any role in the AIDA formula. Hence, it doesn't consider that the sales strategy has to be quite diversified from a customer to another because what is adapt for a new customer is not valid for a more experienced consumer.

Another criticism: the step-by-step model provides a relatively fixed sequence of individual steps. It does not take different paths; this is why non-hierarchical multi-process models are mostly used today in advertising impact research.

In practice, a sales process does not have to be linear. During the course of the customer journey, various media and devices can be used in more stages reconsidering many times the same piece of information, until an interested party becomes a buyer. Advertisers that are working today with the AIDA model, should always be aware of the fact that it is actually a phase model that cannot represent all individual aspects of the purchase process or advertising impact process.

[7] Iliyana Stareva - 2018

[8] Jon Dick - 2018

Nevertheless, funnel shaped model covers an important historic role representing the sales process as a phase model for the very first time, laying a groundwork for modern advertising. At the center of the purchasing process there was the customer, but the real protagonist of the model was the company and its relationship with the buyer.

As already said, the consumer is no longer passive with respect to the market, he has increased his awareness and is in possession of a plurality of tools to make his choice.

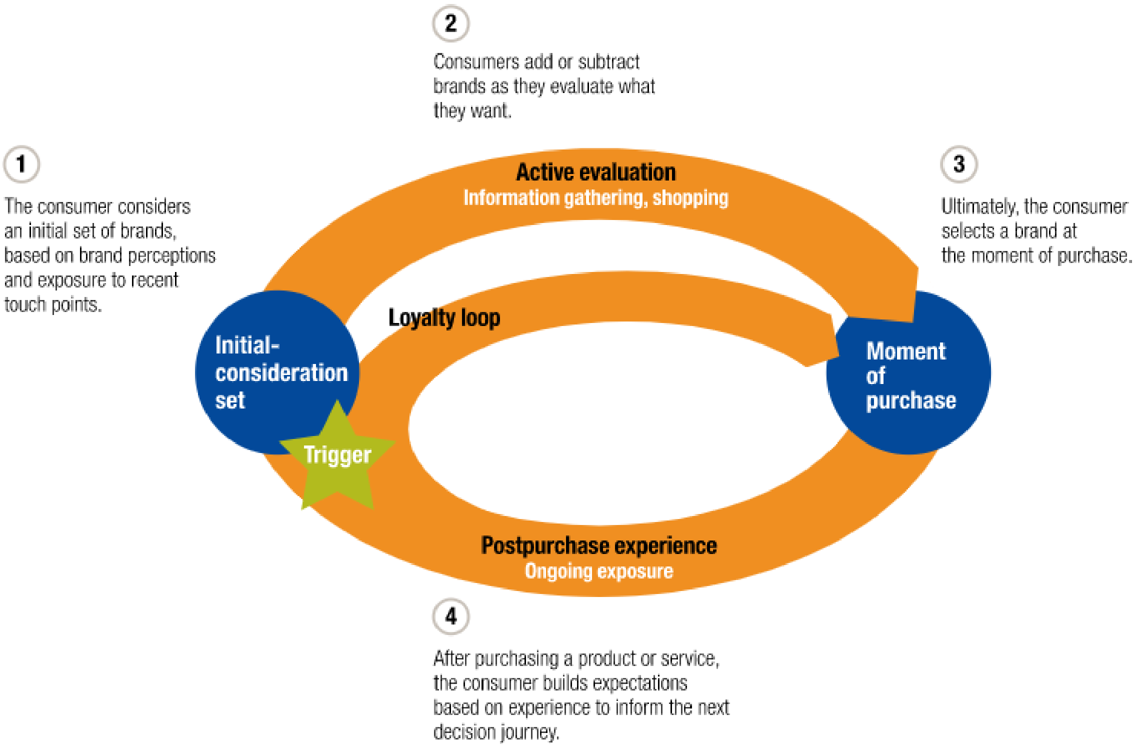
Chapter 2: The Consumer Decision Journey

2.1 Concept and Features

In 2009, McKinsey introduced a new circular purchasing process model that replaces the traditional linear funnel stating the main concept that a consumer has to be under the spotlight and placing brands in front of a continuous consumer judgment.

The Customer Journey or CDJ is the itinerary through which customers go from the first contact with a particular company, on a given channel, until, by going through one or more touchpoints provided by the company itself or by other consumers, make the purchase decision.

It is therefore non-linear, meaning that the actions overlap and repeat until the final purchase decision; differently from a funnel, it highlights the importance of word of mouth by incorporating factors such as customer loyalty, and the post-purchase experience[9].



[10]

[9] Court, Elzinga, Mulder, Vetvik (2015)

[10] Consumer Decision Journey from McKinsey and Co.

Risks related to the marketing activities are mainly two: waste money and alienate consumers. In order to avoid those problems, the most important thing to do is to operate on marketing activities to make sure that are aligned against how consumers research and buy products.
There's the need to step back and reevaluate both how consumers were going through the decision process and what companies needed to concentrate on, in order to make the marketing efforts more productive.
Companies have to select the messages to transmit to the public considering where there are the best opportunities: the aim of messaging is about trying to be into the initial consideration set and provide the right facts and testimony of what consumer is looking for when reaches the active evaluation stage.
There are five considerations or areas of alignment for businesses in Consumer Decision Journey that could be resumed as following: set priorities by stages, target the message to the stage with a particular attention on the differential approach to initial consideration set and active evaluation stage, invest in consumer-driven vehicles. win in the store that is nowadays one of the few physical direct contacts with customers and finally provide a seamless brand experience.

Due to the digitalization era we have many new channels for marketing but what companies don't understand is that they don't need to spread their limited budget on more and more channels rather they need to act completely differently (with whole different framework, strategies, planning, new roles in the way organization operates, new processes, measures).
Is the consumer the one really making decisions and taking all steps; the role of the marketer is limited to help buyers through the journey and figure out what they need to get to the next step. Consumers start with some time of consideration on whether or not they even want to get engaged in a category, then there's the evaluation: go online, talk to people, go into a store, collect information, get the data, everything they need to make sure they are feeling confident about their decision and understanding what's right for them in order to get good value. Then they buy (online or in-store), experience the product, the range of services and, if the experience goes well, they may advocate on behalf of that, which is something that marketers have explicitly built in their strategies considering that now consumers are putting rating and reviews. When one person advocates, becomes the father of another potential customer. If clients feel they really want to be involved with, they are going to bond and extend their relationship building a loyalty loop.
So, what company have to ask themselves is if they are really aligned with what consumers want.

Knowing the time and the exact channel in which the first contact with the customer takes place, each company could be able to better direct the investments by programming them strategically. The customer, when he decides to look for a product or a brand, feels the urgency to satisfy his need. Knowing the route he takes, not only allows the optimization of investments, but also allows him to interpret the needs of his target and even manage to anticipate them and respond first.

The new decision journey is much more complex than a linear funnel, with multiple inlets of information. The approach explains the decision-making process as a loop within a loop, with one initial purchase decision journey that feeds into a loyalty cycle after purchase.[11]

The increasingly complex customer journey presents three options that the consumer has, to purchase:

- Online research, offline purchase[12]: The consumer searches the net for information on what he intends to buy, makes comparisons between choices, looks for analogies with already known products, reads reviews, after that buys the desired goods or services in a physical store;
- Click & Collect[13]: The consumer searches online, buys on the Web but collects the products in a physical store or at a "collection point", as close as possible to his home;
- Try & Buy: The user, in this case, chooses to try the product in a physical store and then buy it online, perhaps while still in the store.

The channels that users explore along the way are the contact points that can be both digital and physical. In both types of channels we can see that some are managed directly by the company (ADS campaigns, landing pages, call centers, sales points, newsletters etc.), many are managed by other subjects that are not dependent on companies (reviews, word of mouth , comments in online communities, blogs, third-party sites etc.).

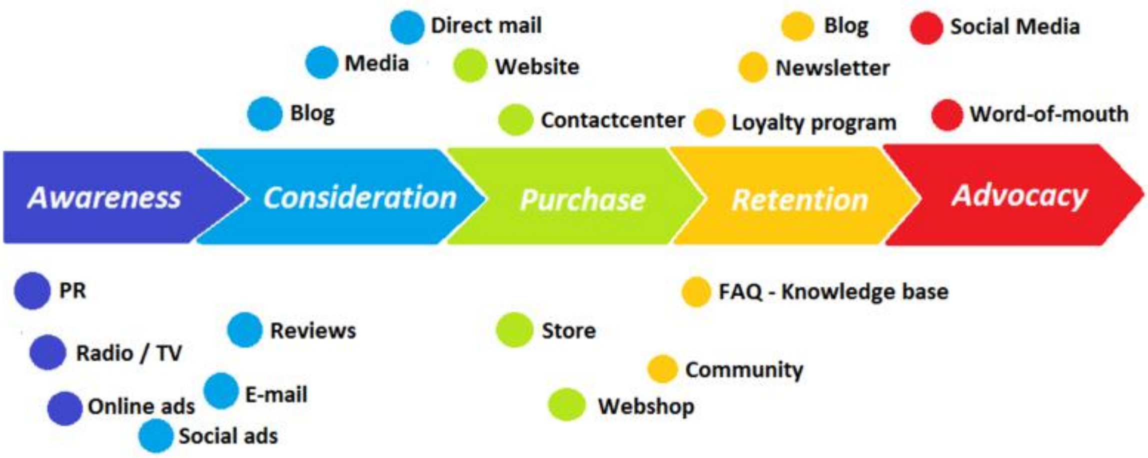
For this reason, nowadays, it’s necessary to have an increasingly broader vision, able to consider the aspects and the complexity of a rapidly changing world in order to anticipate needs and optimize its products for ever more demanding consumers.

[11] BMT Micro - 2016
[12] White Paper Think Insights with Google - 2011
[13] M. Miquel, M. Frasquet, A. Descals - 2018

Companies, taking into account the customer-centric multi-channel experiences, are required to have an in-depth knowledge of the target and to do that is necessary a strong identification with the client: in this context, common sense can do much more than hyper-segmentation, which too often results in an overabundance of data collected in spite of their concrete utility.
Knowing how to interpret customer needs is a fundamental component for every company. Being able to respond to their needs is equally important and it is possible to do so by offering innovative products that are both simple and intuitive. The engagement occurs through many moments across the decision journey in which demand and supply interact, sharing data.

2.2 Touchpoints

A point of contact, or touchpoint is defined as every single interaction that a potential or existing customer has with a brand, before, during and after the purchase.



[14]

Identifying the contact points is the first step towards creating a map of the client's journey and satisfying every need along the way.
In order to do that, they can be sorted in macro areas according to which aspect to underline.
On one hand there are consumer driven touch-points as talking to friends, internet, word of mouth or research sites, on the other hand the consumer passively or unconsciously is influenced by advertising or can be affected by the presence, in consumer-driven information sources, of company driven ones, that are necessary because the business has to be present during active evaluation or won't be added in consumer's consideration.

[14] Touchpoints during a purchasing process

Another broad classification can be done considering different stages of the consumer journey and which factor can influence the decision-making process.

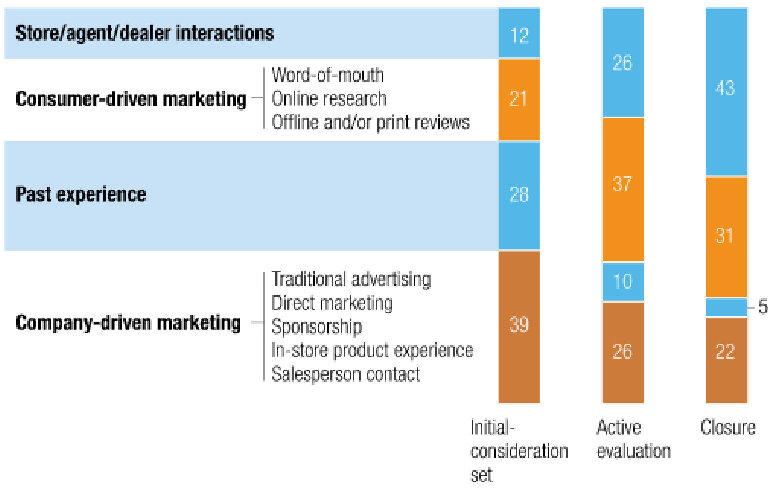
- Before the purchase: social networks, ratings and reviews, testimonials, word of mouth, community's involvement, advertising, marketing campaigns.
- During the purchase: shops or offices, websites, catalogs, promotions, staff or sales team, telephone system, sales points.
- After the purchase: billing, e-mail services and marketing, assistance and support team, online help centers, thank you cards.

Nobody, before buying, interacts with just one touchpoint: the number of interactions varies depending on the complexity and incidence that the purchase has on the available budget. For example, those who want to buy a car tend to relate to more touchpoints than those who want to buy a pair of shoes. Nevertheless, some points of contact are hybrid in a shopping experience, it occurs when the physical touchpoints are mixed with the digital ones.

So, it's true that some touchpoints are more important than others, for this motivation a reasoning on the touchpoints ends, inevitably, to start a business strategy discourse.
In the perspective of a brand positioning strategy, for example, it is important that the creation and management of the touchpoints is consistent with the chosen positioning.
In this sense, touchpoints play a very important role: to provoke emotions. A touchpoint must arouse emotions because the brand could creep into the minds of the customers and influence the purchasing behavior, so businesses tend to integrate and mix together multiple points of interaction to give strength to the brand that lasts in the present and the future.
Knowing the points of contact is only half of the work: to improve the level of customer satisfaction, each point of contact has to start an experience that is as enjoyable as possible reminding that the entire trip, as a whole, depends on the customer's expectations.
In order to find out what works, is possible to conduct customer feedback surveys at each main point of contact or configure a customer experience management software. Anyway, the most important point is to don't lose sight of the big picture and always consider the journey of the customer as a unique and dynamic system.

Two-thirds of the touch points during the active-evaluation phase involve consumer-driven activities such as Internet reviews and word-of-mouth recommendations from friends and family.

Most-influential touch points by stage of consumer decision journey, for competitors and new customers, % of effectiveness[1]



[1]Based on research conducted on German, Japanese, and US consumers in following sectors: for initial consideration—autos, auto insurance, telecom handsets and carriers; for active evaluation—auto insurance, telecom handsets; for closure—autos, auto insurance, skin care, and TVs; figures may not sum to 100%, because of rounding. [15]

2.3 Consumer Engagement

Involving the consumer is a fundamental task for any brand that wants to build a lasting relationship over time. Companies must focus simultaneously on different aspects as winning disruptive or niche competitors able to provide customized solutions for the consumer and intercepting every phase of the path of loyalty.

Consumer engagement is largely a response to company behavior and can be described in five phases that explain how this process works.

- Interest: the first contact of a customer with the company depends on the interest of the consumer with respect to the products or services that the firm offers. This interest hinges on how that company is perceived or its core products are important to him.
- Experience: a positive experience occurs when customers manage to execute transactions in the way they prefer. In order to involve customers, for the company is crucial to guarantee the best possible experience in any phase of the customer journey. That could happen also if customers feel understood and supported by the company and consider it able to keep its promises.

[15] Diagram representing touchpoints at each stage of the journey

- Evaluation: the implicit step that occurs right after an experience, is the evaluation of that experience that consist in the feelings and sensations related, so it represents a fundamental meaning as customers perceive that experience and, consequently, the assessment they give of it. The impression a customer had is an indispensable step in order to keep a relationship with the brand and develop trust in the company.
- Immersion: is a measure of how much the consumer is involved in the business, in terms of love to the reference companies, need to acquire information and share opinions about product or services. Involvement can be difficult to obtain, because it is achieved quite often on emotional and non-rational components but still is a fundamental aspect that leads the customer to be first among the brand's stakeholders.
- Loyalty: the final step is the main objective of the firm, it represents, to some extent, the sum of the four previous ones. A loyal customer is a resource for the company because will return to repurchase the same product or benefit of the same service and at the same time cares much about the enterprise and will promote their activities.

Have a clear idea about whether rationality or emotions are driving purchasing decisions and, more generally, the relationship with a brand, is challenging but a necessary step.
At the beginning of the consumer decision journey, it is probable that rational components are running the process, such as the positive reputation of the company, the catalog and offers or transaction security; attitude that is quite understandable due to the fact that consumers never have a complete awareness of the sector, in particular when the journey starts. In fact, the more is proceeding along the path of loyalty, the more non-rational components intervene letting external influences of third parties and advertising persuade consumers directing them towards a precise brand.

However, for those reasons is clear that consumer involvement largely depends also on the reference sector. In general, it is easier to get involved by a company that sells tangible goods, compared to those who offer services that require less touchpoints or only a single moment of interaction.
The reference sector is also a discriminating factor that influences the nature of the monogamous or polygamous relationship with the company. The more a sector is essential for the customer's daily life, more customers tend to establish a lasting and trusting relationship with a single brand. A different example like retail, is a market sector in which customers tend to be polygamous relying on numerous companies at the same time and are more likely to change brands frequently even if or maybe because it’s the same type of product.

Additional products and services are other important elements to consider in creating a solid and lasting relationship with the company. The use of additional features and services increments in a significative way the number of interactions between buyer and seller, having a greater bond with the business. It shows the existence of a correlation between the number of products and services purchased and the level of customer engagement, a consideration that is true only if those additional services and products have also a good quality.

Touchpoints also have a significant role in determining the level of involvement between companies and customers. More generally, however, who uses both traditional channels and digital channels, reaches, not surprisingly, better indices; an omnichannel strategy is the only one that can guarantee the highest consumer engagement.

Those who interact more often with the company do so through several channels indifferently increasing at the same time the sense of satisfaction and the involvement with the company destinies. Those who have less interaction with the brand tend to do so exclusively with the traditional channels and are more likely to be less satisfied.

A strategy is an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage[16]. A new game strategy can be defined as the set of activities that creates and reallocates value in new modalities. That's the reason why customer experience management can improve sensitively the performances of a business because could be the base for the development of a strategic innovation focused on what to offer to the customer rather than engaging in their experience.

To better understand how the consumer decision journey works, it has to be separated in its main steps and make a deeper analysis of them.

[16] Ireland and Hoskisson, (2007)

2.4 Analysis of the Main Phases in the Consumer Decision Journey

As already said, consumer decision journey is a dynamic process that starts even before the manifestation of a need, is only after a set of triggers like ongoing exposure, word of mouth, feedbacks and advertising that a customer gets to the moment of purchase and, eventually, becomes loyal to the brand in case of positive post purchase experience. The two basic keywords to keep in mind are immediacy and capability.

Remembering that the journey is personal for every customer and unique every time also for the same subject but can be shaped from companies following cornerstones as real-time automation, in the moment interaction, proactive intelligence and engagement innovation.

The challenge is to pull together journeys, bring everything together, not only the data but also policy, especially financial services institutions, technology and people, marketing functions. In order to achieve this goal, companies need to create cross functional teams, shift their organization and develop project mix.

For those reasons, analyze in greater detail the main steps of the consumer journey can be helpful to have a better idea of the issues and the challenges that firms have to face.

- **Initial Consideration Set**

The initial consideration is the collection of brands that consumers have in their minds at the moment that they are triggered to make a purchase.

Consumers tend to fall back on the limited set of brands that have made it through the wilderness of messages. Due to the huge amount of choices and communications, the fragmentation of media and the proliferation of products have actually made them reduce the number of brands they consider at the outset. Brand awareness matters: brands in the initial-consideration set can be up to three times more likely to be purchased eventually than brands that are not in it[17].

Because about 70 percent of brands that are eventually chosen for a purchase come from that initial consideration set, it's where companies must focus their energy and resources[18].

The other crucial point for most marketers is budget allocation.

Traditional advertising is an aspect to be considered but what really drives marketing today regards other critical touch-points including past experience, word of mouth, or more practically the observation and analysis of the product in a store, or an interaction with a salesperson or trusted authority on the topic right before purchasing. Effort on those touchpoints has to be at

[17] Hoyer, Brown - 1990

[18] D. Elzinga, Bo Finneman, B. Seitz December - 2017

the same time specific to the category of referment and compelling along the consumer decision journey.

Get into initial consideration doesn’t mean that a brand will stay there until the end of the process, because brands come in and out of the consideration set as people go through the active part of the shopping process. In order to avoid being excluded from the consideration set, the firm has to provide the right kind of messages and experiences, online and in store even after the purchase, the game it’s not over. Post-purchase experience is very important because is the key to be in the initial consideration when a new trigger happens, and most triggers are recurring events.

The customer journey of a potential customer could start from a first phase in which he is intrigued by an announcement on a social media, while browsing on a smartphone during his trip by metro to work. In this first phase, usually called "Awareness" even if in a certain way would be more appropriate to consider it more as “Unawareness, Unconsciousness”, the potential client, even if on target with the brand, doesn’t know it, is not looking for this specific brand and therefore is not still ready to evaluate a purchase.

In this phase, commonly called "latent question", purpose of the company is to approach, to intrigue the user to make it proceed in the purchasing process. Intrigued by the announcement, the consumer lands on the site, takes a look and exits: here is that the company can target him with remarketing while browsing pushing him, once back on the site, to subscribe to the newsletter for instance, to then perform a micro-conversion, an action based on the actual conversion. At this point, also from a different channel, the "traveler" could receive an email and access the site once again by completing the purchase or deepening the knowledge of a product or service provided by that brand, thus carrying out a navigational research. In this example of a purchasing process, various tools and different devices all come into play, each with its own strengths, to accompany the potential customer to a greater awareness of the problem that the product or service solves and to the choice of the brand.

The customer journey theorized by McKinsey is so characterized by moments of interest and moments of decision. These contact points can be either online, as websites or social media marketing campaigns, or offline, as physical stores and call centers; they can be managed either directly by the company, as in the case of advertising campaigns and sales points, or indirectly, as in the case of reviews, word of mouth and comments in online communities.

Companies are therefore required to have a broad vision of a rapidly changing world. In addition to offering the products in the right way both online and in store, it is important to make the purchase choice independent and autonomous, but above all, conscious, especially when it comes to innovative technological solutions that must be translated into extremely immediate and everyday use tools.

Players are taking part of a multi-device and multi-channel shopping experience: the purchasing process is not a linear path, as one might think, where the potential customer sees an ad, clicks, arrives on site and buy. It is not unusual for the customer journey to be characterized by a path of variable and indefinite duration, made up of multiple micro-moments, or steps of progressive awareness of the problem to be solved with a certain product or service and points of contact with the brand itself. This is why it is unthinkable to have a “closed doors” view and, on the other hand, it is essential to reason in a multi-device and multi-channel perspective: in web marketing all the tools are not just good or bad, but more or less functional in fulfilling a certain function in the sales path of the customer.

The micro-moments[19] can be everywhere and the role of the company is to be able to be present in most of them exhaustively. However, there are different types of "moments” , four main activities performed by users:

- "I-want-to-know-moments": 69% of users conclude a purchase on a site where it was easy to find information, finding the answers to their questions in a simple way. In these "moments" the user wants to know and get more information about a product he has heard about. Is a moment used to learn and catch more knowledge, to learn more about a product that a consumer has heard of;
- "I-want-to-go-moments": 71% of smartphone owners used it to locate a store. An example of how these moments can be exploited are online services that provide offers related to the products present in nearby stores in order to help potential customers that want to know what is in his immediate vicinity, such as a shop or a delivery point;
- "I-want-to-do-moments": 91% of users turn to their smartphone for suggestions on how to perform a specific task or activity and only in 2015, video content with over 100 million hours was viewed "How to" search key.
- "I-want-to-buy-moments": users who decide to buy a product spend a lot of time online checking their features, reviews and price. In these moments, companies must monitor the brand well, listen to what the network is saying and rely on influencer marketing to be able to reach the target and bring it to the end of the purchase.

[19] Sridhar Ramaswamy (2015)

The most interesting part is that these moments can happen anywhere. It is therefore up to the company to understand what the needs of its target are and to be present in all consumer micro-moments. All this without making any distinction between offline and online: the purchase process starts online and ends in the store and vice versa.

- **Active Evaluation**

Contrary to the funnel metaphor, brands excluded from this first stage could be added to the number of brands under consideration during the active-evaluation phase as consumers seek information and shop a category. If a particular brand gets the attention of a customer, may interrupt the decision-making process, entering into the consideration set and force the exit of rivals, that represents an opportunity but also a danger. How the reconsideration impacts on the number of brands added in later stages, differs by market sector: just to make a few examples, a research of McKinsey & Company has illustrated that people actively evaluating personal computers added an average of 1 brand to their initial-consideration set of 1.7, while automobile shoppers added 2.2 to their initial set of 3.8.

Decision journey today is based on consumer-driven marketing because customers take information helpful to their decision and seize control of the process. Consumer-driven marketing activities are involved in two-thirds of the touch points during the active-evaluation phase, some of them without engaging with the company as internet reviews and word-of-mouth recommendations from friends and family, others with a passive role of the firm as with in-store interactions and recollections of past experiences. A third of the touch points involve company-driven marketing[20]. Even if traditional marketing remains a key factor for the business activities, thanks to the fact that consumers form opinions of brands by gathering conscious or subconscious impressions from advertisements and media, the change in the way consumers make decisions spurs the enterprises to move fast beyond purely push-style communication and learn how to deal with consumer-driven touch points influencing them in their favor.

People are exposed to more than 5000 ads and brands every day[21], and, considering this immense amount of advertisements consumers absorb, reactions have been to tune advertisements out and trusting ads less.

[20] Research conducted on German, Japanese and US consumers - Most influential touchpoints by stage of consumer decision journey - McKinsey (2009)
[21] S. Johnson (2014)

Some general considerations on advertising are necessary: media are neither especially trusted nor distrusted by consumers; there is variation in consumer trust across different advertising media; trust in specific ad media is differentially associated with education and income; trust in advertising media and media credibility are correlates[22].
Buyers tend not to be sure about the integrity with which the marketing industry behaves and that's why customers turn to family, friends, online sources or experts for an honest review.

Word of mouth and online feedback are still the two key-drivers that consumers rely on: 92 percent of people trust recommendations from friends and 70 percent of people trust the online opinions of their fellow consumers[23]. These reviews and opinions help buyers narrow down the brands they'll ultimately buy.
Thanks to that active approach of customers, especially if a positive word-of-mouth review encourages them to do so, the number of choices assessed during the evaluation phase may grow rather than narrow. Brands may replace those choices the buyer had on a short list during the first step of the decision journey.

The way with which customers make purchasing decisions is in part rational and in part irrational. There are two main types of choice: automatic and reflective[24].
First, the automatic system, heuristic-based, which means that it relies on mental "shortcuts". Makes people act even before they know what is really causing the action, is anchored entirely in the present. This is the system that triggers the impulse of buying a chocolate bar near the supermarket check-out. Even a deliberate choice, like buying a pricey dress or an expensive painting, may be the result of this system, because the decision is based on a strong, subconscious attraction because the brain knows there's no practical utility of that purchase.

The second one is the reflective system, or controlled process, where choices are not based on temptation or impulse but on carefully considered logic and reason. This is the system where customers consider the impact of their choice. Hence, the reflective system leads them to more logical and reasonable actions, for example with a compromise and a cost-benefit analysis like for example taking back the chocolate bar, committing to losing weight.

[22] H. Soh, L. N. Reid, K. Whitehill King (2007)
[23] Nielsen.com - Nielsen's Global Trust in Advertising Survey (2015)
[24] A. G. Sanfey, L. J. Chang - 2008

Marketers can appeal very effectively to both the automatic and the reflective system of consumer choices. Locate the chocolate near the check-out counter is not a random choice cause is a trigger of the automatic system and by consequence of a micro-consumer journey with a very short time-gap between evaluation and purchase phases. On the other hand, by highlighting the advantages of various scientific ingredients of a product in a very easy-to-read way or listing the technological features of a television set both on the website and in a store, brands can cater to the reflective system of choosing.

The principle behind the mental process of customer satisfaction is that people tend to feel happiest when their automatic and reflective systems are fully in alignment with each other[25] and that happens if they would have arrived at the same choice through both these systems. Hence, the real role for marketers nowadays is not to spread the net as much as possible and wait to catch some fish, but is to help active consumers get to this point of alignment, because the key driver of strong brand loyalty, is their first contact and experience with that brand.
But not every journey has an easy, immediate solution, rather the opposite.
A choice may sometimes be difficult because there is no meaningful difference between two low-involvement products. There are many categories of product that are barely the same or with a minimum distinction in terms of quality, price or packaging. For instance, choosing between two brands of soft drinks virtually similar in taste. In such case, could be used several priming techniques like celebrity brand ambassadors, or appealing words and images, to influence choices triggering the use of the automatic system.
Sometimes, there are unpleasant choices, where all the available options are disagreeable, in such cases, consumers may actually prefer others to make the choice for them, because even through the controlled system, the customer has not enough awareness and the fear of making a wrong decision prevails over his reasoning process.
However, a choice may also be difficult because it is an important or high-involvement decision. For crucial, high risky decisions as which home property or life insurance policy to buy, or to opt for a potentially risky surgery consumers tend to ask for help from an outside expert representing a reliable source of expertise, this way guiding consumers to a decision driven by their reflective system of choice.

After all those considerations, is possible to identify some of the key factors that marketers have to take into account in the definition of their strategies.

[25] H. Bhat - 2018

- Human brain prefers a “fast” decision-making whenever possible; this is true both for buyer and seller[26]. For many kinds of product is used heuristics to make choices in the simplest possible way, this happens when brand is not a critical factor.
- Online information, not only company driven but also consumer generated, leads to two-way conversations in which both sides mutually share information and give new perspectives to the other part making consumers aware about brands, products, together with data about behavior, choices, trends or expectations.

On the other hand, the fragmentation and multiplication of consumer touch points, especially online and mobile created a disruption in corporate strategies and organization.

- Brands are stored in memory as a loose network of known facts, experiences and emotional associations. Decisions are taken in a more active and slow process in which the context determines the extent to which these associations are brought together and used explicitly.
- The occasion in which the journey starts has a big importance influencing any evaluation of a brand and consequent purchase. For consumers is hard to self-identifying with most brands, quite often, loyalty is an instinct or habit rather than a conscious action[27], and without this consciousness, a customer will be more likely to be distracted by advertising, making penetration critical in terms of brand growth.

Past experiences are a complex and dynamic mix. The combination of their own firsthand product or service usage and the secondhand experiences, described on social media or directly communicated by the brand, provides an overall positive feeling encouraging consumer to choose one brand over another. The effective evaluation of a brand is formed more often after usage but starts time and time before, trying to justify decisions during the active evaluation phase.

Measurement of the brand’s health therefore needs a new approach too[28].

Brand Associations: is a crucial aspect that is often underestimated, important to evaluate the emotional responses that will drive choices and post-rationalization through decisions and associations. Is necessary to investigate whether a brand is acceptable, and the combination of rational and emotional associations is pushing for a greater share of decisions.

[26] N Khatri, H. Alvin - 2000
[27] Ipsos Innovation & Knowledge: Media & Brand Communication - 2011
[28] G. Staplehurst - 2009

Being in the initial consideration set as a top of mind in a decision situation is the first critical factor. The other factors are 'meaningfulness' and 'difference'. These three elements interact because even if the brand comes easily to mind, it still has to be liked and credible, so remembering a brand doesn’t imply a consequent purchase.

Heuristics: is a concept that needs to be intended in a different way according to the category of referment. In sectors in which “first/fast to mind” is important, would be more appropriate to measure it with a needs-based salience whereas, should be kept the old funnel metric of recent purchase in “bought last time” driven sectors. Heuristics range from price to quality, from identity to gratification.

Experience: Brand marketers should be utilizing freely available metrics of Sharing and Searching to understand how effectively they are managing the consumer journey.
Social media tracking is vital to understand how often brand experiences are shared and whether their messages are positive or negative.

Shopper: availability of the product (in store or online), pricing, distribution and promotion are factors that influence on the decision in a different way according not only to the specific market but also to the personal attitude of every customer. Typically, are considered sales metrics and viewed separately from brand marketing metrics but is not true, they work in a more homogeneous way, is quite impossible to set a strategy without considering both aspects simultaneously. In fact, the two sets of data need to be considered together in the context of category shopping behaviors.

All these measures represent a clear disconnection from the old, linear, funnel shaped model. Even if awareness might be low, involved consumers will amplify their initial consideration set discovering or being informed about brands during enquiry phases of the “active evaluation”, or even at point of purchase for example directly in the store or on a website. So is implicit that the number of brands considered at any step in the cycle will vary both up and down. Consumer behavior can be affected by many factors, a consumer might have a need triggered but jump straight to a particular brand to avoid the effort of thinking, spending time in costly and difficult research of information. Perhaps most importantly, research has proven that strong brand associations which can influence predisposition derive more from experience of the product or service[29]. Advertising impressions can contribute to brand associations, in particular when they frame brand experiences and build brand image.

The number of brands added for consideration in different stages differs by industry.

	Share of purchases, %			Average number of brands	
Sector	Initial consideration	Active evaluation	Loyalty loop[1]	In initial-consideration set	Added in active consideration
Autos	63	30	7	3.8	2.2
Personal computers	49	24	27	1.7	1.0
Skin care	38	37	25	1.5	1.8
Telecom carriers	38	20	42	1.5	0.9
Auto insurance	13	9	78	3.2	1.4

[1] For skin care, includes consumers who purchased their current brand 2 or more times in past 3 months and for whom current brand made up at least 70% of total category purchases in past 3 months; for all others, includes consumers who purchased same brand on current occasion as on previous occasion and did not consider any other brands.

Source: McKinsey consumer decision surveys: 2008 US auto and skin care, 2008 Germany mobile telecom, 2009 US auto insurance

- **Loyalty Loop**

A loyalty-driven category is a category where, when occurs a purchase occasion, the customer repurchases the same brand without really shopping for others.

Being in the initial consideration set, at the top of the list, when customers need to buy again, is fundamental. Keep an existing customer takes less time and money than it does to get a new one. Furthermore, existing customers tend to increase their purchases over time, increasing their value to the company.

Loyalty is elusive, is the biggest challenge for marketers to motivate customers to repurchase and, to do so, they need to place more emphasis on the moments when consumers are initially considering which products or services to buy. There are two threats to be considered, one internal and another external: understand who those consumers are, what triggers them to shop, and how to enter the initial consideration set on one hand and, once a brand is in a consumer's consideration set, fend off competitors during active evaluation increasing the chance of converting shoppers at the moment of purchase.

There are two kinds of loyalty: Transactional Loyalty and Emotional Loyalty.

[29] How Brands Grow, Byron Sharp - 2010

- Emotional loyalty is the brand where consumers will look regardless of price, due to many outside factors that helped establish a personal connection to that brand.
- Transactional loyalty is slightly different. The decision is driven by economic factors such as lowest price or practical like the distance from home. When certain conditions change as could be a new opening even closer or a competitor with better prices, then the former shop is at risk of losing a client that will spend elsewhere.

Every consumer is different, every experience is different but at the end of the day, a pragmatic view of loyalty is about where the consumer is spending his money, so transactional loyalty shouldn't be underestimated cause emotionally loyal subjects probably started out as transactional loyal customers.

Emotional loyalty can be considered as the summit of the mountain because customers at this point feel like they're part of that brand and want others to feel the same.

Anyway, the majority of consumers is not loyal to a particular brand. Purchasing decisions are being made less and less on emotion and more on a cold, hard ratio so that only 25% of US consumers consider brand loyalty as something that impacts their buying behavior[30].

Even if there is no science to earning emotional loyalty, there are, however, three emotional loyalty earning behaviors that can be applied to put the business in position to connect on a deep level with customers.

1. Customer Involvement

The set of values, organizational transparency, how the business works have to be in line with customers demand in order to let them feel like they're part of the system. This is especially true for young people that prefer to do business with an organization that supports good causes. This also means that an organization has to be highly responsive in terms of customer service. If customers are dissatisfied with an aspect of a brand, are more likely to look for another alternative in the market.

2. Customer Empowerment

Empower customers is referred to the fact that it's in the interest of a business to make customers experts at using their product or service because they should ingrain that product or service into the customer's life. The reason is that a better practicality is translated in constant customer engagement and touchpoints. This way customers can be involved in shaping every aspect of the business, from product development to marketing.

[30] Ernst & Young (2017)

So, this point is also related to the previous one: customers need to feel like they have a voice in the company. It's an essential step for a business that wants to establish a strong relationship of loyalty with its customers and the only way is through a complete understanding of customer needs from the entire organization.

3. Customer Recognition

Personal recognition is one of the main factors that people ask in order to feel important. Store managers are expected to learn buying preferences and information about the client. Relationship-building tactics can erect customer loyalty to a brand.

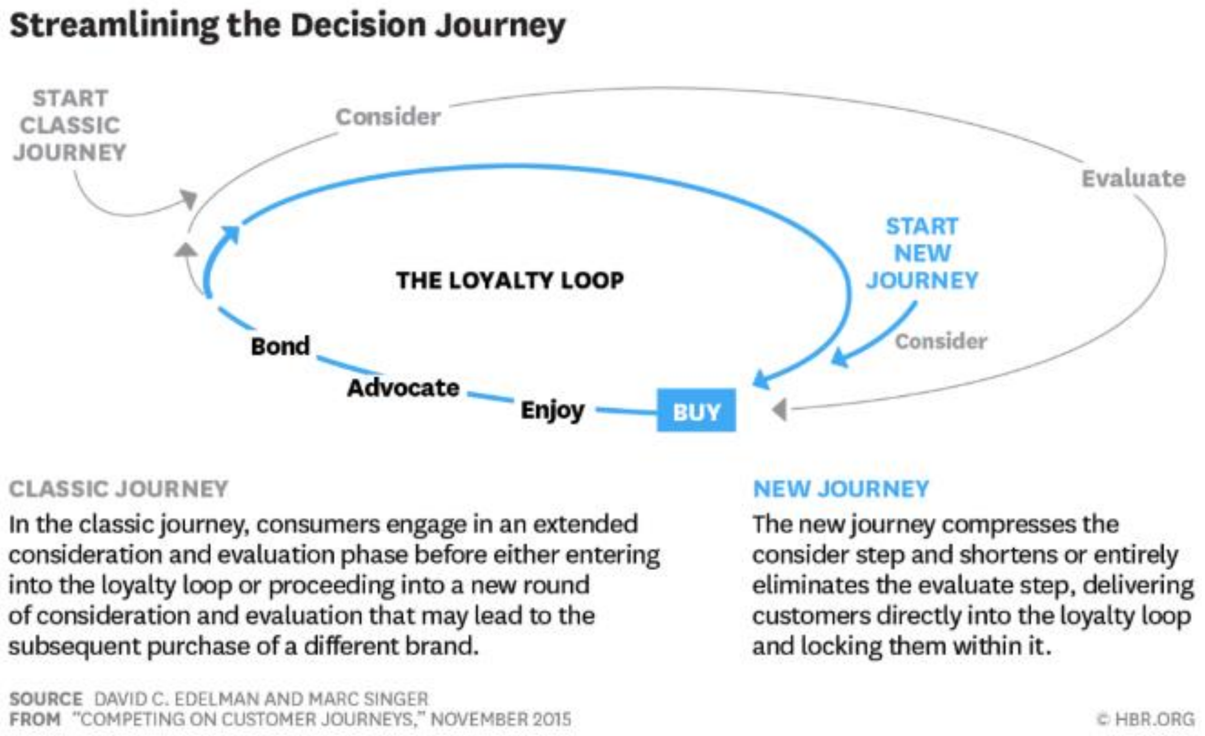
Loyalty programs are a great way to seek those tactics systematizing recognition and rewards. An effective loyalty program into an organization that has a customer focus can ensure the capture of both transactional and emotional loyalty at the same time.

The final element to these three characteristics is the constant relevant communication. The engagement factor, as will be resumed later, puts its foundation in the frequency and the efficacy of messaging to regularly remind about brand value.

Customers want to know the impact of being associated to a certain brand. The companies best able to form a relationship with customers are the ones who find a way to mutually share feelings with them. Theorists put much effort on this concept to renew the old considerations on how people make their buying decisions.

2.5 Most recent model: New Consumer Decision Journey

In 2009 took place the shifting from the traditional model, the funnel, in which consumers began with a set number of brands in mind and whittled them down until they decided what to buy, to the consumer decision journey, reversing the balance of power in favor of consumers that can evaluate products and services more actively, adding and removing choices over time.
Another cornerstone is the feedback loop that incentives brands to achieve a better experience continuously afraid of how customers, that keep evaluating products and services after purchase, could judge the experience.



Things are changing again in the past few years. Brands today can not only react to customers as they make purchasing decisions, but they have also actively shape those decision journeys. Companies can benefit from new technologies to design and continuously optimize decision journeys and use decision journeys to deliver value to the customer and the brand at the same time. The main concept is to operate to set strategies useful to radically compress the consideration and evaluation phases, pushing consumers straight to the purchase process and catapult a consumer right to the loyalty phase. So, the journey itself could be seen as a new source of competitive advantage, cutting the process and direct buyers faster to that brand.

The ability to deliver that value relies on four distinct but interconnected capabilities[31]:

- Automation streamlines journey steps: digitization and streamlining of steps in the journey that were done manually. This way consumers can execute formerly complex journey processes quickly and easily. While automation of processes is highly technical, the focus is on enabling simple, useful, and increasingly engaging experiences.
- Proactive personalization: uses information about a customer based on past interactions or collected from external sources, to customize the experience of each one of them. Know preferences and remember past experiences is a basic example of this capability, and to immediately add value to the experience, is necessary to extend the personalization and optimization of the steps in a customer's journey. So is recommended to analyze customer behavior and tailor its next interaction accordingly.
- Contextual interaction: a key capability is to use knowledge about where a customer is in a journey (virtually or physically) to deliver him to the next set of interactions. A few examples could be the retail site showing a customer the status of a recent order on the home page or even more complex like hotels experimenting with using their app to operate like a key when a customer gets to his or her room.
- Journey innovation: extends the interaction to new sources of value, for both the customer and the brand. Innovation occurs through ongoing experimentation and active analysis of customer needs to identify opportunities to extend relationships. Companies mine their data and insights about a customer to figure out what adjacent service her or she might appreciate. The best companies design journeys that enable open-ended testing to allow for constant prototyping of new services or features.

  An innovation could be simple as a prompt, or an input in case of a specific event or more complex as could be integrating services into a single customer experience.

In order to understand what is changing about consumer decision making and how the world is changing, and consumers are adapting to that world, McKinsey analyzed data from more than 125,000 consumers, across 350 brands in about 30 categories. Results are a clear signal: of the 30 categories in exam, only three of those were loyalty driven[32].

Only about 13 percent of consumers are repurchasing the same brand without shopping. The remaining 87 percent of consumers keeps shopping, and, only 29 percent of them goes back and buys the incumbent brand. Considering that those people are still shopping, their current brand is vulnerable because companies can't set their strategy being enough confident about

[31] D. Edelman, M. Singer - (2015)
[32] D. Court, D. Elzinga, Bo Finneman, J. Perrey - (2017)

those numbers. The other 58 percent of people will switch brands from one cycle to another, evaluating a different brand at each purchase.

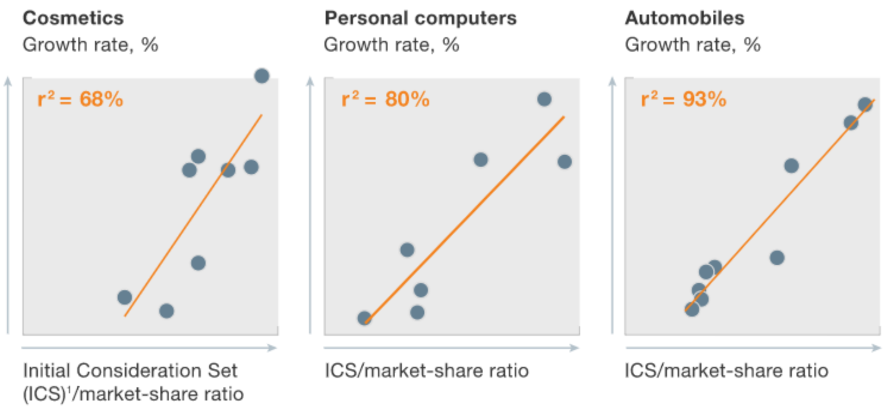
During the active evaluation step, customers are doing research and other things to ensure that they're making a smart decision. As consumers move through the journey, add and subtract brands, but often with a superficial view of shopping so they don't make those research with the idea to necessarily open to or choose a brand that enters later on.
So becomes critical to focus on initial consideration because of this confirmation bias that doesn't ensure for a brand added later, to be considered also for purchasing.
There's a distinction between pure awareness, that is just simply knowing the name of the brand, and positive associations with that brand that could be also tangible in terms of how the production works or what are the features of the product itself, or something intangible, which is related to the reputation of the brand.
This difference is the one between initial consideration and total consideration: when somebody's triggered to shop is literally launched into decision-making many times without even thinking before that point, for example in the case of an urgency or an unscheduled event. The first thing that a consumer does is to remind past biases and experiences or suggestions from other people as much as the advertising looked around maybe without much attention. The sum of all the above constitutes the initial consideration set. From that point, customer enters the active-shopping mode adding or removing brand from that consideration set. Brands remaining after all those research and time spent form the total consideration set.

To understand what the future performance of the market might look like, McKinsey ideated a metric useful for marketers and business, based on some analysis.
This metric is quite simple: take the percent of time in the initial consideration set, divide that by the current market share of a company, and multiply by 100 to create an index called the customer growth indicator[33].

[33] Bo Finneman - August 2017

In most shopping-driven categories, the ratio of initial consideration to market share explains more than 60 percent of the variance in growth.

Selected industry examples



Distribution of r^2 values, number of industries[2]

That index explained, for 60 percent of the categories analyzed, the variance of future growth with an R-squared above 60 percent that represents a very strong relationship with future growth. The utility for a company adopting CGI is to understand whether that brand is more likely or less likely to grow faster or slower than competitors in that consideration set.

CGI is quite critical in terms of investments that can be done can be done from a private-equity perspective or from an M&A point of view, source of financing and allocation of resources and think about areas where should be an organizational update.

One of the most important things for a corporation is to ask itself what is offering for a consumer. Coming out with innovative offerings into the market ensuring to do that in a way that is newsworthy, on brand, and compelling, is a consistent way to improve in their ICS scores. Innovation can fundamentally happen at a product and experience level but also in a marketing campaign, and that development perspective, is something that can drive critical inclusion in the ICS.

Innovation might also regard how to spend money and go to the market reallocating resources to those touchpoints that best drive initial consideration or personalize the activity with a better targeting. Consumers that have experienced a brand may have left it because those people were never targeted before. Redefine the target, creates an initial consideration for those new audiences by just claiming their attention.

This target issue is also the reason why companies tend to cooperate or create coalitions in order to use those familiar brands as a bridge to new customers in the same target: a group of consumers with similar needs, or attitudes.

Is now opportune to focus on the distinction between initial consideration and final consideration. Initial consideration is the collection of brands at the instant of a trigger, without any additional information. Final consideration is the group of brands on which customer is going to make a decision between at the moment of purchase. Often last only two brands in the final consideration set.

In order to win this final battle with the other player, is necessary to make sure that the company involved knows what brand equities and what touchpoints are most critical for that battleground to make the customer experience that purchase and drive growth.

The CGI metric can be helpful if the company has a collection of brands and wants to assess where the most investment is needed. An option could be to run an initial CGI across each of those brands, relative to their competitive sets, to understand whose have the key strength on which the business can count for future growth and, by reflection, which one need to deploy funds in order to turn around and drive initial consideration.

Use both the CDJ and the CGI together to drive growth, is successful in terms of what companies practically can do taking those insights about how consumers behave and putting them into action. There are three main elements to explain this success.

- The first one is to provide explicit clarity to firms and focus the enterprise on what is needed to set their initial strategies, moreover, is used to inform very specific tactics that involve touchpoints or equities, where there’s the need to make traction.
- The second thing that companies tend to do, and it’s not valid only for the CGI but is also true for the CDJ more broadly, is to track the metric over time to make a comparison with competitors.
- The third element is creating a language for the enterprise to use. It’s important to have a direct, explicit expectation of different functions and businesses to start to develop customer-centric programs.

Those three aspects are the pillars of something that provides a foundation for growth in the present and ensures to keep with positive results over time, gaining competitive advantage.

Chapter 3: Information Exchange in Decision-Making

Game theory has been applied to economics to improve business strategies and competitiveness[34]. Management can use it to gain a better conceptual understanding of decision-making in competitive situations. For instance, game theory has been applied to issues of pricing and advertising decision making. In fact, various possible marketing strategies can be represented in game matrices, analyzing the outcomes and finding several solutions according to the number of different behavioral assumptions done.

In a game, the decisions of one can influence the results achievable by the other players and vice-versa according to a feedback mechanism, seeking competitive or cooperative solutions through models, which, in particular, in the economic context refer to the case in which two or more companies interact in competition with each other.

A consumer buying process can be seen as a game in which competing companies set their strategies in terms of production and promotion in order to arouse the attention of customers that will evaluate the alternatives available and make a purchasing decision.

For this reason, is evident a reciprocal influence of industries and customers and in particular of the points of connection and interaction with which they exchange information, also called touchpoints. Anyway, for a more complete analysis, shouldn't be overshadowed the relation between customers and, more generally, the impact of society at large on purchasing behavior.

3.1 Roles on Consumer Purchasing

Individuals that can influence consumers are many, customers themselves can cover different roles in purchasing products and services. According to the role assumed, the expectation of people's behavior varies in a society[35].

The role that mostly can alter purchasing decisions is the one of influencers, people who have a relatively large audience in which to tout their beliefs. Those people have a determinant role in the market because, the more is their fame or status; more can impact the success or failure of a product by using it or shunning it. That's an issue that companies can't underestimate so often tend to target influencers rather than the entire market that this way will spread positive opinions of the product to a wide audience with relatively less effort. Influencers is a big group of heterogeneous people that can be buyers, retailers, or industry professionals just to make a

[34] Camerer, Teck-Hua Ho. Juin Kuan Chong - 2001

[35] lumenlearning.com/boundless-marketing

few examples. Their influence depends on many criteria such as how many people the influencer will connect with, independence, frequency of impact, expertise or persuasiveness.

Another relevant figure is represented by prosumers, a particular type of consumer that is also involved in the production lifecycle. Due to their expertise, those individuals use professional equipment and the disposition of a relatively high income.

If on one hand is important to consider needs and influences of this niche, the majority of customers is composed by different persons that can be sorted by target market. A marketer may design his product in order to best suit a specific demographic area or define a segment according to social status, gender, age or particular traits.

Generally, those people rely on reference groups, groups that consumers will look to for help in making purchasing decisions. Consumers tend to compare themselves to or associate with these groups, this way can heavily influence purchasing patterns. Again, is a big category that englobes family, friends, clubs, religious groups, celebrities that can have a contact point directly or indirectly, actively or passively.

When they sustain a product, through use or statements, reference groups can direct those that look to the group to purchase, on the other hand, if a reference group disapproves a product, potential customers will look for alternatives.

The influence on purchasing decisions is so important that people belonging to a group tend to modify their own behavior in conformity of the group norms.

The communication happens through opinion leaders, point persons generally with more knowledge about the market segment or product.

For this reason, opinion leaders can influence the perception of customers shaping how a product is viewed. Consumers are constantly looking for the advice of friends who can provide information, help, or even make the decision for them.

Opinion leaders are particularly useful in marketing. Identify opinion leaders is a crucial factor for companies that can direct the efforts towards attracting these individuals.

The difference between influencers and opinion leaders is such that in the first group are allocated people that simply want to be emulated, the second consists of professionals and experts or even individuals without a real knowledge about a product or service but still with the perception in the society that they do.

Besides that, the social context in which people are surrounded covers a role of major influence on one’s purchasing habits and consumer behavior. Social class is considered an external influence on consumer behavior because it is not a function of feelings or knowledge. People are grouped in social classes according to income, wealth, education, or type of occupation. Those can have a profound effect on consumer spending habits. For example, the income is strictly related to the concept of basket of consumer goods. Logically a better financial disposal lets richer purchase more goods with a better quality.

Word of mouth is undoubtedly an important driver in consumer decision making but is not so clear which aspects of it are especially important.

Word of mouth's impact depends on the sender and the receiver of the message. If the intermediary in a three ways relationship has a strong relevance for both, also the trustworthiness of the feedback that goes from a side to another, will be greater[36].

We might make the further assumption that communities or groups are characterized by relatively strong ties among their members. The direct implication of that, is the fact that the only connections between communities are those made along weak ties. For this motivation, weak ties represent a crucial role to be highlighted in the diffusion of information through word of mouth because a piece of information that traverses a weak tie is likely to reach more people. The last important implication is that information moves quickly within communities but slowly across them.

Studying consumer behavior when provided a feedback can be really useful for companies that, through subconscious, could address customers in a preferred way[37].

Is demonstrated (Ofir & Simonson, 2001) for example that when customers expect to provide feedback on a particular experience, reviews tend to be more negative. This happens because when people are aware of the expectation from the company to receive a feedback, consumers will be more focused on minimum defects and surveys will be more critical and negative.

So, in general, awareness and evaluation can sensibly impact on consumer decision journey. Asking customers about their future intent can actually change their purchase behavior. Is interesting to know that when customers are subjected to conversations or interviews in which have to sustain a product, this action will enforce their opinion about the product and will be more likely to consider and eventually purchase the brand they were talking about rather than others[38]. This is clear also to explain the phenomenon of repurchasing; the experience and effective evaluation of goods gives the user more trust in that brand if the experience was satisfying, increasing the probability to repurchase from the currently owned brand.

So, companies have to be careful in soliciting feedback from customers because can be positive or negative according to the existing attitudes towards that brand or product. The role of firms is to make easier to retrieve these attitudes during decision making being present in the more

[36] Godes, Mayzlin (2004)
[37] Fazio, Powell, Williams (1989)
[38] Fitzsimons & Morwitz (1996)

appropriate way for each touchpoint, only this way, can increase the probability the realize profits and, above all, build customer loyalty.

3.2 Feedback: Definition and Characteristics

Feedback is conceptualized as information provided by an agent regarding aspects of one's performance or understanding[39]. Can be defined as "the information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, metacognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies"[40]. So, a feedback is the consequence of a performance.
This concept is different from the instruction because a feedback is how a personal experience has been judged where an instruction is the indication of how to resolve an issue.
However, when feedback is combined with more a correctional review, the feedback and instruction become more related until the process itself takes on the forms of new instruction, rather than informing. To take on this instructional purpose, feedback needs to provide an information that is specifically related to the task or process of learning that fills a gap between what is actually understood and what is presumed to be understood[41].
Feedback by itself may not have the power to initiate further action. The power of a feedback depends on the context in which is addressed, it is not based on a behaviorist input-output model. Contrary to the behaviorists' argument, a feedback is not necessarily a reinforcer, because feedback can be accepted, modified, or rejected (Kulhavy 1977).
The type of feedback provided considerably alters the reaction of users. The highest effect sizes involve customers receiving information feedback about a task and how to do it more effectively, providing reinforcement to learners in the form of video, audio, or assisted instructional feedback. Lower effect sizes are related to praise, rewards, so programmed instruction and extrinsic rewards are the least effective forms for enhancing achievements.
What a customer is looking for, is not principally related to the discovery of new brands rather than finding a feedback about brands and products already existing in the initial consideration set and, only occasionally, adding new ones if the consumer realizes that the starting point was based on the wrong assumptions. For this reason, the power of feedback is influenced by its direction. More specifically, feedback is more effective when it provides information on correct rather than incorrect responses and when it builds on changes from previous trails. Another

[39] Hattie, Timperley - 2007
[40] Winne and Butler (1994)
[41] Sadler, 1989

aspect that is taken into account is the difficulty of tasks. It appears to have the most impact a review about a product that, even challenging to understand completely, is not complex to find information of. Praise a product or a performance without adding anything more, appears to be ineffective because it contains such little learning-related information.

The kind of feedback can sort a different effect according to the sector of referment. In market segments in which the alternatives available are in high number and variety, product ranking and information quantity represent peripheral routes to persuasion. Product ranking in particular is the best source of high involvement when collecting information from online reviews. Customers tend to do so in order to reduce the so wide spectrum of alternatives and create their consideration set without spending much time and resources, in doing so, they adopt information on the average score of overall evaluations as shortcuts.

Consumers rationally tend to economize on time and effort when they search for information[42]and, for this motivation, an overall product ranking is a type of categorical information that helps them finding a smaller range of brand or products that facilitates and accelerates the retrieval of the most adequate solution.

Rankings are also helpful for evaluating and comparing different options, some information quality dimensions are more important than others in predicting the adoption of information. Information can be grouped in quality dimensions[43] according to accuracy, value-added, relevance, timeliness, understandability or completeness that will have a greater or smaller influence in a context rather than another.

- Information accuracy is the one of the strongest predictors in online reviews because is generally accepted that information coming from other customers are perceived as more realistic and reliable providing a more accurate evaluation.
- Information value-added. For a better evaluation of the quality of a product or service, provide both positive and negative information offer a more critical description of the goods. Value-added information may help customers to detect what has been shadowed by marketing communications for instance.
- Information relevance is another important factor. Online reviews provide information on a big range of experiences thus, potentially satisfying a plethora of information needs written by a variety of target groups and directed for this reason to a even greater range of customers that can answer the questions related to needs, opinions, evaluations, and

[42] Solomon - 2011
[43] Filieri, McLeay - 2015

experiences reported. Consumers adopt information online or by word of mouth because they get information that might satisfy their specific needs.

- Information timeliness has a very different influence according to the market taken into account. It is related to the utility of past reviews, so this factor can be more or less relevant in a segment or another.
- Information quantity starts an important debate. If some studies support that is a fundamental aspect to be considered in word of mouth at large for the prediction of sales[44] and consumer behavior[45], other research has found that information quantity does not appear to exert a significant influence mostly because volume can't be adopted as an information shortcut, but contrary, can even be confusing.
- Information understandability and information completeness tell about how the review is done. This doesn't represent a factor of discrimination, is quite common for customers to consider useful feedback also reviews that are not always clear or very well written, but are still valid for other reasons, the concept expressed above all.

The actual behavior of consumers is different, people have no real rational incentive in adopting information based on the volume of reviews, is more practical to look for categorical information such as overall ranking, that is a fair summary of the evaluations provided by all reviewers with the same need or experience.

It's interesting to see how the overall ranking can be an indicator of product quality even more important than product popularity in online reviews, meaning that in consumers tend to prevail the rational side rather than irrational when websites can provide relatively easily an exhaustive amount of information. So, a very good ranked product is perceived as better than another with variable feedback even if the number of reviews for the first one is much lower. Consequently, a larger number of reviews is not always favorable.

All the above considerations have important implications for marketing practitioners in the e-commerce and other industries.

First of all, for instance, should be paid a lot of attention to categorical information, such as product rankings, and create an active community of people which help customers to reduce or increase the alternatives available for purchase. This represents a starting point that needs to be reinforced providing more peripheral cues used to rapidly obtain the type of information consumers are looking for across the decision journey. From a managerial perspective,

[44] Duan, Bin, and Whinston 2005; Liu 2006; Chevalier and Mayzlin 2006; Dellarocas, Zhang, and Awad 2007
[45] Park, Lee, and Han 2007; Park and Kim 2008; Sher and Lee 2009; Gupta and Harris 2010

corporate strategies can be designed considering online reviewers as resources, comarketers[46] because the production of reviews can undoubtedly influence other consumer decisions more strongly than traditional marketing communications[47]. Thanks to the development of new technologies that gave the possibility for approximately everyone to express themselves online, the top-down system adopted in the past for product ranking, provided by opinion leaders and experts, lost its central role to give space to a form of bottom-up evaluation of products and services based on customer feedback. This trend could be considered both positive on a side and negative under another perspective. If is true that customers' voice has to be considered in an optic of awareness for other consumers and improvement for companies, reviews from not so expert people could have negative repercussions on the business of official and well-known ratings agencies. In fact, as already stated, in many sectors, especially where are provided daily-use products, customers might be more willing to trust other customers ranking than the ones from organizations and groups of experts with the possibility of biases or partial information.

The accuracy of the information is a powerful influencer in the decision-making process. Many companies intend online marketing as a channel in which indiscriminately invest their resources without a clear strategy. This is a common mistake; companies should refine and improve the techniques that they use to guarantee the accuracy of online reviews and information spread through websites and social media in order to avoid viral marketing activities and fraudulent or fake reviews. In order to do that, should be made a restriction or a selection of the profile of reviewers as a way to increase the perceived reliability of the information provided. Another shrewdness should be on ranking system that evaluates the expertise of reviewers on the company's website, which could be based on the frequency of reviews and the experience of use of related products in the same category.

Knowing that for customers became relatively easy to gather information that could be both positive or negative on the features of the product or service reviewed, companies have to adapt their communication strategy making marketing campaigns and websites more in line with the real quality of the product and services they offer. For such reason, a more sober and realistic communication should be adopted when promoting a product.

So, to make a resume, companies should monitor information quality dimensions that are heavily influencing decisions adopted by people trying to collect information during a consumer decision journey. Refining these dimensions is a way to attract more reviewers and potential customers, creating a self-powered micro-environment of people that improve the search engine positioning and increase brand awareness. Even if many businesses today are already

[46] Sigala, Christou, and Gretzel 2012
[47] Bickart and Schindler 2001; Senecal and Nantel 2004

attempting to increase the amount of users and reviews on their websites in order to improve travelers' awareness of their brand, some of them are not putting enough effort on the regulation of the quality of online reviewers that could lead to undesirable effects. To avoid that, through strict information quality standards and advanced systems, is possible to guarantee a better information accuracy, that is a factor that shouldn't be underestimated in the adoption of information.

3.3 Interactions between Buyer and Seller

The general discussion about the ways in which companies and customers have a contact and, consequently, what could be the possible strategies that marketers can adopt, needs to be framed starting from transactions and elements affecting them.
A fundamental step is to understand which are the main factors that are influencing choice on transaction mechanisms[48]:

- Environmental Uncertainty

Environmental uncertainty is defined as the extent that uncertainty decreases as a company matures and, at the same time, the benefits deriving from integration presumably decline[49]. The uncertainty is strongly dependent on the information available from customers so that is higher when the awareness can't allow them to make a convinced decision to achieve their goals. So, uncertain problems can be reduced with an information exchange between parties. The more the referential market segment is characterized by a high degree of uncertainty, the more increases the need for reliable information. The sources of uncertainty are three: environmental dynamism, technology uncertainty, and environmental diversity.

1) Environmental dynamism, or consumer demand uncertainty, is the frequency of change in consumer demand for a product[50]. Firms can benefit from information exchanges between buyers and suppliers to understand how customer tastes are changing helping them to make the appropriate corrections to the product in order to meet the demand with new features required by the market demand.

So environmental dynamism helps both parties to reduce uncertainty. A new need in a consumer could surge through the evaluation of products when collecting information discovering new interesting features; companies need a certain degree of flexibility in order to adapt to such demand change and give the right response to the market. This way buyer and supplier have an

48 Sungmin Ryu, Ken Hung - 2009
49 Williamson 1979
50 Hough and White 2003; Joshi and Campbell 2003

active role, influencing each other. Thus, though environmental dynamism cannot directly reduce consumer demand uncertainty, parts involved in information exchange can develop relational norms aimed to reduce uncertainty.

2) Technological uncertainty is the degree at which main characteristics and technologies of a product or service are changing[51]. It can be related in wide sense to the quality of the product that is not necessarily linked to technical specificities rather than general features that could regard also supportive elements or different way of usage. High degrees of technology uncertainty can create huge information needs because generally technological development is related to a lack of expertise for occasional or new customers, a gap that can be filled through the information research.

Information exchange is more difficult in a segment in which there's a high level of technological uncertainty because will be harder for consumers to find information and would more probably be needed the support of an expert or a bigger time investment for the potential buyer. Even if the market dynamism could help in a quicker and more effective information sharing, those two factors are not strictly related.

3) Environmental Diversity is defined as the extent of dissimilarity between different environmental factors that buyers face[52]. When exchange parties have a confrontation in a different environment, the diversity brings out the necessity to deal with more resource requirements, consequently the information need increases making more complex the information research.

This is a typical issue of parties with a cultural barrier; many times could happen that companies that want to invest in a market in which the socio-political situation presents high deformities from the one for which the product is designed, fail in the process because of the inefficacy of the communication between parties.

Anyway, through interaction this degree of uncertainty can be reduced. Close and frequent interaction between parties who are related to the required information increases information processing capacity.

- Environmental Concentration

The concentration of the market is related to the presence or even just the perception that resources are controlled by a few suppliers[53]. High environmental concentration means few suppliers provide most of its resources to many manufacturers.

[51] Heide and Weiss 1995
[52] Achrol and Stern 1988; Klein, Frazier et al. 1990
[53] Aldrich 1979; Achrol and Stern 1988

A segment in which suppliers are only a few is characterized by high costs that don’t incentivize new players to enter in the supply chain. Buyers tend not to rely much on sectors in which environmental concentration is high because the small range through which is possible to choose is narrow and is harder the research of the best alternative available.

- Complexity Of Product Features

This is a crucial aspect of decision making because describes the complexity of product features referred to the amount of information needed to specify the attributes of a product[54].

A market segment in which are available heterogeneous product makes the search costs for the buyer higher and inefficient. This happens because a higher complexity of a product feature implies more information requirement to specify the product accurately. Due to the importance of evaluation of products, buyers in this kind of market tend to collaborate more looking for information on internet communities and feedback, trying to help each other sharing their knowledge and personal experience.

If a very specific product needs to be analyzed and evaluated directly, when a product is not unique and easily described in standardized terms, buyers are likely to rely on electronic markets because standardized product features allow easy comparison among suppliers.

- Information Technology Capability

Information technology capability is a more practical requirement because is identified as the degree to which exchange parties can carry out e-commerce. Maintain a technology represents a cost related to the specific investment and the maintenance of this technology. Even if for common goods is not the case, there are many products and services for which the disposal of devices or particular assets is required. Thus, when exchange parties already have a high level of technology capability, they are more likely to rely on that to take advantage of such capability as it is the case of applications or programs on a smartphone or a computer.

Purchase can be defined as the exchange between a seller that provides a product or service and a buyer, a person interested in that product.

The exchange has to be intended on multiple levels; trade goods with money is just the superficial aspect of this relation, the underlying layer is the information exchange of both physical and psychological values. The aim of the salesman is to develop credibility and legitimization gaining information from customers used to improve the quality of the business and the efficiency of the communication strategy, on the other side, the consumer needs awareness in order to take an optimal decision.

[54] Malone, Yates et al. 1987; Mahadevan 2003

The perception of the brand is the first barrier because the behavior of consumers changes according to the general idea they have. In this sense, a company can be catalogued under many dimensions where the most relevant are experience and similarity[55].

In the early stage of the sales process, the attribute of "expert" may dominate the attribute of "similarity" because when potential buyers are still developing an idea of the product that can satisfy their needs, expert attributes have a powerful influence in achieving attitude and behavioral changes in buyers[56]. Is reasonable to consider that customers that already have a good knowledge about the sector, are less likely to be influenced by this factor because the expert attribute could be biased where, in a more mature buyer-seller relationship, the concept of similarity becomes more relevant, basing the decision journey on past experiences or comparing choices with the one made from other people.

According to the starting consideration that the buyer has of a brand, the information exchange will be affected. In this sense, a purchase is like a problem that the customer has to resolve; the company attempts to understand more of the nature of the problem in order to be able to suggest an attribute package that will result in a sale. For this reason, positioning also covers a crucial role because being aware of such attributes is not enough if they are not presented in an efficient way in the market demand. If the company is perceived positively, the interaction between those two parties will be faster because the customer will tend to trust more the quality of the product provided.

So, generally, brands in the initial consideration set of the consumer will also benefit from a direct interaction with the buyer, collecting more useful information than competitors such important attributes or key drivers in the decision making.

Each individual develops a bundle of attributes that can be exchanged and which have utility to him in a way that is established a relationship relatively direct and immediate. This exchange of interaction will be profitable for both parties if they "give the other man behavior that is more valuable to him than it is costly to you and to get from him behavior that is more valuable to you than it is costly to him"[57]. The exchange has to be profitable for both sides for different motivations, on one hand, a company provides products receiving back a payment and at the same time may provide advice and receive esteem. On the other hand, the buyer receives a product that will fill its need and plus, all the information gained during the decision process,

[55] David T. Wilson (1976)
[56] Busch and Wilson (1975)
[57] Homan's (1961, p. 62)

can help him to solve a purchasing problem making much easier following interactions and repurchasing.

- **Consumer Reviews and Their Influence on Buying Behavior**

The aim of companies is to set more effective strategies allocating resources in the most successful way in order to achieve two main objectives: turn a passive shopper into a lifelong buyer and build trust in the annexed brand[58].

To obtain such accomplishments, is necessary to listen to the public which marketing and operations are directed giving them the opportunity to interact with the company and within each other, in an optical of information exchange that will benefits both buyers through awareness and sellers through strategic improvements and process optimization.

Data on feedback can thereby represent a possible food for thought. It's simple marketing tool that may have a huge impact on customer's behavior just considering that 86% of customers read online reviews before making a buying decision[59].

Obviously resort on online product reviews differs from sector to sector in terms of how affects purchasing behavior and need of usage. For instance, how often customers rely on reviews varies depending on the product or service consider: if only 31% of customers are interested in grocery shop review a more consistent 60% is likely to read reviews on a restaurant and about 70% of consumers needs advices on technologies and software.

Anyway, reviews shouldn't be considered as more than strictly personal opinions that could be affected by factors related to the occasion and contingency in which the experience occurred, moreover as anticipated, can be identified three main groups that have influence over consumer purchase decision: personal preferences, psychological and social factors.

Nevertheless, social influences on consumer buying decisions are most likely to help in developing businesses. Share an experience and give some indications is positively accepted by the community.

The trust that comes from the overall ecosystem of feedback plays a central role in ensuring confidence.

Across the decision journey, customers spend the majority of time in the evaluation of alternatives, collecting information that will help them reducing the risk of a dissatisfactory choice. For this motivation, consumers tend to rely on feedback considering reviews as personal recommendations. An eloquent data is that 94% of the reported online review had convinced

[58] Berg (2018)
[59] BrightLocal survey (2018)

customers to avoid the purchase. Quite often people compare two brands in their reviews, which also is either beneficial or harmful for business.

A review is structured basically on three elements evaluated in a product: the expectation and so the gap between perception of the product and how actually is, the quality of the usage compared to other products and the fairness, how respondent it is to their needs. In substance, it means people want to know how the goods will be looking and serving. So, feedback in many cases tell about what the expectations were and how a product fulfills them. That implies individuals in a more advanced stage of the buying process, will probably influence the purchasing behavior of those are just at the beginning, still gathering information and still confused about what to add or cut from their consideration set.

Reviews are also an opportunity for companies to establish a direct contact and share information in a one on one confrontation. Customers point much attention on that, 89% of consumers read the responses of businesses' representatives evaluating the product also in consideration of the inputs given from marketers. Both for positive and negative reviews, the presence of companies is an important factor that makes users feel more closer to the brand.

Not all reviews are the same and have the same validity. The most favorable reviews tend to be on an authoritative website, are recent, and help put the purchase in a proper context. So, buyers tend also to judge the trustworthiness of the website. Anyway, the platform is not enough; supporting materials, demonstrations and testimonials are ways to boost participation from customers and companies that adopt e-commerce as a distribution channel need to reinforce the overall quality of the data set in order to improve the trustworthiness.

What customers are looking for when searching for information and solid feedback can be resumed in four main cornerstones[60]:

- Recency, the most recent and newest reviews show a more realistic description of the actual experience rather than old feedback.
- Consistency, if the average response is unstable, representing a product with very good and very low scores, the reliability of such reviews decreases.
- Supporting materials, image galleries, video uploads and explanatory material can really help the trustworthiness of the general review.
- Authority, the source of the review itself needs some credit. If shoppers can trust the review system and/or the reviewer, also the feedback gains value.

[60] ICCweb (2018)

The whole concept of Word of Mouth today continues to turn in the direction of eWOM. On the internet is possible to find reviews of quite every product and service from people that experienced it. Customers are aware of that, so the expectancy of feedback and more detailed data grew to a level for which the presence of them is reconducted to the performance of the company. For instance, a website in which there are no feedback or are outdated may indicate a drop in sales or may be the result of it happening. So is crucial for vendors to stimulate ratings to keep their listing active and selling.

This is a fundamental aspect of the corporate life; nine out of ten internet users trust reviews and 90% of customers use reviews as part of their decision-making process[61]. People don't just take into account marketplace and website reviews; they also place weight on social media reviews creating a dynamic and multi-channel environment.

So, Word of Mouth, especially online, has a profound impact on digital sales, which grow year after year. Even if conscious that these systems are not perfect, consumers share information and experiences answering fundamental questions that could help surfers save time and allow vendors to increase sales based on merit. So, this process establishes a virtuous circle in which products that gather the best reviews, in terms of number of impressions and ranking, will continue to sell and most likely continue to gain more positive feedback.

3.4 Information Exchange between Consumers

Another aspect that needs to be considered is the relationship between customers, investigating what kind of interactions they have and the consequences of their exchange.

The way in which consumers can influence each other while exchanging information related to products and brands can be explain only after the contextualization of the dynamic in which those contacts happen. Considering an online community in order to simplify the discussion, what normally happens is that a consumer initially asks for information about a brand or product, requests help or advice, or poses a general question to the community. Once the message is sent, people that think to be helpful for the case, will start to reply aiming to maximize the number or the quality of responses. This more or less big set of information will be the base for a new challenge for the customer. He has to take in consideration that those reviews are different, on one hand the emotional influence can polarize the feedback in a specific direction, nevertheless to different claims will correspond lack of expertise or specificity or contradictory information posing a dilemma to be solved by the user.

[61] Gesenheus (2013)

The interpretation of this information exchange depends so on the expectation.

Anyway, the more increases the number of opinions and information gathered by the customer, more will be aware clarifying and developing a personal opinion. This is the reason why, therefore, consumers deliberately seek to amplify their exposure to interpersonal influence making requests for information and posting these to online communities of interest.

Logically, more the community is active, more is the probability to gain better and more objectives information that can reduce the searching costs of new potential customers. In this sense, following or multiple rounds of questions and answers can lead to a clarification for the original actor and at the same time reinforce information on a topic or extend them to related topics for new players. Those who provide answers, advice, and suggestions also employ rhetorical strategies to better frame their contributions as relevant, useful, and worth consideration. The way in which they express their opinion or share the experience, is generally characterized by claiming expertise on the topic, prescribing and recommending basing on evidence, or the citation of external sources of information or appealing to the emotions of other participants[62].

This cycle is finally reinforced by participants who benefited from the information and advice leaving gratitude to the most useful comments and report back on the consumption decision made. This way, users with the same need can evaluate both the review more appreciated and the additive reviews under that one.

Due to a lack of reliability in the information provided by companies or market at large that are generally considered a source of conflict of interest, the interpersonal influence on such platforms is frequently preferable because of the neutrality of comments and genuinely of participants rather than marketers who have vested interests in offering advice that promotes their products.

Anyway, some problems could occur, related to those interactions: the overestimation of the validity of the information provided, the overextension of personal expertise to unrelated topics or the influence of emotions in rational arguments represent the main issues.

The main reason why those problems occur is because, in comparing the process described here to traditional types of interpersonal influence, it is important to note that one essential difference between traditional reference groups and online communities is the diversity of participants. If traditional word of mouth is constituted by group of people with similar characteristics as could be age, gender, ethic, passions and so on, the online communities are more heterogeneous

[62] Scaraboto, Vargas Rossi, Costa (2012)

bringing together individuals from various social and demographic backgrounds who share interests related exclusively to the community topic.

- **The Hidden Profile Problem**

One of the most powerful rationales for group decision making is that it provides a mechanism for channeling individual members' knowledge into productive organizational outcomes[63]. This assumption has been discussed under an optic of organizational behavior and social psychology arguing about the presence of a hidden profile problem. In fact, information can be distributed so that the optimal alternative is hidden, this particular situation is identified as a "hidden profile" task[64]. In a hidden profile problem, each member of a group receives both common and private information about the possible choices available.

There are many issues related with the interaction of those individuals because the piece of information provided aren't in conflict and the group is presumably working on a common purpose problem. This assumption is true especially in the buying process because is common for consumers to look for information on online platforms or asking the opinion of friends where preferences for the best alternative are the same across group members that will aspire to the best possible solution.

As a matter of fact, it happens quite often that freely interacting groups fail to choose the best alternative for two main reasons:

- the information shared tend to be of public domain spending much time discussing only common information rather than private, that represent the real key to emerge an hidden profile
- the information recalled show a preference in some discussions rather than others and for this reason some alternatives or relevant attributes can be excluded from the interactions.

So basically, the hidden profile problem is a judgmental error biasing the group in which feedback don't really help customers in the final purchase decision. That's the reason why, along with the high variety of choices, the uncertainty of the market segment can't be eliminated. The characteristics of every consumer lead to irrational behaviors evaluating a product in the wrong way or with only partial and incomplete knowledge.

The social psychological reasons why people tend to share prevalently common information rather than private are related to the trustworthiness in word of mouth, both online and offline because there's the conviction that when a group member mentions common information, its

[63] Lightle, Kagel, Arkes (2009)
[64] Stasser (1992)

veracity can be validated by another group member[65]. Due to this reliance on other members, also wrong or subjective feedback are considered true making this piece of information more likely to be collectively endorsed by the group even if does not reflect the opinion of some. The problem related with private information goes in the opposite direction; some fear to say something that is unpopular or will not find the support of other members because think that will not be validated. Given the fact that privately held information cannot be validated by any other group member, the group can be reluctant to consider and discuss personal opinions. A second motivation that could prevent a customer to share its private information is that will be reluctant if the information seems to be contrary to the prevailing group opinion[66].

So, due to the hidden profile problem, pieces of private information seem inconsistent with the common information, making at the same time the latter apparently more trustworthy basically because of the approval from the majority of group members.

Anyway, hidden profile tasks need not be those in which a majority/minority exists within the group[67]. If a group discussion is not able or willing to provide all the available but unique information, the group will choose the less optimal decision favored by the majority.

Information exchange between members of a group of customers happens through the simultaneous engagement of three activities (Briggs – 1995):

- Information recall that is the recalling of data from memory or notes. Because of the laws of probability information recall is biased by common information in the group.

The hidden profile process could be so explained because common information, known by all participants, is more likely to be remembered, where it is not the case for unique and private information that are known by only one consumer, for instance. Another factor that is strongly influencing recalling is the exposure, individuals are more likely to remember information the more they are exposed to it, also this represents an issue because, especially on online reviews, the bias to common information is reinforced. For those reasons, feedback don’t ensure the absolute truth; in group discussions, therefore, often the focus is on information that are not perfectly describing the personal experiences of many, because common information will be more likely to be recalled.

- Information exchange, consists in sharing a piece of information in both ways, receiving or giving a message to a counterpart.

[65] Stewart and Stasser (1995)
[66] Hartwick, Sheppard, & Davis - 1982
[67] A. Dennis - 1996

The exchange of information in verbal discussion is not perfect because there's a high probability that not all recalled information will be shared with the group. People can decide either to participate or not to a discussion and those who do that, will establish which could be their contribution to the information exchange, hiding something that for them could be not so important or superficial. So, participants assess the relevance of the information and the social implications of contributing it. The degree of relevance is evaluated by each customer considering the information's match to the current topic of conversation. A problem that generally occurs is that those groups of discussion tend to be thematic and follow a narrow and strict path of thought as stated by the "termed cognitive inertia" (Lamm and Trornmsdorff 1973). The reason why this happens is quite simple, the subconscious of the individuals tend to provide information related with the topic under discussion because it can appear more relevant than introducing new unique information that are not closely linked to the current conversation. The arguments are not depleted because social motivation is another factor that could also reduce the information that consumers choose to exchange. The initial consideration set represents the very first group of alternatives that come in mind even before starting the information research. People are often motivated to defend or support their initial preferences, so the contribution to the discussion is many times based on favor of their preferences or discredit alternatives. For this reason, many buyers tend to exclude from the information exchange the ones contradicting the preferences of the majority in consideration of how negative comments could be judged by other members[68].

To some extent, verbal discussions are more difficult than online exchange. During the process, are losses many opportunities to exchange information because of the need to take turns to speak. On the consumer's perspective, participants must compete with each other to find the opportunities to contribute. The time that lasts from a contribution to another represents a "production blocking" (Diehl and Stroebe 1987) that significantly reduces the exchange of information. When a customer is blocked from expressing himself at a given moment, a piece of information can be lost forever because often forget what was about to say or just suppress it because it seems less relevant or less important later in the discussion.

- Information use, also called information processing, is the actual use of the information. Tells about the way in which the cognitive and social implications of the information are assessed and stored the in memory.

This point is affected by the two previous steps because the individual's pre-discussion information and the choices generated form the set that is processed in the final stage. If the

[68] Hackman and Kaplan 1974

information evaluated supports the pre-discussion information and the choices, reinforcing the initial assumptions, will be processed and integrated also individually. Contrary to that scenario, the information that challenged the one previously sustained, will stimulate in the customer the tendency to develop counter arguments. If an argument provided by a review or a feedback, have some points supporting both sides of an issue, individuals tend to focus on the information that is in favor of their preference. For this reason, many times the effect of the active evaluation made from consumers is to strengthen preferences or products already in the initial consideration set[69]. This is the main reason why is difficult for a product to be added in the consideration or be the brand selected at the moment of the purchase decision and it also tells a lot about the behavior of buyers, more oriented in reinforcing their opinions rather than looking for real alternatives.

The way in which information is processed may also change depending on whether participants are aware of others' preferences. This is a crucial argument of discussion that shows the fallacies of distortions in consumer behavior. The participants of a conversation are influenced by the general opinion of the majority so that the preferences expressed by them are assumed to be correct and also the rest of the discussion group will focus on comparing their preference to the one of the majorities. On the other hand, the minority is obscured because different preferences sustained by a few people tend to be assumed incorrect. Only in the case in which the minority is solid and is able to find some valid points that confirm their position, also the remaining part of the group shows the propensity of considering them more trustworthy making attempts to understand it. It should also be considered the instance for which the information from minority participants may be perceived to be more independent or more dissimilar from one another than what stated by members of the majority.

In general, the collection of information for customers can get influences for different reasons. After obtaining information about others' preferences, buyers may alter their decision considering new aspects that more closely match that of the others. Others could even not really change their preference but just state a more socially acceptable preference than their true preference. This is made in order to comply with the majority preference or for a conformity with what is socially acceptable or closer to the behavior of people belonging to a specific status or group.

Nevertheless, an opposite point could be to publicly state a preference resulting in a stronger decision. The reasons behind are that the public commitment may make changing preferences more difficult because would be involved also the reputation of the customer. Another

[69] Lord, et al. 1979

motivation is that such statements may cause stronger internalization to reduce cognitive dissonance[70] and, finally, listening to public statements can reinforce the confidence in the choice of other customers that are still uncertain about what to do.

[70] Myers and Lamm 1976

Chapter 4: The model

4.1 Introduction: Buying Decision Process in Game Theory

With game theory attribution is possible to identify several points of contact across the customer's buying journey where companies should act to catch the attention of buyers. This allows marketers to paint a clearer picture of what they should do more, and, by consequence, understand where's better economize saving resources to allocate their money in a different moment or stage.

Nowadays, thanks to the explosion of big data, game theory application to such fields is feasible because the sources of information made the collection of data more accurate, amplifying the system that theoretically becomes clearer in explaining how a customer's buying journey works. Even if it doesn't claim to be the ultimate solution for marketing measurement, that still has some structural problems related to the rationality of decision making, this kind of analysis has a potential that keeps improving in the recent years.

The presupposition to take in mind is that people have limited cognitive resources, they often make use of shortcuts and tend to skip irrelevant details during the process of decision making. Simplifying is necessary, especially in consideration of the huge amount of information available today. So is clear that the problem of awareness should be understood in a larger sense. Is quite impossible to be constantly aware of every aspect of the game. Game theory considers players as with unlimited cognitive resources and capable to make choices in a quite infinite range of possibilities with total rationality. Basically, making the typical but necessary assumptions, is expected that every player involved in the game is rational and aware of all the rules of the game. Obviously, real life situations work differently so is necessary to accept the possibility that humans do mistakes, make a wrong evaluation of another player or of a product, deriving in irrational behaviors and considering suboptimal strategies that have to be adapted in game theory in order to create a model that makes sense and can be worthwhile for the scope in exam.

4.2 Elaboration of a Game in the Customer Decision Journey

First of all, is useful to recall the fundamental differences between Marketing Funnel and Consumer Decision Journey.

1) Customers have an active role in the buying process. Companies are influenced by consumer behavior because, differently from what is stated by funnel, buyers look for information, gain awareness and have touchpoints both with firms and other people.
2) The CDJ is not straightforward, an initial consideration set could be altered across the journey adding or removing brands in each step of the process.
3) Loyalty is a key concept that shouldn't be intended only as the fidelity but also as the opportunity for companies to have positive feedback from satisfied consumers that will advocate the brand also to new customers, influencing their decision journey.

A decision journey starts with a trigger. This trigger could be originated from the marketer that decides to introduce an incentive in order to stimulate demand or from the environment both passively and actively. Generally speaking, in a market where a demand-based equilibrium is decisive, production should decrease when demand decreases. In an ideal world, there's one and only product that can perfectly satisfy customer need so that if it is the best choice for a specific need, there shouldn't be too many variations of it on the market. If it is the case, the role of marketing should only be limited to the creation and promotion a product to a market that has not been successfully covered, without a real competition and so without a real strategy to be chosen between the big range of alternatives that characterizes the real scenario. The market is not exclusively dominated by the natural equilibrium between demand and offer. Market share and profit of each company is the sum of the effort put not only on the product or service provided but also on the perception and the beliefs that wants to transmit in the consumers in relation to the purchase, so an intangible added value that responds to the brand image that a customer receives in possession of that good.
Once basic needs are satisfied, the next stage for corporations is to make a step ahead and provide products with features of a higher level of desire. In order to do that, to make customers find the motivations to buy, firms will try to analyze this side of the human psyche and the way to attract them for a longer period of time. Add new characteristics that better match hidden and secondary needs of consumers, is an important strategy that often results to be the most successful one, in terms of long-term profit and market share. The tools and stratagems adopted to achieve this goal are often channeled through brand development, advertising and media. The other type of strategies appeal to impulse, emotions and spontaneous motivations to buy,

is the case of promotions, direct marketing, in-store direct contact and e-commerce. So, to summarize, economic agents will adopt several marketing methods and incentives to reveal the multiple benefits of a purchase.

Under a more pragmatic view, the success of a company that operates in a market with perfect competition, mainly depends on the differentiation of the product or service provided in order to make the customer prefer that specific product over the all possible alternatives available in the market. If the competition in the sector analyzed is not price-based, consumers are free to choose without constraints and limitations the way they prefer to satisfy their basic needs. So there's a sort of correlation between the facility and convenience with which is possible to select a product and the sensitivity to various types of incentives and external inputs such as promotions, brand image, media or social influence. Under this optic, making ratings is the best way to measure the success of a business or marketing strategy where is reasonable to assume that strong preferences are strictly related to the purchase of that product.

The problem taken in exam is a large-scale game played by self-interested economic agents and self-interested consumers who try to reach specific types of payoffs. The games are structured on the basis of small-scale matrices through marketing, in a way that, no matter the payoff the consumer receives, companies will make profit in each outcome. This way, companies can influence not only the payoffs, but also the actions set available to consumers that can be schematized in terms of patterns of consumption.

Whenever goods and services are able to fulfill their goals, consumers will play a dominated strategy in which they spend available resources that are intended in a wide sense as money, time, or simply energy, in order to receive the promised benefits of marketed products. People tend to respond more to commercial incentives and idealized benefits in response to the increase in consumption. Companies expect consumers to be more influenced by advertising in order to justify their choices in terms of immediate payoffs.

So, the intention of using game theory in a such diversified and intricate environment is to find a medium between the interests and points of view of both types of players. In terms of social utility, the best option would be finding an equilibrium strategy where none of them will have any incentive to "push the limits". This way, a strategic and responsible approach is needed to create a sustainable social and economic scenario for future generations.

4.3 Description of the Model

Let's consider two firms competing in the same market sector selling their products at the same fixed price: **p**. Both companies in exam start with the same budget **I** that have to invest arbitrarily between marketing and promotion and/or to improve the quality of products. The percentage of budget invested in quality is identified by $\boldsymbol{\alpha}$ so that the amount destined in quality is $\boldsymbol{\alpha}$**I** and the rest in advertising is **(1-**$\boldsymbol{\alpha}$**)I**.

When the **i** company invests, the final (or total) quality of the product is given by: $\mathbf{q_i=q_0+f(\alpha I)}$ with $\mathbf{q_0}$ as the minimum and intrinsic quality of the product without any investment in additional quality and **f** as the strictly increasing concave function such that **f(0)=0**.

After the first stage of the game in which companies decide about their decisions of investment, consumers enter in the game. Customers are assumed identical and are not observing the choices made in the first step by the companies.

At this point, they have to make two main actions: the first one is to decide how much to invest in research of information in order to be more aware about the quality of the product, a necessary step because consumers don't know exactly what is the quality of products offered by the companies in exam. This investment made by consumers in order to gain information can be intended in terms of time so is identified by **t**. The second action is decision-making, which one of the two products to buy and, by consequence, which company will make profits.

Research information represents a cost for consumers, in particular, associating a monetary or quasi-monetary cost to **t** is described by a linear function **ct**. Anyway, awareness represents a benefit for the consumer that, this way, can have a clearer idea of the effective quality of products and be more confident about the final decision.

Confidence and awareness are driven by the degree of uncertainty of a specific market segment, is related to risk and difficulty of gathering information. Hence, collect information permits the consumer to narrow the uncertainty. Mathematically, this concept is described by its distribution. At the very beginning, consumers have a rough idea about the quality so is generally presumed to have a quality with $\mathbf{q_i}$ mean and variance **v**. After the **t** investment in collection of information, variance is reduced to $vf = \frac{v}{r(t+1)}$. Less variance means less uncertainty implying a major utility for the consumer that is, by definition, risk-averse.

The coefficient **r** represents the return of the investment in information made by the customer. Due to the fact that all sectors have different features, the piece of information that could be obtained with research in a given time, differ from a market segment to another and according to the resources and instruments adopted across the journey.

More specifically, if is assumed that the expected value of quality is given by **q_i** mean and **v_f** variance, expected utility will be given by:

$$\boldsymbol{U(qi;vf;t) = qi - p - ct - kvf}$$
$$\boldsymbol{= qi - p - ct - k\frac{v}{r(t+1)}}$$

This utility function is in the form of a "mean-variance utility", the expected utility of the consumer in situation of uncertainty depends exclusively on mean and variance of the expected value **q_i**. In the above expression, **k** is a positive parameter that measures the risk-adversity. Consumers will choose **t** in a way that maximizes their expected utility.

This choice depends on two different but complementary approaches, on one hand purchasing decisions need and investment in time **t** that is individuated by the maximization of the utility function, with a rational approach adopted, on the other hand, the effective moment of buying is affected in part by the irrational influence of advertisements. This represents a behavioral distortion that is more marked for high values of **v** because that means consumer doesn't have a clear idea about the market and needs a higher investment **ct** to gather information.

For every product, a consumer attributes a relevance $vf/v = \frac{1}{r(t+1)}$ to advertisements and a $1 - \frac{vf}{v} = \frac{rt+r-1}{r(t+1)} = 1 - \frac{1}{r(t+1)}$ to the rational decision related to the expected utility.

So, the final choice of the product is done by the confrontation of the results given by the following expression for both products considered:

$$\frac{1}{r(t+1)}(1-\alpha)I + (1 - \frac{1}{r(t+1)})U(qi;vf;t)$$

In order to start the analysis, the first move is to find the optimal value of **t** (time) that is given by the maximization of the utility of customers. Practically, the mathematical passage to follow is to calculate the value which annuls the first derivative of the utility function:

$$\boldsymbol{U(qi;vf;t) = qi - p - ct - kvf}$$
$$\boldsymbol{= qi - p - ct - k\frac{v}{r(t+1)}}$$

$$U' = -c + \frac{kv}{r(t+1)^2}$$

$$U' = 0;\ -c + \frac{kv}{r(t+1)^2} = 0;\ t = \sqrt{\frac{kv}{rc}} - 1$$

This result represents the value of **t** that consumers have to invest in order to gather a piece of information that will maximize their utility, so it can be considered as the fair value that incentives the active evaluation of the alternatives and options available on the market.

Applying the same process to the "choice" function with respect to $\boldsymbol{\alpha}$:

$$\frac{1}{r(t+1)}(1-\alpha)I + (1 - \frac{1}{r(t+1)})U(qi;vf;t)$$

$$\frac{1}{r(t+1)}(1-\alpha)I + (1 - \frac{1}{r(t+1)})[\boldsymbol{qi - p - ct} \boldsymbol{- k\frac{v}{r(t+1)}}]$$

And considering qi=$\mathbf{q_0}$**+f(**$\boldsymbol{\alpha}$**I)** with $\mathbf{q_0}$**=0** and **f(.)** generic, the first derivative will be:

$$Cf' = -\frac{I}{r(t+1)} + (1 - \frac{1}{r(t+1)})f'(\alpha I)I$$

$$Cf' = 0;\ -\frac{1}{r(t+1)} + (1 - \frac{1}{r(t+1)})f'(\alpha I)I = 0;\ \ f'(\alpha I) = \frac{1}{r(t+1)-1}$$

Remembering that $t = \sqrt{\frac{kv}{rc}} - 1$ is the optimal value for consumers:

$$f'(\alpha I) = \frac{1}{r(t+1)-1} = \frac{1}{\sqrt{\frac{rkv}{c}}-1}$$

4.4 Comparative Statics

At this point, is possible to make an analysis of this final result.

For reasons of simplification, assuming for instance $f(\alpha I) = (\alpha I)^{\beta}$, with $0 < \beta \leq 1$,

$$f'(\alpha I) = \beta I^{\beta} \alpha^{\beta-1}$$

So: $\beta I^{\beta} \alpha^{\beta-1} = f'(\alpha I) = \frac{1}{r(t+1)-1} = \frac{1}{\sqrt{\frac{rkv}{c}}-1}$, isolating α

$$\alpha = \sqrt[1-\beta]{\beta I^{\beta} (\sqrt{\frac{rkv}{c}} - 1)}$$

Is now possible to consider each variable in account as a stand-alone to see how $\boldsymbol{\alpha}$ varies.

As already said, **I** is assumed to be fixed for both companies in exam, for the moment will be considered as a constant, that means all the factors influencing the investment done in quality or advertising depend exclusively on the characteristics of the market segment and demand.

In this expression, $\boldsymbol{\beta}$ represents the development in production, how much effort in terms of performance is necessary for a higher quality. Is reasonable to hypothesize a progressive fall of productivity due to the diminishing marginal returns, a small $\boldsymbol{\beta}$, closer to 0, is synonym of a moderate quality improvement, making the function markedly concave; on the other hand, for bigger values of $\boldsymbol{\beta}$, capped to 1, the function will be quasi-linear making the relationship between investment and output more strict.

The way in which $\boldsymbol{\alpha}$ is affected, is showed through the analysis of borderline cases:

$$\beta = 0 \Rightarrow \alpha = 0$$
$$\beta = 1 \Rightarrow \alpha = 1$$

This scenario suggests that harder it is to obtain a good level of productivity and, by consequence, of profitability, more companies have the incentive to push on advertising campaigns. It is an interesting and not so obvious result, it tells that in markets in which is not easy to gain a competitive advantage, like in a classic but theoretical perfect competition, is not recommended to invest in research and development, a move that some could think would guarantee to capture the whole market, while a successful strategy would be to leverage on the perception of a product that, at the end of the day, is not so different from competitors.

The opposite case is even more interesting: if is true that an improvement in quality would have a major impact on the market, it represent just an idealist vision because in an environment in which consumers are daily invested by information both from companies or other customers, is quite impossible to emerge without any kind of promotion.

As a matter of fact, is reasonable to consider $\boldsymbol{\beta}$ as a variable more or less close to a standard distribution with a mean around the center, in any case is acceptable to assume that companies will always opt for a mixed investment so is the case to make an examination of the other factors.

As already introduced **k** is a particular coefficient that measures how consumers are risk-averse, that's a positive number so extreme values are $\in [0; +\infty]$.

For small values of **k**, the aversion is not so significant making consumers more open to choices even without a big awareness about the market. That could happen for many reasons, or because the general level of trust in that market is high, or because the average quality of product is similar or simply because products are cheap or easy to evaluate.

In the opposite case is necessary to choose very carefully and gathering information is a crucial step, the final decision could be decisive or not reversible, like a surgery or purchasing of a house, just to make a few examples.

The same arguments are valid also for **v**, variance. It represents the level of uncertainty of the market, when is high, quality of products can vary a lot one from another so is required to consumers to look for information and make a clearer view of the situation. In contrast, a small variance reduces the risk of a wrong decision. Anyway, as already explained previously, uncertainty can never be eliminated also because the sources of information can't really tell what the optimal choice is. Feedback and reviews can present biases and the more a customer spends time researching information, more difficult and complex will be for him to really add something new to his knowledge. However, remembering the considerations above about **v** and **vf**, if the initial variance is already small, the consumer can take advantage of that making easier and faster the research necessary, and so, the expenditure in **t**.

Opposite discussion has to be made regarding **c**, it's the factor by which time has to be multiplied to determine the incidence and expense related to the research of information in the market. The bigger is its value, the more complex and costly will be the active evaluation of the customer. On companies point of view, if for customers is not convenient to collect information with the consequence that will be more influenced by advertising, higher is the value of **c**, higher is the incentive in a more considerable investment in marketing and promotion rather than in the improvement of the product.

In any case, **k,v** and **c** are three factors explaining decision-making of customers, related to time investment and **r** measures how difficult it is to gain information. For this reason, can be useful to make a general analysis of how observing the market demand could give some advices to firms operating.

If $\alpha = \sqrt[1-\beta]{\beta I^{\beta}\left(r\sqrt{\frac{kv}{rc}} - 1\right)}$

Recalling the expression of the optimal **t** value: $t = \sqrt{\frac{kv}{rc}} - 1$

$t = \sqrt{\frac{kv}{rc}} - 1 = 0 \Rightarrow \alpha = 0$

$$t = \sqrt{\frac{kv}{rc}} - 1 = \infty \Rightarrow \alpha = \infty$$

A result that is coherent with anything already discussed. As long as consumers will keep with their researches, the final purchasing decision will be more and more rational, leaving no room to the irrational side of external influences. In a segment in which is easy and relatively cheap to gather information and the general level of reliability in the average quality of product is high, marketing will not be a critical factor and companies will invest in the differentiation of products and enhancement of quality.

Fully aware that the range of $\alpha \in [0; 1]$, the latter case analyzed is just an exasperation of a concept that will never find a realistic application. Factors driving **t** never assume extreme values: risk adversity **k** finds its justification in the gravity and consequences of a choice but is balanced by the necessity to satisfy their individual needs, furthermore **c** can't be assumed as a zero value because is an intrinsic cost linked to the mere time flowing, the most critical element is for sure the variance **v** because in some market segments could be tricky to make an evaluation of very different and complex products, an issue especially related with services that many times are difficult to standardize and confront, in this case, the concept of **vf** is very helpful because it shows that researches will reduce the level of uncertainty, making customers more aware.

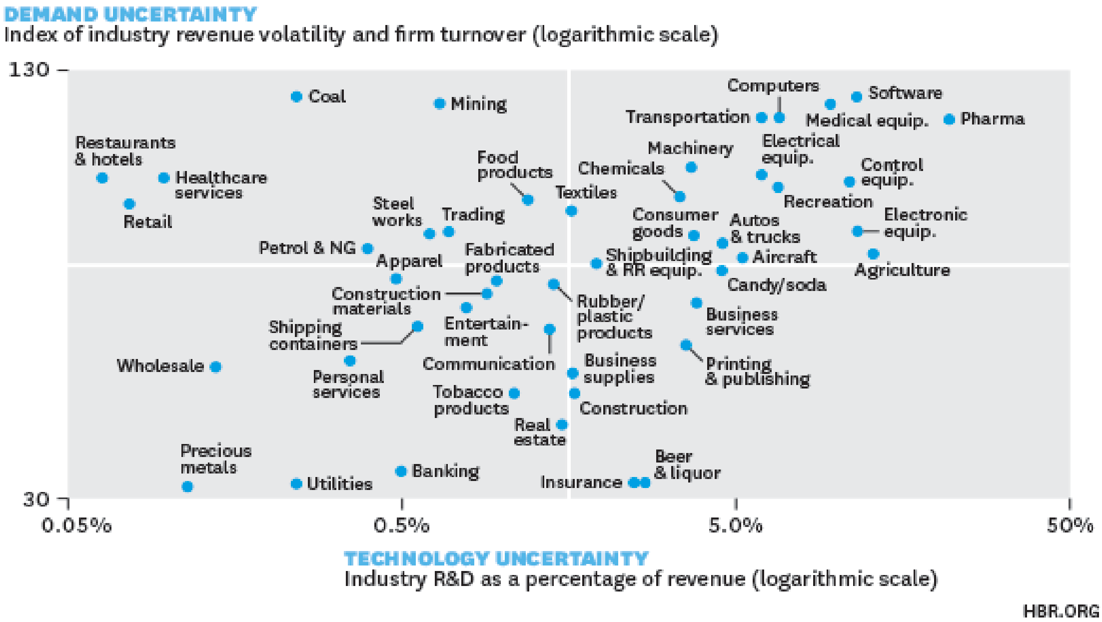
So, is logical to think that companies simply can't invest the entire budget in only one of the two areas ignoring the other. Of course, will opt for a mix in which **I** will be split according the market features.

To make a more general approach, have to be set some indices as above mentioned but most of them can be resumed in a statement that at this point became clearer.

All the factors influencing companies in the choice of **α** are connected with customers and broadly speaking with the environment in which perform, nothing else than the customer decision journey. As previously discussed, the phase that is most crucial and gives more chances to consumers to influence the mechanics of the market, is the active evaluation.

So, in a segment in which this phase is longer and customers are more likely to add products to the initial consideration set, people tend to be more aware of the environment, giving more credit to a valuable product rather than a good promotion. For this reason, could be interesting to show some particular markets and make a comparison with the model.

DEMAND AND TECHNOLOGICAL UNCERTAINTY BY INDUSTRY, 2002–2011



SOURCE COMPUSTAT, 2013

INDUSTRIES RANKED BY LEVEL OF UNCERTAINTY

	INDUSTRY	R&D OF SALES	REVENUE VOLATILITY	FIRM TURNOVER*
1	Medical equipment	8.2%	90.7%	13.1%
2	Computers	5.8	98.8	12.0
3	Computer software	9.8	69.9	14.4
4	Pharmaceutical products	17.4	63.3	12.7
5	Measuring & control equip.	9.3	97.0	8.8
6	Machinery	3.2	100.5	9.3
7	Agriculture	10.8	123.3	4.9
8	Electronic equipment	5.2	61.5	10.5
9	Chemicals	3.0	71.2	9.2
10	Electrical equipment	9.8	35.0	9.2
24	Business services	3.2	46.2	6.5
40	Business supplies	1.4	34.8	5.0
41	Shipping containers	0.5	65.1	4.9
42	Real estate	1.3	57.6	3.0
43	Beer & liquor	2.3	12.8	3.7
44	Personal services	0.3	59.7	4.4
45	Tobacco products	1.0	20.3	5.2
46	Insurance	2.2	30.4	0.9
47	Wholesale	0.1	14.1	6.3
48	Utilities	0.2	45.6	0.2
49	Precious metals	0.1	40.7	1.5

*PERCENTAGE OF (ENTRANCE + EXITS)/TOTAL FIRMS IN THE INDUSTRY PER YEAR. **SOURCE** COMPUSTAT 2013 HBR.ORG

Uncertainty of the market is basically identified by two main factors, demand uncertainty that explains whether customers are likely to buy the product, and technological uncertainty that refers to the equipment's needed. The aggregate level of uncertainty depends on how relevant both the indices are. In particular, the volatility of revenues mainly depends on how urgent and fundamental or of common use is the product. For this reason is not a surprise to see at the top of the scale goods that are purchased only occasionally or in a specific and unusual situation as it is for the pharmaceutical products, in particular for medicines against rare diseases; opposite discussion for wholesales that represent a basic and essential need for customers standing at the bottom of the classification.

Companies at the top of those graphs, have difficulty at predicting demand for their products and services and greater innovation management skills are required.

On a consumer perspective, this distribution follows to some extent his path of fulfilment of desires, from more concrete and practical, to more complex and specified. A behavior that is coherent with the model because in sectors in which is relatively easy for consumers to obtain what they are looking for, without many risks and at a reasonable cost, industries have no incentive in innovation and differentiation, for this reason if wholesalers push on marketing campaigns and promotions, a pharmaceutical product or medical equipment needs a way more exhaustive search and is necessary the support of an expert or even a compulsory prescription.

The trade-off of the consumer is to find the right balance between rationality and irrationality. On a side, he invests time to gain knowledge and choose a product at the best quality, fixed the price, on the other side, the cost for information research can't be excessive, so he lets external influences of advertising guide him in the direction of that company. The final decision depends on how long and expensive this process of evaluation is and how much customers intend to sacrificing time. Anyway the probability to purchase products in the initial consideration set is three times higher than the one added during the active evaluation, that means that in the majority of cases the aim of customers in making researches is not to find new brands but to understand more from the brands already in their mind.

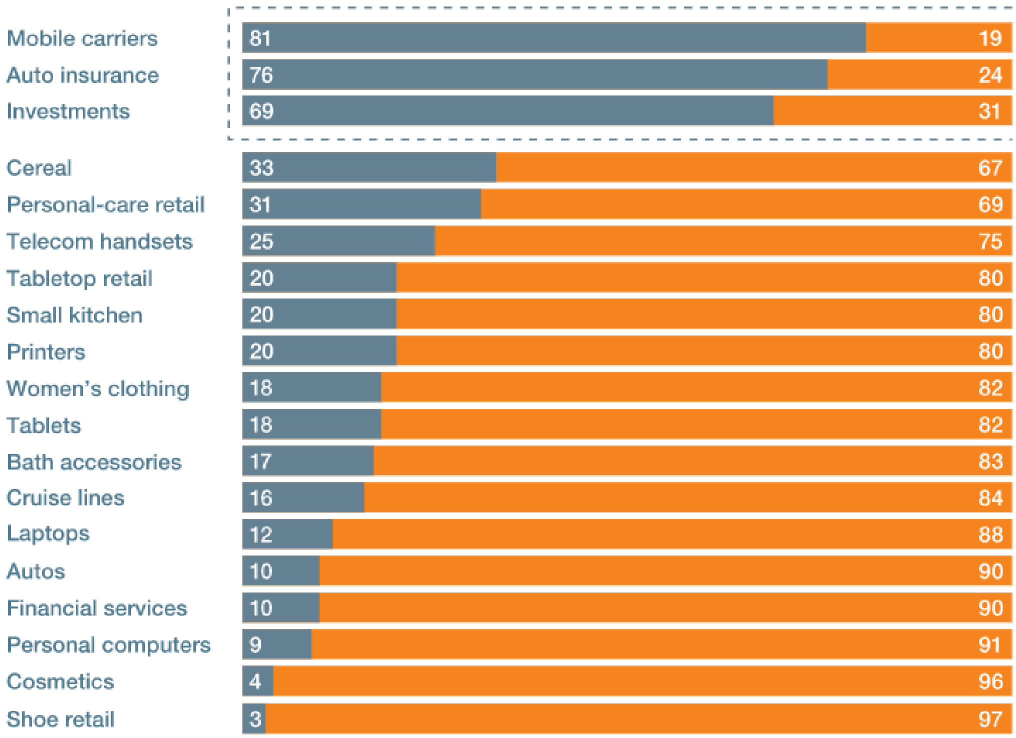
	Share of purchases, %			Average number of brands	
Sector	Initial consideration	Active evaluation	Loyalty loop[1]	In initial-consideration set	Added in active consideration
Autos	63	30	7	3.8	2.2
Personal computers	49	24	27	1.7	1.0
Skin care	38	37	25	1.5	1.8
Telecom carriers	38	20	42	1.5	0.9
Auto insurance	13	9	78	3.2	1.4

[1] For skin care, includes consumers who purchased their current brand 2 or more times in past 3 months and for whom current brand made up at least 70% of total category purchases in past 3 months; for all others, includes consumers who purchased same brand on current occasion as on previous occasion and did not consider any other brands.

Source: McKinsey consumer decision surveys: 2008 US auto and skin care, 2008 Germany mobile telecom, 2009 US auto insurance

From the chart above, is possible to see that the number of brands taken in consideration in the different stages of the journey, differs by industry. The general trend tells that there's an inverse relationship between loyalty and brands considered through the decision journey. That's another important factor for two main reasons: first, consumers in the loyalty loop are basically out of the game, second, lesser is the trust in a market or harder is the comparison between products, longer will be the journey and so more complex is the choice.

To have a more clear and general view of different markets dynamics, the study of loyalty driven segments can be extended for a more in-depth discussion.



The loyalty driven sectors are also those in which is more difficult to make researches and confrontations between brands mainly because technical specifications are not available or difficult to evaluate. For this reason, loyalty could be seen on another perspective, as the exasperation of the minimization of time expenditure in information. The intrinsic goal of loyalty is totally coherent with these results: loyalty programs are the sublimation of marketing, customer care, client assistance, promotions and incentives that of course are more effective in fields in which only experts can really discern the spectrum of possibilities.

So, as displayed, consumer behavior is influenced by a mix of **k, v, c** working together, just a few sectors have a very high **c** and, for this reason, loyalty driven sectors are the minority.

However, the relationship loyalty loop and active evaluation doesn't explain the whole market, risk adversity in **k** mainly depends on how dangerous a wrong decision could be, where the variance is harsher when products or services are less standardized. Commodities and primary assets are more fungible, easier to compare and with a small or inexistent switching cost. Here **c** is extremely low as soon as **k** and **v**, so companies generally tend to make profits in a different way allocating resources in other aspects or forms of promotions, generally based on price more than pure advertising.

4.5 How the Model applies the Consumer Decision Journey

Mutations of the social fabric reflected in the market dynamics calling into question the economic theories valid in the past.

The model described represents an evidence of what is missing in the classic funnel marketing approach. In fact, at the base of the model there's a concept of mutual influence between customers and firms that is corroborated by the results of the game.

Individuals were seen as much as "victims" of the market and the rudimental concept of marketing was merely of find a need and produce. Today consumers are more selective, two products or services apparently interchangeable can be perceived in a completely different way just because of a specific material feature or an immaterial added value, as a label.

This greater consciousness motivated customers to be more active in gathering information and emerged the necessity to design a new, more dynamic and bidirectional theory that found its realization in the customer decision journey.

Following the statements and indication of this theory, has been possible to develop a model that gave coherent responses. Companies are influenced by consumer behavior, their strategy depends on the means at the disposal of them so that more the market segment is characterized by the facility to gain information, the more quality differences will be easily noticed and at the same time, a costly and difficult research will discourage consumers in keeping with active evaluation, letting their irrational side prevail trusting advertisements or influencers without a clear awareness of the choice made.

The consumer decision journey is not straightforward, an initial consideration set could be altered across the journey adding or removing brands in each step of the process. This aspect is implicit in the model; the case analyzed is limited to alternative products, but it can be seen in a larger scale with the same results. Add or remove brands is the effect of comparisons: between products, between experiences, between values or between moments.

Look for information can be seen as a succession of confrontation in each occasion the new piece of information provides a new term of comparison. In this sense, time is a currency that has to be spent wisely because more time spending doesn't imply a better option but only a greater awareness about the possible alternatives.

Nevertheless, loyalty is a key concept that is widely discussed in the consumer decision journey with the notion of loyalty loop. The model of this paper doesn't cover directly this aspect but, considering that loyalty represents an opportunity for companies to have positive feedback from consumers through advocacy, the active evaluation phase in the decision making is affected by past experiences of other customers that could positively or negatively influence future purchasers.

All the considerations above are consistent with the model in which players move from a touchpoint to another capturing data from companies themselves or even their customers.

Despite all premises and simplifications, the model gives a substantial representation of the main trends of a market. Real applications are possible after a detailed study of the demand of the sector, more specifically, an investigation on typical consumer behaviors as the source of information, buying habits and benchmarks with the most successful companies.

Anyway, there are some issues related to the structure of the model that need to be discussed.

4.6 Possible criticism of the model

The assumptions made to define the model are principally three and need a separate consideration.

- the investment **I** is fixed
- the price **p** is fixed
- consumers are identical

The first hypothesis is about the budget at disposition of companies respectively for quality improvement of products and advertising campaigns. This is a serious issue because companies with more financial resources have an advantage compared to competitors.

This is true in particular in sectors in which advertisements drag the market. A huge gap between budgets has an impact on the firms because of a more effective marketing strategy, wide-ranging and detailed and at the same time gives new opportunity of development through research and development, a more qualified human capital and a more efficient production.

Anyway, this is not a determinant factor for many reasons. First of all, if for absurdity the level of **I** was strictly connected to the success of the company, all the markets should be oligopolistic because, on the limit of their production capacity, firms with more money to invest should be always preferred by customers systematically providing a better product. The second point is the modality of investment; the access to a huge capital is not synonym of a correct investment because, as the model showed, firms have to worry more about how to spread such money across the value chain rather than invest massively without a clear idea of the strategy to follow. Economic environment is a dynamic scenario in which businesses enter or exit the market pretty fast: only in Italy in 2017 has been declared the bankruptcy of 12000 companies[71], a data even decreasing in recent years. The sector of reference can present different barriers, but there's no clue that firms with a smaller initial budget can't aspire to profitability.

Different discussion has to be done for pricing.

It is a complex aspect that has to be carefully considered from marketers because it regards both the performance of the firm and the marketing strategy. Due to the potentially unexpected effects of price on consumers it is important to set the right price from the start.

Price **p** is strongly connected to the perception of the brand, generally to a high price is reconducted a better quality, so the product has to give something more than competitors to customers. Again, the talk about pricing is totally different in consideration of the sector of referment, the more the market segment provides standardized goods, the more will be difficult to differentiate the product, so also prices will be similar across the market.

However, the model developed is based on a quality-response coefficient that is even more difficult to determine empirically. If for instance would be relatively easy to delimitate the study on a specific sector checking the data on average prices of a market and make comparisons between alternative products simply confronting the price lists, manipulations of product quality would be in many cases impractical, requiring changes in the production processes that for some sectors can be an option not viable. Nevertheless, not all the attributes of a product can be measured or directly perceived, there are some characteristics that are brand related so, for some extent, also an investment in advertisements can be assimilated to an intangible quality improvement, with a reflection also on price.

In this sense, price takes a role of secondary importance, customers have some difficult in understanding the relationship between price and quality, mainly because they are not aware of the actual costs of production or the effective added value, rather they respond to to the task of processing price information.[72]

Another aspect that has to be taken into account is the difference between price image and actual price of the brand. Studies on pricing tend to consider the average price of the market segment analyzed but the application in real industrial dynamics could lead to mistakes because the

[71] Report Cerved (2018)

[72] Jacoby and Olson (1977)

specific pricing policy of the company examined could be an outlier or represent an exception from the distribution.

In any case the aleatory of price adoption from companies and reaction of customers represents a clear limitation of the model.

The third element of discussion is probably the most difficult to interpret.

All the considerations done on consumer behavior showed a clear scenario in which people with limited knowledge can be influenced from external inputs or influence one with another.

The main obstacle has been to find a way to incorporate irrationality in the model and, to assume an ideal consumer as representative of the demand, has been a fair solution.

According to the Occam's razor rule, the system works in concomitance of some preconditions: "the simpler the set of premises, the more accurate (testable and verifiable) a hypothesis becomes"[73]. In real life, being self-interested and rational are not sufficient descriptors of the players. People are more complex even if their behavior can be partly reduced to simple explanations. For such reason should be set different approaches to identify each individual because only one criterion would be reductive considering that the strategy that is most attractive for a self-interested, rational individual, would be completely different considering subjects with other traits that are trying to maximize their payoffs.

If in the model is considered the influence from advertising, it doesn't take into account the factors that have a subjective impact on consumer behavior. They can be sorted in three general macro-areas that affect both individuals and how they interface with the social context:

- Psychological factors

Regard the perception of a particular problem that is experienced in a unique way from every individual and this reflects on the perception of different products. Present situation, perception of needs and problems, the ability to process information and individual attitude are influencing psychological. Knowing that, companies have to focus on how they represent their product and the way is psychologically affecting consumers.

- Personal factors

It's the set of preferences, interests, personal choices of an individual. General characteristics can influence personal factors according to gender, age or status representing subfactor to take into account for marketing campaigns, for example to define segments, target and positioning.

- Socio-Cultural factors

[73] C. Butnaru - 2009

Consumer behavior is heavily affected by social influence that represents one of the major driving forces while making a decision. Factors incorporated in this category are social class, income, living society, workplace or company and more can have a major effect on consumer behavior. To the cultural factors belong also religion, race, nationalities and for these reasons leaders and influencers can be points of reference in an individual's decision-making process.

In consideration of those aspects, is clear that every customer behaves differently according to the subjective mix of factors that characterizes him.

The model analyzed is obviously a necessary simplification consisting in a static game in which alternatives are limited and players behave in conformity with the general assumptions of Game Theory. The first pillar is the strategic thinking, that means players make their decisions considering what others might do, the second assumption is the optimization, so agents will choose the best response in observation of the spectrum of possibilities available and third is the equilibrium with which beliefs and responses tend to be adjusted through the process of decision making until players will find an equilibrium that is mutually consistent[74].

Sometimes one or more assumptions are violated because in real life behavior is affected by irrational performances related to the complex situations in which people operate. In order to find a possible utility of those studies to explain consumer choices and other decisions, rationality may still be an adequate approximation even if a good percentage of players violates the theory.

Game theory works differently, establishes a link and a consequentiality of the actions and outcomes between players, so the presence of players who do not think strategically or optimize can therefore change what rational players should do.

If is taken in consideration a population of players that are not thinking strategically and are not optimizing their choices, the analysis necessary to make a prediction is more complicated and uses tools that account for bounded rationality.

Another issue that has to be examined is that instant equilibrium is utopic. In real life is quite difficult to reach an outcome in a one-shot game. Equilibrium is the end of a long process in which strategic thinking, optimization, and equilibration work.

[74] Bednar, Jenna, Scott Page - 2007

Conclusions

From the elaborate has emerged how the market can be described as a complex and dynamic system in which players reciprocally influence one with another.

Thanks to technological and social development, the role of consumers has drastically evolved, reshaping the concept of meeting between supply and demand, for which, past theories and studies identified customers as mere targets of companies, erroneously considered the only actors of the game.

Nowadays, a more realistic approach recognizes the active involvement of buyers in the decision-making purchasing process attributing them the power to influence each other or even force industries to adapt to their needs.

Marketing strategies have been sensibly affected by this new cornerstone with businesses that felt the urgency to adapt their planning: if in past years marketing was firm-centric, the whole concept today is consumer focused, with the consequent rearrangement of techniques, lesser and lesser destined to mass market rather to specific targets developing a product designed on the beneficiary customer.

In such environment, game theory represents a valid instrument that can provide a more schematized scenario that more clearly portraits how a buying process works.

The model in exam was specifically focalized on underlying the consumer behavior across a decision journey demonstrating how businesses choose the right allocation of resources according to what are expecting from customers to do.

The mathematical model showed that factors affecting consumer behavior are many, and just a few of them can be somehow controlled by firms; in this sense contrary to what one might imagine, companies have rather a marginal role in the decision making of buyers, downgrading brands to a mix of attributes that have to be compared with competitors.

On a side, players behave rationally and seek the best solution in accordance with their set of values, personal convictions and utility, on the other side let external forces drive them to a solution minimizing the costs of research. The model is consistent with the theoretical approach because rational and irrational sides can be assimilated to active and passive behavior that reasonably find their equilibrium in the research of an acceptable compromise between satisfaction of the purchasing decision and effort applied to reach that goal during the consumer decision journey.

Depending on the market segment and the set of traits establishing the consumer behavior, the balance between those two sides will be in a different combination of activities to whom companies have to be strategically prepared.
For such reasons is difficult to really determine if the starting point of the decision journey has to be attributed to buyers or sellers because, as a matter of fact, both of them send constantly reciprocal inputs through the many touchpoints in which those parties exchange information.
Even if the model represented in this paper is not perfect because there are many objective limitations and simplifications like the psychological factors regarding all the possible facets of human spirit, the theoretical model, as structured, is more coherent if applied to market segments characterized by low differentiability of products. This way is slightly reduced the probability of behavioral distortions from customers that are common in a opposite scenario, where is more reasonable to assume that, to different individuals, correspond different needs and, for this motivation, also the optimal strategy that will follow is harder to predict.
Besides that, in general, this model is affordable and in line with what stated by the Consumer Decision Journey theory for which customers have a primary role of independency with respect to companies. At the same time, we have seen that this is not completely true; not all sectors have the same characteristics and, for some, the more difficulty in the information acquisition results in a less conscious and autonomous choice as affirmed in the marketing Funnel.
The deficiencies proper to the mathematical model, could be re-evaluated in the future for a new discussion that takes into account aspects that, for the beneath of streamlining, have been treated in a more rational and uniform way than it should.
With this work, the objective has been to find a realistic representation of the buying process as a whole, providing a general indication of how firms should profitably respond to the actual behavior of the consumer. Being aware of the factors that influence consumer behavior, is helpful for firms in the phase on planification of their strategy: know buying habits doesn’t guarantee success because as demonstrated in the model, is the market itself to impact on the final purchase. A small change in one of the parameters, forces companies to readapt to any mutation of the demand, for this reason they need to observe the environment and be flexible and dynamic. There’s not a receipt for success, transactions are a continuous exchange of information in which the outcome depends on the ability to provide a product in line with what customers need.

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