The sport experience on the new online channel: an empirical analysis on Web, mobile and social network

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SOMMARIO

Gli ultimi anni stanno vedendo una forte crescita del settore eCommerce e in particolare di quello legato al mondo mobile (m-commerce) e a quello social (f-commerce). In parallelo anche lo sport e la filosofia del vivere “sano” sono sempre più diffusi.

Questo lavoro si propone di analizzare congiuntamente i temi del commercio elettronico e quelli dello sport, con particolare riferimento alle esperienze sportive che possono essere acquistate o prenotate online, tramite cellulare o social network, guardando in particolare al mercato italiano.

L’analisi è stata costruita partendo dall’offerta del Web, con particolare riferimento a siti Internet di prenotazione (per esempio Fubles.com) e a quelli di couponing (per esempio Groupon.it). Di queste si è analizzato il loro approccio multicanale (sito Internet, Facebook e App mobile). Si è poi passati ad analizzare più in dettaglio le funzionalità delle applicazioni per smartphone disponibili per piattaforme Android o iOS. Di queste è stato fatto un censimento esaustivo per quanto riguarda il mercato italiano, mentre per l’estero è stato preso un campione statisticamente rilevante. Nello specifico sono state esaminate le funzionalità di eCommerce, di accesso ai siti web tramite social network, di geolocalizzazione (tramite funzionalità GPS e mappe), di disponibilità di notizie e di funzioni aggiuntive. Per l’aspetto social è stato analizzato se l’applicazione è presente sul canale Facebook e con che modalità. Si è poi passati a vedere nel dettaglio le differenze tra le applicazioni italiane e quelle estere approfondendo quelle del mercato nazionale. Un focus su funzionalità di commercio elettronico e di social network connection è stato fatto, con l’obiettivo di evidenziare la situazione attuale e il trend nell’adozione di questi due paradigmi. L’ultima parte evidenzia come le applicazioni italiane si posizionano rispetto al mondo in termini di funzionalità eCommerce adottate.
ABSTRACT

Last years are facing a big increase of electronic commerce sector and in particular in the area of mobile (m-commerce) and social (f-commerce). At the same time also sport and fitness are rising their importance in life of people.

This work intends to jointly analyse the themes of electronic commerce and sports, with particular regards to sport experiences that can be brought or booked online, with the use of smartphones or social networks, giving more attention to the Italian market.

The analysis was built starting from the Web offer, with reference to websites that allow sport activities booking (e.g. Fubles.com) and couponing (e.g. Groupon.it). The multichannel approach of these actors (presence on the Web, on Facebook and with mobile App) was considered; then, we moved to analyse more in detail the functionalities of smartphone applications available on iOS and Android platforms. A complete census for the Italian market was made, while for the foreign one an exhaustive sample was extrapolated. Specifically, the functionalities regarding eCommerce, the access by means of social networks, the geolocation (through GPS and maps), the availability of news and the added functions were examined. The next step has considered the differences between Italian and foreign applications with a particular concern for the first ones. A focus on the functionalities of electronic commerce and social network connection was done with the objective to highlight the actual situation and the future trend in the adoption of these paradigms. The last part underlines how the Italian applications are positioned with respect to the world in terms of eCommerce functionalities adopted.
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EXECUTIVE SUMMARY

This study intends to jointly analyse the themes of electronic commerce and sport, with particular regards to sport experiences that can be brought or booked online, considering the different channels available: mobile, with smartphones applications, and social, with Facebook.

The objective is to identify opportunities and trends in this sector, finding the most common features used in mobile applications and the behaviour of the actors in Web and social environments.

The work is divided in two main topics: a literature review and an empirical analysis with the related considerations.

I. Literature review

The literature review analyses the work done by researchers, academics and institutions on four main topics: eCommerce in general, multichannel, sport eCommerce and the support of online booking to eCommerce of services.

eCommerce

Electronic commerce is a fast growing reality in the world of business; today is well affirmed all over the world but the definitions could be very different. A possible interpretation can be: ‘ECommerce is trading by means of new communication technology. It includes all aspects of trading, including commercial market making, ordering, supply chain management, and the transfer of money.’ Electronic commerce can take several forms depending on the degree of digitization of product or service sold, process and delivery method.

The development of eCommerce has followed three main phases: a first one based on EDI, a second one based on the Internet infrastructure and a third phase where eCommerce is considered as a concept with a combination of
commerce application and information technology. Research findings indicate that the majority of companies derived benefits that are oriented on satisfying customers, improving process effectiveness, increasing company growth in terms of income, increased learning by customers, and enhancing value generation.

In terms of transaction categories, eCommerce falls into five categories:

- Business to business (B2B)
- Business to customers (B2C)
- Business to governments (B2G)
- Governments to governments (G2G)
- Customers to customers (C2C)

The reports from the major research analysts show that eCommerce will grow in the next years. The major market is still USA followed by the British, Scandinavian and Japanese ones. Northern European countries have a well-developed system and a mature market while France, Spain and Italy are improving their situation; the Eastern Europe is an emerging market.

**Multichannel**

Nowadays the customer is at the centre of the information flows and he can use all the instruments that are more immediate to approach for him, they could be the more traditional ones like point of sales or physical stores (where he can directly touch and try the products) or they could be more innovative such as smartphones, mobile Internet, Web or social media. The use of more than a single-channel to sell goods to consumers is called multichannel retailing. Multichannel marketing enables firms to build lasting customer relationships by simultaneously offering their customers and prospecting information, products, services, and support (or any combination of these) through two or more synchronized channels.
The customer journey of a client can be subdivided in 4 main phases: presale, selection and buying, payment and aftersale. Different customer behaviours in each step of the process can bring different approaches to multichannel. Today the most used tools for eCommerce are the online website, the mobile applications or mobile websites and the social channels (in particular Facebook). The results are the so-called mobile commerce and social commerce.

Mobile commerce (also called m-commerce) involves the use of mobile computing devices in carrying out different types of economic transactions or enabling them to take place over space and time. The m-commerce includes the use of such technologies, as SMS services over a number of carriers, Bluetooth applications, and also the integration of low level digital carriers to IP based services through WAP or Compact HTML.

Social commerce can be briefly described as commerce activities mediated by social media. In social commerce, people do commerce or intentionally explore commerce opportunities by participating and/or engaging in a collaborative online environment.
Sport eCommerce

Sport eCommerce involves the buying and selling of sport products and services through the World Wide Web (WWW) and the Internet. Sport electronic business refers to the physical production and a series of electronic trading activities such as: production management, sport products marketing, electronic payment, logistic management and customer management. Many companies, sport clubs but also many famous athletes are moving their website from a pure information function to a more complex asset. Besides the classical information activity of the website are added activities in the field of eCommerce of clothes and merchandising, the sales of tickets for events and also the organization of online communities like forums, chats and others. In addition in the last years is growing the function of online live streaming of sport events. Sports and fitness is an excellent segment for eCommerce.

eCommerce and services: the support to online booking

Nowadays, the development and adoption of mobile technologies have made new services and related commerce more and more available. Some of the factors that contributed to this development are the tremendous development of the Internet and related technologies, the understanding and exploitation of the business potentials that rest behind this development, the boost of eCommerce frameworks and technologies and the impressive growth of wireless mobile networks.

Online booking tools (OBTs) are used increasingly by companies wishing to minimize costs while providing convenient booking features. Many factors influence online adoption, from the macro-economic context to organizational culture, but high adoption rates are possible, particularly when a comprehensive implementation strategy is implemented.
Online booking offers a lot of benefits for eCommerce companies: low transaction costs, lower average ticket price, and increase efficiency of booking process.

E-payment is a subset of an eCommerce transaction that includes electronic payment for buying and selling goods or services offered through the Internet. With the growth of business on Internet, new electronic payment methods are evolving: e-wallet, e-billing, e-cheque are the most important.

II. **Empirical analysis**

This work is focused on eCommerce sector and in particular on the analysis of Italian market related to the mobile applications developed for sport experiences. The processes of organization, booking and on-line payment were considered, by checking their presence, as embedded functionalities, in the applications. Only free applications were considered.

The methodology followed in order to carry out the research was the following:

![Diagram](image)

**Figure E.0.2 - Personal elaboration of the logical process phases**
First, we searched for the most known websites that offer sport experiences or manage sport events and, on this sample, a multichannel approach was considered. Then, we looked for mobile applications regarding sport experience on App markets and a deep analysis of their characteristics was carried out.

**Search for sport websites**

The searching of websites that offers sport experiences or the possibility to manage sport events (e.g. booking of a football match) was performed regarding to the Italian market. Two categories of websites were analysed: the ones that provide tools for organization or managing and the most known couponing websites that sell sport experiences.

**Analysis of sport websites multichannel approach**

For the found websites, a first framework of analysis was carried out in order to understand the different approaches to multichannel. Three aspects were considered:

- The presence on social networks (Facebook, Twitter or others)
- The possibility to connect with the Facebook’s account
- The presence on mobile application markets of Android and iOS

**Search for mobile application regarding sport experience**

The research of applications was done for the two main markets available for smartphones: App Store for Apple iOS and Google Play Store for Android. We considered worldwide applications that are visible from the Italian market and the research for Apps was made by keywords or inside “Sport” or “Fitness” that are the two most relevant categories.
Analysis of sport application characteristics

The applications were divided in three main categories plus the market of reference:

- Specific sport: applications developed for a single sport with specific functionalities
- Sport facility/club: applications including services and information about a sport facility or a sport club
- Purchasing/managing: applications that allow booking or purchasing via smartphone or help the organizations of sports.

Further characteristics were analysed: news, social functions, eCommerce, localization and activity management.

For all the mobile applications, a deep analysis on their social approach was done, understanding if they have or not a profile page, a Facebook application or a fan page (a further distinction was made between “tactical” page, that has only an information function, and “strategic” page, that has a more active function with promotions, discounts or other features). In addition, the number of fans and the frequency of updates were counted.

The next analysis was carried out considering only the Italian offer dividing the applications in four categories: foreign Apps that work only in foreign countries, foreign Apps that could be used in Italy, Italian applications for Italy and Italian applications that can be use also outside the boundaries.

The last focus done is related to eCommerce functionalities with a chosen sample of applications that have one or more of this feature: a list of prices or discounts, the possibility to make a reservation and the possibility to directly pay with the smartphone.

Finally, a cross analysis between eCommerce function (the ones explained above) and social function (none, tactic, strategic) was carried out both for the world applications and for the only Italian ones.
III. Summary notes

The analysis showed that among the 34 websites found, the payment functionality appears to be mainly used by couponing ones, while the organization is focused on the research of facilities and users requested to carry out the sport.

![Graph E.0.1 - Personal elaboration of website database composition](image)

The fact that the access to the functionalities of the website through the Facebook account is present in less than half (44%) of the considered websites, confirms that Italy is still behind for what concerns the social approach, useful as alternative channel for own business.

For the analysis of the mobile applications was created a unified database for free apps in the sport category found in the stores of Apple and Google Play; the 350 applications have been divided into three unique categories, each item belongs only to one category, the proportions of which are shown in Graph E.2.
The golf and ski applications deserve a separate consideration because they emerge as the most numerous in our sample; due to the large size of the area required to play the sport, these applications can take advantage of the functionality "Geolocation" even during the activity, indicating in real time the user's location and its distance from the structures of the plant.

For the analysis of the social channel, only Facebook was considered and it emerged that Fan Page usage, despite the higher spread, is not yet perceived as an opportunity to expand its own market or to interact with users; despite the possible benefits of adopting the “Strategic” configuration, the need to have a dedicated position for the communication to the users with a consequent increase of the effort both from economic point of view that organizational, represents the major obstacle.

The analysis of Italian market considered 198 applications; they appear to be especially addressed to the execution of a particular sport, while those intended to the sport centres form the smallest category; a possible explanation can be given whereas in Italy the provision of services, in our case of those sports, is still using traditional methods (reservation by phone call or e-mail and the payment in place).
The focus on eCommerce involves 122 applications that have at least one functionality related to electronic commerce. Despite the application developed for sports facilities represent two-thirds of the total, the most important feature, "Payment", is present only in 23% of cases; the cause is not due only to the companies that manage the sport centres, but also to the absence, in Italy, of appropriate IT infrastructure to support the related processes associated to the online purchase via mobile devices.

Then, a chart considering eCommerce and social functionalities were developed and two clusters of applications were analysed.

![Diagram showing two clusters of applications based on eCommerce and social approach degrees.](image)

**Figure E.0.3 - Personal elaboration showing the two clusters**

The first cluster includes those applications that have a low level of social approach and eCommerce degree; the large number of applications, with respect to the total sample, is due to the greater ease of development and management of the application itself.
The second cluster, consisting of the applications with a medium/high social approach and a medium eCommerce degree, may represent the starting step with regard to the use of social networks as alternative channels for own business and to the adoption of eCommerce; a possible evolution for the applications present in this cluster is represented by the upwards shift, through the addition of functionality "Payment"; the introduction of this feature is the arrival point as regards the exploitation of the potential of eCommerce in the own business.

Taking into account what has been done in the previous stages, the degree of adoption of eCommerce applications of the sample intended for the Italian market was compared with the values of the sample itself. The distribution of applications of the two samples was virtually identical and therefore the considerations made in the previous chart remain valid.

Finally, in order to assess the best positioning of the applications, has been developed a new chart in which, for each of the quadrants, is reported separately the number of applications belonging to each of the three categories.
1. LITERATURE REVIEW

1.1 Introduction to eCommerce

1.1.1 Definitions

The term "eCommerce" as having a range of possible interpretations, from the narrow transactional view to the very broad view that refers to a way of doing business. (McGeachie, 1999).

Perhaps the most useful way of describing eCommerce is to use it to link it to trading:

‘eCommerce is trading by means of new communication technology. It includes all aspects of trading, including commercial market making, ordering, supply chain management, and the transfer of money.’

There is plenty of evidence of eCommerce everywhere one looks on the World Wide Web. Many commercial websites have catalogues, and quite often it is also possible to place orders on the Web, but eCommerce is more than this. It includes everything from sourcing to settlement, and all the processes that underlie trading, as shown in Figure 1.1. (Garrett & Skevington, 1999)

![Figure 1.1 - Buying process](garrett_skevington.png)
We can define electronic commerce from several perspectives:

- **Business process**: electronic commerce is doing business electronically by implementing processes over electronic network, thereby substituting information for physical business process.

- **Service**: electronic commerce is a tool that addresses the desire of governments, firms, consumers and management to cut service costs while improving the quality of customer service and increasing the speed of service delivery.

- **Learning**: electronic commerce is an enabler of online training and education in schools, universities and other organizations, including businesses.

- **Collaborative**: electronic commerce is the framework for inter- and intra-organizational collaboration.

- **Community**: electronic commerce provides a gathering place for community members to learn, transact and collaborate.

Electronic commerce can take several forms depending on the degree of digitization of:

- Product or service sold
- Process
- Delivery method

The possible configurations of these three dimensions determine different levels of eCommerce. A product can be physical or digital, the process may be physical or digital and the delivery method may be physical or digital. These alternatives create eight cubes, each of which has three dimensions.
In traditional commerce, all three dimensions of the cube are physical; in pure electronic commerce all dimensions are digital. All other cubes include a mix of digital and physical dimensions. (Turban, Lee, King, Liang, & Turban, 2009)

E-tailing business models can be classified by the distribution channel used, distinguishing five categories:

1. **Direct marketing by mail order companies**: that takes place without intermediaries bypassing traditional wholesale or retail distribution. Firms with established mail-order businesses have a distinct advantage in online sales, given their existing payment processing, inventory management and order fulfilment operation.

2. **Direct sales by manufacturers**: the parties in direct marketing have a great opportunity to influence each other. Sellers can understand their market better because of the direct connection to consumers, and consumers gain greater information about products though their direct connection to manufacturers.
3. **Pure play e-tailers**: virtual e-tailers are firms that sell directly to consumers over the Internet without maintaining a physical sales channel. Virtual e-tailers have the advantage of low overhead costs and streamlined processes. However, one drawback can be a lack of established infrastructure to support the online front-office activities. They can be general purpose or specialized e-tailers.

4. **Click and mortar retailers**: a click and mortar retailer is a combination of both brick and mortar retailer and an online transactional website. Many click and mortar retailers started life as a traditional storefront with a physical retail presence only and over time adopted an online transactional capability as well. Another type could follow the opposite way: started their businesses online and then expanded to physical storefronts as well. Brick and mortar retailers conduct businesses in the physical world.

5. **Retailing in online malls**: online malls are of two types: referring directories and malls with shared shopping services. The first type is basically a directory organized by product type. When users click on the product they are transferred to the storefront of the seller where they can complete the transaction. In online malls with shared services, instead, a consumer can find a product, order and pay for it, and also arrange for shipment. The hosting mall provides these services but they are usually executed by each store independently. (Turban, Lee, King, Liang, & Turban, 2009)
1.1.2 History

The development of computer science and communications sciences has laid a solid foundation for eCommerce. The development of information security makes eCommerce proceed in a secure way; the laws concerning this field also provide legal guarantees for eCommerce. The origin and development of eCommerce is illustrated in Figure 1.3, through three phases:

![Image of eCommerce evolution](figure)

**Figure 1.3 - eCommerce evolution [Quin]**

**Phase One: eCommerce based on EDI (Electronic Data Interchange)**

EDI is a kind of teleportation method to transmit business documents from one computer to another. Because EDI reduces the paper note greatly, people vividly call it as “trade without paper” or “bargain without paper”. From the perspective of technology, the EDI includes both hardware (mainly the network) and software (mainly software and standard of EDI). For the sake of safety, most EDI were not transmitted by network until the 90s of 20c, but by VAN (the Value Added Network) of exclusive use. What EDI needs is a standard software to translate information in the customer databases into the EDI-standard so as to deliver. Because the business enterprise of different professions adopt different format on the basis of their own business characteristics, therefore when transmitting documents, they must be translated into the EDI standard format.

**Phase Two: eCommerce based on Internet**

EDI enjoys advantages and tremendous strength in decreasing enormously the intensity, mistakes and cost to make and handle documents on one hand, and in improving efficiency to a large extent on the other. Therefore, it speeds
up the development of international business. However, the high cost of VAN and EDI communication system hinder the expansion of eCommerce based on EDI. Moreover, EDI is only suitable for large-scaled transnational corporation rather than medium and small-sized ones, for it do not take information share into account. Since both the increasing large-scaled transnational corporations and many medium and small-sized enterprises thirst for information sharing, the establishment of a new electronic information exchange system of low cost is on the agenda to realize the information sharing.

In the middle and late 90s of the 20th Century, owing to the prompt popularity of Internet, from universities to enterprises, and then even to common people’s families, Internet operates from the information sharing to a popular mass media. After 1991, business that has always been outside of Internet came into the realm and made eCommerce a big hit in Internet, which gives impetus to the rapid development of Internet. Many enterprises made a big success by online direct marketing such as Dell Company, distinguished for direct online selling, online book store Amazon, Yahoo Internet search engine, Baidu Internet search engine, Sina, Sohu, and eBay. Such websites are up to 424,000 in 1998, comparatively only 2,000 in 1995. By 2001, Internet has become the largest network in the world and covered up to 150 areas and countries, linking more than 25,000 networks and 520,000 mainframe computers. The flourishing of Internet makes flood of enterprises unable to resist the temptation to start eCommerce.

The reason why eCommerce based on Internet is so attractive to enterprises is that eCommerce enjoys several evident advantages over eCommerce based on EDI:

1. Low in cost. The expense of Internet is low, no more than 1/10 of VAN in general.
2. Wide in overlaying. Internet spreads all over the world, by which trade partners can conveniently send commercial information and documents with common telephone wires.

3. Complete in function. Internet can help different users to carry out their targets of different levels, such as issuing electronic commercial information negotiating on line and setting up virtual department stores and online banks etc.

4. Flexible in use. ECommerce based on Internet is not confined to agreement of special data exchange. Any commercial document can be formed by filing the screen documents that are identical with the current paper documents. Such documents can be understood and used directly by anyone without any translation.

Internet meets the demands of medium and small-sized enterprises to exchange electronic data by overcoming the shortage of EDI Internet lower in cost, wider in coverage and better in service, will certainly replace VAN as the hardware carrier of EDI. Electronic information exchange system with the characteristics of being both lower in cost and able to share information makes itself popular among all enterprises. EDI based on Internet enjoys the advantages of both EDI and Internet; therefore, EDI realized by means of Internet is directly called as “Internet EDI”.

In eCommerce based on Internet, at first, people mainly make daily “business correspondences” by e-mails, and then release information by Internet. Since 1995, enterprises have gradually turned to Internet to release information.

Therefore, the public can directly access to the enterprise information, goods and services by Internet, which leads to the exploration of information issuing system represented by the technology of Web and becomes the principal application of Internet.
Phase Three: e-concept eCommerce

Since early 2000, people's understanding has developed from eCommerce to higher e-concept eCommerce, and it is realized that eCommerce is in fact the combination of information technology and commerce applications. Apart from business, electronic information technology can be applied in many other fields, such as medical treatment, education, hygiene, military, administration and so on, to form e-concept in the fields. (Qin, 2008)

1.1.3 Competences

Research findings indicate that the majority of companies derived benefits that were oriented on satisfying customers, improving process effectiveness, increasing company growth in terms of income, increased learning by customers, and enhancing value generation.

In adoption of B2C initiatives, organizations operating entirely online faced greater impediments in their e-business adoption than their offline counterparts. In particular, absence of clearly defined performance measures for online organizations requires attention, as well as technical issues relating to system’s capacity, and development of customer knowledge. Small offline organizations that are increasingly trying to establish online presence have to overcome impediments related to investment, technical skills, and understanding of solution suitability and overall relevance to their core business activities. It is recommended that obstacles need to be identified, and then minimized through active learning and collaboration with customers, management, and internal business units.

Organizations that have successfully adopted business-to-consumer initiatives demonstrate that a combination of strong customer focus, clearly defined performance measures for e-business activity and incorporation of those measures in decision making process, a clear link between value proposition and measures, incremental development process of e-business present the critical success factors. These factors suggest that organizations
likely to succeed in B2C e-business adoption concentrate on developing e-business knowledge relevant to their core business and they consider changes that may occur in customer relationships and create response to those through adjustment of value proposition. Finally, such organizations are able to measure how well they are delivering their value proposition to the customer.

From a management perspective, an important implication is that e-business adoption requires consideration from a long-term perspective, and in congruence with organizational strategic direction. Only by approaching e-business from such a perspective can managers ensure that e-business adoption is appropriate, relevant, value adding, and operationally as well as strategically viable for an organization instead of being a result of apprehensive compliance. (Dubelaar, Amrik, & Vedrana, 2005)

There are other enabling factors that encourage electronic trading, such as the increasing use of non-cash methods of payment (such as credit card) that do not require physical presence. Multinational companies are looking for even more globalisation of trading. With fast and low-cost communication to potential customers, the attraction of trading electronically via the Web is obvious. However, the nature of trading by the Web brings other new advantages:

- the Web is targeted, narrowcast rather than broadcast: it is easier (and potentially cheaper) to identify the right customers and identify their needs;
- the Web is two-way: much faster interaction with customers is possible than by TV or newspaper advertisements, or by mail-shots;
- the Web is global: no other trading method offers an instant global market;
- the Web is cheap: allowing lower cost of entry than many conventional methods of trading.
Clearly there are also limitations in eCommerce. Where a customer buys goods electronically (rather than visiting a shop) it may not be possible to physically see or handle the item before buying. Such goods must also be physically delivered. Some service industries do not, on the face of it, lend themselves to eCommerce. You cannot deliver a pizza electronically! However, you can order it by phone, and there are cost savings in taking the order (and paying for it) electronically. (Garrett & Skevington, 1999)

According to (Manvi & Venkataram, 2005) an eCommerce website should be designed so that the visitor can become a buyer. The principal characteristics that can help to reach this goal are:

- user-friendly interface (nice, simple and intuitive browsing);
- the description and presentation of the product has to be adequate and exhaustive for all the characteristics;
- structured and intuitive organization of the contents;
- product availability and simplicity of the buying steps;
- attractive design.

### 1.1.4 Sectors

In terms of transaction categories, eCommerce falls into five categories:

- Business to business (B2B)
- Business to customers (B2C)
- Business to governments (B2G)
- Governments to governments (G2G)
- Customers to customers (C2C)

B2B, the mainstream in eCommerce and the principal method to improve competition ability in the competitive market, has come into existence for many years with the characteristics of carrying out commercial activities by EDI via special networks or Value-Added Networks (VAN, for short). B2C takes place between business and customers, in which online sales are
carried out by Internet, such as the online bookstore Amazon. In recent years, the increase of number of netizens and new transaction platforms created by Internet for enterprises and customers speedups the rapid development of eCommerce. With regard to customers, it is unnecessary to set a unified standard for document transmission because only credit cards, e-money or e-wallet are involved in online sales and payment. In addition, searching and browsing functions and multimedia interface supplied by Internet facilitate consumers to look for and give an insight into products wanted. B2C has enormous potential and will be the main drive for the development of eCommerce. B2G, the business between enterprises and governments, is still in its experimental phase, focusing on administrative management, governmental invited tender, and the implementation of various economic policies etc. C2C, the individual consumption behaviours, has not yet taken shape, such as the second-hand market. (Qin, 2008)

Some common applications related to electronic commerce are the following (Zorayda, 2003):

- Document automation in supply chain and logistics
- Domestic and international payment systems
- Enterprise content management
- Group buying
- Automated online assistants
- Instant messaging
- Newsgroups
- Online shopping and order tracking
- Online banking
- Online office suites
- Shopping cart software
- Teleconferencing
- Electronic tickets
If we look in detail business to consumer eCommerce we can find useful information in the report of (Osservatorio eCommerce B2C, 2012) that states that the most important sectors in Italy are:

- Tourism: online ticketing and booking
- Publishing: online sales of books and similar
- Apparel: brand websites ecommerce and clubs
- IT: computers and electronics

### 1.1.5 Market data

#### World

British Interactive Media Retail Group recently released “B2C 2012 overview of global electronic commerce ”. The report shows that in 2011 global B2C eCommerce sales rose to 690 billion euro, in 2013 this figure is expected to exceed 1 trillion euro.

In 2011, the global eCommerce sales grew of 20% and are expected, over the next few years, that will continue to maintain this growth rate. Among them, the Chinese eCommerce market growth rate doubled in 2011, which is one of the most important reasons to promote the rapid growth of global eCommerce.

The report points out that the United States still is in the global B2C market of electronic business affairs in a leadership position, its sales in 2011 reached 223 billion euro, followed by the British 78.5 billion euro, 77.5 billion euro in Scandinavia and Japan. The annual per capita consumption is 2,124 euro per capita in the world. In 2011 the European eCommerce market growth of 19%, beyond North America as the world market leader in electronic commerce.

The Asia-Pacific region is one of the main driving forces for the global eCommerce growth. Especially the Chinese eCommerce market in 2011 rose as high as 130%. Other strong growth in markets include Brazil and Russia,
with 35% annual growth rate and part of the Middle East national eCommerce growth rate that is close to 50%.

By the end of 2011, the global Internet users number was approximately 2.2 billion, the next two years is expected to close 3.5 billion, equivalent to 50% of the world population. British Interactive Media Retail Group said that the number of Internet users, with the growth of online shopping, is gradually increasing and the number of electronic shops will also increase rapidly. (British Interactive Media Retail Group, 2012)

**Europe**

In general, Europeans are among the world’s most enthusiastic users of the Web. As of March 2011, the total number of Internet users in Europe alone reached 476.3 million, compared to 1.63 billion users worldwide. Moreover, by 2014 the European online population is expected to grow by nearly 20%, with countries such as Poland, Russia, Ukraine and Turkey as the main drivers for this growth.

Although the European Union is striving towards a single market, great divides in eCommerce maturity and IT development persist. Generally speaking, the Nordic countries in addition to the Netherlands and the UK are most advanced, while countries in South and Eastern Europe are catching up fast. Access to broadband Internet has increased strongly in the new EU member states and the proportion of consumers having purchased goods online has grown accordingly.
The European eCommerce space cannot be regarded as a single big market in itself, as there are significant differences from country to country. According to (de Lange, Longoni, & Screpnic, 2012) we can speak of three blocks:

- A **mature market** in Northern Europe, including the UK, Germany and the Nordic countries, where between 60% and 80% of all Internet users are e-shoppers. The UK stands out as the world’s leading country for eCommerce. In 2011, the online spending in UK reached 68 billion pounds, up by 16% as compared to 2010, while in 2012; the online spending segment is expected to increase by 13% year-on-year, accounting for 77 billion pounds.

- A **growing market** in France, Italy and Spain, where the total number of e-shoppers is lower compared to the numbers of Internet users, but the number of new e-shoppers is growing at a rapid pace.

- An **emerging market** in Eastern Europe. The growth potential for eCommerce is high in Central and Eastern European countries, despite the relatively smaller size of the eCommerce turnover and lower consumer spending.
In 2011, nearly 58% of Internet users in the EU27 shopped online, as compared with 57% in 2010 and 54% in 2009; the proportion of e-shoppers among Internet users ranged from 74% in the Netherlands to 13% in Romania and Bulgaria.

The eCommerce market is definitely going to move forward during the coming years as broadband penetration rates will increase and more importantly, the mobile Internet will grow and fuel the convergence of online and offline channel. (de Lange, Longoni, & Screpnic, 2012)

**Italy**

In Italy can be noticed a positive trend of growth around 20% in 2012, the same of 2011, that is in contrast with the actual world economic crisis. The following data come from the last report of Osservatorio eCommerce B2C of Politecnico. The market estimation is based on the measures of products and services sales made online exclusively from Italian websites towards final customer (both Italian and foreign). In this research were not considered home banking, online gaming and digital contents that can be used directly online.

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**Graph 1.2 - Value of sales from Italian websites [adapted from Osservatorio Ecommerce B2C]**
The biggest part of this growth is given by two new main actors that enter in the market: couponing and online clubs websites.

Despite the crisis that see a global reduction of consumption of 2% respect to 2011, the value of Italian web shopper grew till 19% reaching the 10 billion euro. The web shoppers are increased a lot and now they are around 12 million (the 40% of Internet users).

The good results in the increase of the transaction of eCommerce, equal to 1.4 billion euro, are given for the most part by apparel and tourism sectors; then we find computers and IT (10%), insurances (10%), publishing, music and video (3%) and then grocery (1%). The other sectors give an important contribution to the total because here are included the Couponing websites that, by themselves, count of 25% of the absolute growth.

The expansion of the market is pushed by the new phenomena of the eCommerce like the already mentioned couponing websites and the entry of Amazon with the Italian site; they contributed with 430 million euro, that is one third of the total increase, confirming the “boom” that happened in 2011 with the consolidation of their numbers.
The balance between Export and Import of Italian eCommerce is largely negative and become worsens in 2012, going from 1,270 to 1,370 million euro. The eCommerce market, intended as value brought from Italians, is nearly 11 billion euro, registering a positive +12% in 2012.

Osservatorio’s report said that export of eCommerce B2c is mainly generated by Tourism and Apparel, they accounts respectively for 58% and 30%, while is less meaningful the contribution of the other sectors. The concentration level is very high: the first five export companies account for two thirds of all the foreign sales.
Graph 1.4 - Value of eCommerce purchases from Italian customers, division import/export [adapted from Osservatorio eCommerce B2C]

Graph 1.5 - Value of eCommerce purchases from Italian customers, division by players [adapted from Osservatorio eCommerce B2C]
The purchases of Italian customers on foreign websites are for the majority about airplanes ticketing (e.g. Easyjet, Ryanair), computers and IT (e.g. eBay.com, Pixmania.com) and, finally, about apparels and shoes (e.g. Asos, Zalando, Spartoo). If taken singularly, the other categories imported online in our country, are negligible.

Also in 2012 product sales (+29%) has a grow rate higher than services (+14%). The online shopping of Italian customers strongly remain unbalanced on services, than in 2012 account for 68%. This situation is misaligned with the rest of the principal markets where the products sales represent the 60% of buying. Looking at the last three years trend, we can notice that, even if slowly, the percentage of products sales is growing, passing from 29% of 2010 to 32% of 2012.

Graph 1.6 - Division between products and services sold in Italy through eCommerce
[adapted from Osservatorio eCommerce B2C]
The penetration rate is still higher for services (7%) than for products (1.2%) and registers different values sector by sector. For some of them the online has come to have a relevant percentage (such as tourism with 20%), others have a discrete penetration (such as IT with 7%). The apparel sector has a scarce coverage (2%) and segment like grocery, DIY and furniture has negligible percentages. (Osservatorio eCommerce B2C, 2012)

Figure 1.4 - Penetration rate of eCommerce respect to the sales value [adapted from Osservatorio eCommerce B2C, data based on ISTAT]
1.2 Multichannel

Nowadays, the customer is at the centre of the information flows and he can use all the instruments that is much immediate to approach, they could be the more traditional ones like point of sales or physical stores (where he can directly touch and try the products) or they could be more innovative such as phones, mobile Internet, Web or social media. Therefore the customer could choose the one that prefers and the one that his more comfortable to him.

The use of more than a single-channel to sell goods to consumers is called multichannel retailing. Multichannel retailing could include physical stores coupled with mail-catalogues to try to boost sales, or physical stores coupled with online-stores, kiosks, or wireless channels, or a combination of the above. With increasing competition, retailers tend to move towards channel proliferation. Consequently, with growing competition in the marketplace and the increasing reach of the Internet, several retailers are moving from being purely single to multichannel, with the Internet representing the most common multichannel complement to an existing physical store strategy. (Shashank, Goldsby, & Iyengar, 2009)

There is evidence that customer shopping patterns have evolved in response to multiple channel retailing (Wallace et al., 2004) and that multichannel shoppers have higher expenditures than do single-channel customers (Kumar and Venkatesan, 2005). Consequently, a growing number of firms attempt to provide multiple integrated channels (Bendoly et al., 2005) as a way of retaining customers and minimizing the consequences of service failures on alternative channels. The multichannel strategy extends beyond retailing to a wide range of services (e.g. airlines, mobile phones, hospitality, healthcare, banking and financial services, and courier companies). (Cassab & MacLachlan, 2009)

Multichannel marketing enables firms to build lasting customer relationships by simultaneously offering their customers and prospects information,
products, services, and support (or any combination of these) through two or more synchronized channels. Thus, for example, a firm might deploy multichannel marketing strategies and tactics to help customers to browse for product information at a Website, then purchase at a store and later obtain technical support over the telephone. By carefully synchronizing its channels, a firm creates superior channel service outputs and gives its customers fewer reasons or opportunities to switch to competitors because of inconvenient channel access, or loss of control in interacting with the firm. Also, by tracking customer behaviour across channels, firms can improve their understanding of their customers’ decision making and develop a basis for creating strong relationships with customers and improving retention. (Arvind & H. Van Bruggen, 2005)

In multichannel architecture some core elements are necessary, as is shown in (Lankhorst & Luttighuis, 2009):

- Clients: different situations lead to different needs, demands and preferences;
- Services: their characteristics may influence channel usage, for instance group information service, individual information or transaction ones;
- Providers: every service is offered by one or more service providers. There are three main responsibilities in the service delivery process to take into account: these are accountability, coordination and execution;
- Channels: they are the medium through which the firm and the customer interact.

Each of these elements is important in the purchase process because during the first phase, the client searches and selects the right service, channel and/or provider. Then, the service provider delivers the service to him via chosen channel. For this purpose, he has to perform all kinds of internal processes and functions using various automated systems in the back-end to actually realize this service.


Customer behaviour

On this issue two topics emerged: how the presence of an offline (retail) channel influences propensity to use an online channel and, secondly, how service delivery in the online channel will influence customer propensity to use the offline channel. These issues represent both a positive of cross-channel operation (the benefits of a retail channel for online shopping) and also a negative of such operation (the danger of customer loss in all channels due to poor service in any one channel). Different customers may display different reactions to these issues, thus, to determine variance in such activities, the influences of demographic and behavioural-attitudinal variables must also be considered. (Piercy, 2011)

The customer purchasing process (Howard and Sheth 1969) is a helpful model to point out the differences between the two types of retailers; the purchase model differentiates phases where a company:

- claims someone’s attention (acquisition);
- offers information to potential customers (information);
- settles a transaction with a customer (settlement);
- keeps customers recurring (after-sales).

![Figure 1.5 - Integrated view of purchasing phases in multichannel [Teltzrow, Berendt, & Günther]](image)

Figure 1.5 depicts an integrated view on the purchasing phases at multichannel and pure Internet retail websites. The settlement phase has been further differentiated into order, payment and delivery phases to point out characteristics of multichannel retailers. The dotted arrows indicate the
sales path at pure Internet retailers; in contrast, the continuous arrows indicate transition phases at multichannel retailers where online customers can switch to the use of traditional offline channels.

For each single phase of the customer purchasing process differences between multichannel retailers and pure Internet players have been pointed out:

1. In the acquisition phase a consumer is attracted to go to a retailer's website; all visits on web pages that are semantically related to the initial acquisition of a visitor belong to this phase; in contrast to Internet-only retailers, visitors on multichannel retail sites may have been referred from physical stores to the site.

2. In the information phase a customer collects information about products and services; on a retail site, all visits on pages providing an overview of product categories and single product pages belong to this phase; in contrast to Internet only players, multichannel retailers can provide information about offline services in this phase; for example, information about offline services and physical stores can be offered on the website.

3. The first step of the settlement phase begins when a customer enters the order process; all steps before payment and delivery belong to this phase such as the check-out of the shopping cart or input of customer data.

4. In the payment phase, multichannel retailers can offer an additional payment option to their customers; in contrast to pure Internet retailers, multichannel customers may pay cash in-store.

5. Multichannel retailers can also offer more delivery options than pure Internet retailers; they may offer their online customers to pick up products in-store.

6. In the aftersale phase, multichannel retailers may extend an additional service to their customers: defect or unsatisfactory orders may be returned in physical stores.
The analysis of multichannel characteristics in the customer purchasing process facilitates the identification of five distinct website services on multichannel retail sites:

- **Store locator**: multichannel retailers can offer pages allowing online visitors to find physical stores in their neighbourhoods.
- **Inventory check**: site visitors may check inventory or search for special offers in physical stores.
- **Offline pickup**: visitors may place an order online, but pick up products in a physical store.
- **Offline payment**: online orders can be paid in a physical store.
- **Offline returns**: online orders can be returned in a physical store (Teltzrow, Berendt, & Günther, 2003)

Another model of customer behaviour is given by (Osservatorio eCommerce B2C, 2012) in their last research report. The buying process is subdivided in four main phases:

![Figure 1.6 - Personal elaboration of buying process according to Osservatorio eCommerce B2C](image)

While the channels considered are:

- Offline store
- ECommerce website
- Mobile
- Social
From this perspective three macro models are carried out:

1. Use of eCommerce website and offline points of sale
2. Use of eCommerce website (plus some point of sale) and mobile channel
3. Use of eCommerce website (plus some point of sale) and social channel

Figure 1.7 - Description of the models [adapted from Osservatorio eCommerce B2C]

**Macro model 1: eCommerce website + points of sale**

The 60% of the merchants analysed by the Osservatorio have, at the same time, an eCommerce website and a point of sale or presence on the territory; some of them are pure Internet player that, despite they were born to operate only on the Web, opened on the physical channel some point for the collection of the products (owned or of third parties) or they make partnerships with local retailers. This macro-model is used by bookstores or in consumer electronics.

When the eCommerce website is used to give information to the client in the decision making process we speak about *Info Commerce*; this is the most used model where the customer use the offline channel except for find information about product/service because the website give more detailed and precise information. In this case the company has positive results for communication and customer management (direct relationship).
The second model is *info Store*: in this case the offline phase is the sourcing of information while the purchase, the payment and the after sale is made online; it is used by the merchants that own point of sales and want to avoid the risk of stock out and want a better efficacy for the presale communication. If the customer finds specific knowledge in the point of sale can give more value to this approach.

The third model is *Book and collect*, diffused among the consumer electronics merchants; this model allows the client to book online the product and collect and pay the product in the point of sale. In this way the client has a
bigger control over time and the overall process. It is well seen by the customers that want to physically touch the product before the purchase. For the merchants the strengths are related to communication, customer management and service level.

![Image](image1.png)

**Figure 1.10 - Book and collect model [adapted from Osservatorio eCommerce B2C]**

In consumer electronics and apparel sectors, where the returns management is important, is diffused the *Instore support* model; in this case the after sales services are requested online giving more assurance to the client to buy online because there will be a physical point of assistance.

![Image](image2.png)

**Figure 1.11 - Instore support model [adapted from Osservatorio eCommerce B2C]**
The last model is called *Pick and pay*: the process is online except for the retrieval and payment of the product that is made at specific points, typically at the carrier warehouses. This allows to have less problems related to deliveries and give higher conversion rate.

![Diagram of Pick and pay model](image)

**Figure 1.12 - Pick and pay model [adapted from Osservatorio eCommerce B2C]**

**Macro model 2: eCommerce website + mobile**

Companies have two ways to be present on the mobile channel: with a mobile website or with an App; this second case is the most appropriate if we want to offer innovative functionalities.

The first model that could be applied is the *Info mobile*, the most adopted between the companies that offer the mobile channel; merchants give presales information over smartphones. This model gives the opportunity to increase the moment of contact and the profiling of the customers.
Figure 1.13 - Info mobile model [adapted from Osservatorio eCommerce B2C]

Store locator provides that mobile is still used for communication and presales with the clients, with the objective to bring the customer in the shop where occur the buying process.

Figure 1.14 - Store locator model [adapted from Osservatorio eCommerce B2C]

The third model is mobile Commerce: selection and buying of product/service is made on the mobile channel; this is applied when is important the moment of sale in order to catch an offer, train and air ticketing, online clubs, couponing, online auctions, hotels booking are the principal areas of application.
The last model is called *mobile Support*; here the mobile channel is used in the last phase of the process. The after sales services like order tracking and management or the activation of high-value activities are allowed on the smartphones. Some examples are the online check-in for flight carriers or the claims report for insurances.

**Figure 1.15 - Mobile Commerce model [adapted from Osservatorio eCommerce B2C]**

**Figure 1.16 - Mobile Support model [adapted from Osservatorio eCommerce B2C]**
Macro model 3: eCommerce website + social

Nowadays social networks are well diffused everywhere, and so merchants have activated many initiatives on different social websites; the most important are: Facebook, Twitter, YouTube, Google+ and Pinterest.

Facebook and Twitter are used mainly for institutional communication because there are few applications that permit the direct order fulfilment on the social site; YouTube is used for commercials and promotional video.

There are three possible multichannel models presented below.

The most diffused is the Info Social that means the use of social networks (in particular Facebook) in order to give information to customer in the presale phase; the other phases will be done online or on other channel. Leveraging on the huge customer base merchant can achieve engagement and brand communication with clients.

![Image of Info Social model](https://example.com/info-social-model.png)

**Figure 1.17 - Info Social model [adapted from Osservatorio eCommerce B2C]**

The real social Commerce intended as the interaction between customer and merchant aimed at concluding a transaction directly on Facebook is poorly adopted in Italy; the few players active in this way want to give a sense of exclusivity and to share experiences.
The third model is *social Support* and uses the social channel in the aftersale phase; it is difficult to be applied due to the high resources needed in order to give a high level of assistance; the few active players collect feedbacks interacting with their customer on social networks.
1.2.1 Mobile commerce

Electronic commerce continues to see phenomenal growth, but so far the most eCommerce development involves wired infrastructures. We believe emerging wireless and mobile networks will provide new avenues for growth, creating new opportunities in mobile commerce. The exponential growth of wireless and mobile networks has brought vast changes in mobile devices, middleware development, standards and network implementation, and user acceptance.

![Figure 1.20 - Mobile commerce framework [Varshney, Vetter & Kalakota]](image)

Figure 1.20 shows a possible framework for mobile commerce, which lets companies develop strategies and create mobile commerce applications. The framework defines several functional layers, simplifying the design and development so that different parties (vendors, providers, designers, and so on) can address individual layers. By using this framework, a single entity is not forced to do everything for developing its own mobile commerce systems, but can build it on the functionalities provided by others.
The framework includes a user plane with four levels:

- **Applications**: many new applications are becoming possible and many existing eCommerce applications can be modified for a mobile environment.

- **User infrastructure**: the design of new mobile commerce applications should consider the capabilities of the user infrastructure (the mobile devices).

- **Wireless middleware**: with its ability to hide the underlying network's details from applications, while providing a uniform and easy-to-use interface, middleware is extremely important for developing new mobile commerce applications.

- **Network infrastructure**: in mobile commerce, service quality primarily depends on network resources and capabilities; the framework also provides a developer-provider plane, which addresses the different needs and views of application developers, content providers and service providers. (Varshney, Vetter, & Kalakota, 2000)

Mobile commerce (also called m-commerce) involves the use of mobile computing devices in carrying out different types of economic transactions or enabling them to take place over space and time. The m-commerce includes the use of such technologies as SMS services over a number of carriers, Bluetooth applications and also the integration of low level digital carriers to IP based services through WAP or Compact HTML. This integration is one of the fastest growing markets of e-business and it will involve the development and design of a host of new applications, services, business models and technological solutions. The theme is both topical and challenging, as the number of potential mobile terminal users is huge and will be dispersed among various types of consumer categories. (Lyytinen, 2001)
There are some key attributes that offer the opportunity for development of new applications that are possible only in the mobile environment:

- **Ubiquity**: it means being available at any location at any time; wireless mobile device such as a smartphone or a tablet PC can deliver information when it is needed, regardless of the user's location; ubiquity creates easier information access in a real time environment, which is highly valued in today's business and consumer markets.

- **Convenience**: it is very convenient for users to operate in the wireless computing environment; mobile computing devices are increasing in functionality and usability while remaining the same size or becoming smaller; unlike traditional computers, mobile devices are portable, can be set in a variety of monitoring modes and most feature instant connectivity.

- **Interactivity**: in comparison with desktop computers environment, transactions, communications and service provision are immediate and highly interactive; businesses in which customer support and delivery of services require a high level of interactivity with customer are likely to find a high value-added component in mobile computing.

- **Personalization**: mobile devices are truly personal computer devices; they are almost always owned and operated by a single individual; this enables consumer personalization.

- **Localization**: knowing where a user is physically located at any particular moment is important in order to offer relevant mobile services in real time; such services are known as location-based m-commerce. (Turban, Lee, King, Liang, & Turban, 2009)

The power of m-commerce is primarily due to the anytime-anywhere connectivity of wireless devices, which provides enormous opportunities for business process innovation and location-sensitive services. Many believe that m-commerce is going to substantially extend current operations in ecommerce. Unfortunately, many attempts in m-commerce have so far failed to meet expectations. Especially disappointing was the failure of WAP
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(Wireless Application Protocol) as a platform for Web access from wireless devices. This failure has significantly slowed down the linkage between m-commerce and Internet-based eCommerce. It is not the technology by itself, but the proper use of technology that decides the success or failure of an application. The challenge when applying mobile technology to support business transactions is to determine whether a particular application is suitable for m-commerce. (Liang & Wei, 2004)

According to the latest research from Strategy Analytics, the number of smartphones in use worldwide surpassed the 1 billion-unit mark for the first time ever in the third quarter of 2012. It has taken 16 years for the smartphone industry to reach this historic milestone. (Bicheno, 2012)

The mobile ecosystem is well developed today. The growth of mobile application, the diffusion of tablets and the introduction of LTE (4G) standard for wireless communication are all enabling factors for mobile commerce. The forecasts predict that in 2015 will be more smartphones than PCs and will be more Internet users from mobile that from personal computers. The availability of mobile applications is very huge (about 1.5 million) and the specific App market for tablets is increasing. (IDC, 2011)

The diffusion of the three main categories of digital devices in 2012 is the following: for cell phones the number of SIMs in the world are about 5 billion while the users are 4 billion. The PCs are around 1.5-1.6 billion (considering both laptops and fix), the tablets are even more than previous years (about 192 million). In Italy we have a lot of cell phones (90 million SIMs and 50 million users), 41 million PCs and 2.9 tablets.
In Europe the leading countries for digital divide are the Scandinavians. Norway, Sweden and Finland have a broadband’s penetration over 86% and the Internet users are more than 90% of the population. Then there is Germany with 83% of broadband’s penetration and computer users. Italy has higher digital divide in comparison with the main countries in Europe: the Internet users are only the 57% of the population and the broadband is used only by 62% of Italian families.

On the contrary, on mobile sector, Italy has a big advantage in comparison with the other European countries. Cell phones have penetrated 152% of the population (that means more than 1.5 phones per inhabitant), half of mobile phones are smartphones and 41% are the users of mobile Internet. The rest of Europe has a lower mobile phone penetration (132% in Germany, 125% in Scandinavian countries and 105% in France).

The worldwide mobile phones market grew 1.9% years over year in the fourth quarter of 2012, as strong holiday smartphone sales raised shipments of these devices to levels nearly equal to those of feature phones. According
to the International Data Corporation (IDC) Worldwide Quarterly Mobile Phone Tracker, vendors shipped a total of 482.5 million mobile phones in the fourth quarter of 2012 compared to 473.4 million units in the fourth quarter of 2011. For the full year, the global market for mobile phones grew 1.2% on shipments of more than 1.7 billion units.

In the worldwide smartphone market, vendors shipped 219.4 million units in the last quarter of 2012, which represents 45.5% of all mobile phone shipments, the highest percentage ever. The 36.4% year-over-year growth was slightly below IDC’s forecast of 39.5% for the quarter. On an annual basis, 712.6 million smartphones were shipped globally in 2012, which was 44.1% more than in 2011.

Shipment of smart devices (including smartphones, tablets, and PCs) is estimated to double in number to 1.84 billion units worldwide by 2016; however, a shift in platforms in the next few years is inevitable.

<table>
<thead>
<tr>
<th>Smartphone Penetration (% of mobile phone users) in EU5 Countries</th>
<th>Oct-11</th>
<th>Oct-12</th>
<th>Point Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU5</td>
<td>41.6%</td>
<td>54.6%</td>
<td>13</td>
</tr>
<tr>
<td>Spain</td>
<td>48.4%</td>
<td>63.2%</td>
<td>14.8</td>
</tr>
<tr>
<td>UK</td>
<td>48.1%</td>
<td>62.3%</td>
<td>14.2</td>
</tr>
<tr>
<td>France</td>
<td>38.1%</td>
<td>51.4%</td>
<td>13.3</td>
</tr>
<tr>
<td>Italy</td>
<td>42.1%</td>
<td>51.2%</td>
<td>9.1</td>
</tr>
<tr>
<td>Germany</td>
<td>34.2%</td>
<td>48.4%</td>
<td>14.2</td>
</tr>
</tbody>
</table>

**Figure 1.22 - Smartphone penetration in EU5 countries [ComScore MobiLens]**

The smartphones penetration in Europe is around 55% in 2012 having an increase of 13% in one year. That means 131.5 million users, according to ComScore’s MobiLens research. Italy, that some years ago had the highest penetration rate, has now an average value due to the fact that other
countries like UK and Spain are growing faster in this sector. Also in US the threshold of 50% has passed this year, according to Nielsen.

The last report of ComScore said that at the ending of 2012 the market in Europe reached an average of 57% smartphone penetration (calculated on EU5). Spain leads the rankings with 66% of mobile users owning a smartphone in December 2012, followed by the UK with 64% (both countries were above the European average of 57%). In France and Italy, smartphone ownership was at 53% amongst the mobile population, with Germany concluding the rankings at 51% during the three month average ending in December 2012. (ComScore, 2013)

In Graph 1.7 we can see the trend of the smartphones diffusion in Italy. The forecast is to reach the 48 million activated smartphones by 2015. Now the market is growing more than 20% each year but obviously will slow down in the next years.

Graph 1.7 - Smartphone diffusion in Italy [adapted from Osservatorio mobile Internet, content & Apps]

Regarding the world of operative systems, Apple and Google’s grip on the world smartphone market tightened even further during Q2 of 2012, with everyone else’s combined share falling to 15 per cent from 34.3 per cent in
the year-ago quarter. The analysis chart RIM’s (Blackberry) decline, from an 11.5 per cent share to 4.8 per cent in a year, and Symbian’s even steeper fall: down from 16.9 per cent to 4.4 per cent. Windows are increasing its presence on the mobile market thanks to his new OS and the partnership with Nokia. It is supposed to be a two actor’s race in the future between the operative systems of Google (Android) and Apple (iOS) (IDC, Worldwide Quarterly Mobile Phone Tracker, 2012)

Graph 1.8 - Mobile OS market shares 2011-2012 [IDC]

In Italy the operative systems market shares are calculated by “Osservatorio Mobile Internet, content and Apps”. The situation is more or less aligned with the world statistics; the most used OS is Android with 44% of the total market, followed by Apple’s iOS. In the near future we'll see an increase of the power of Google operative system at expense of RIM and Microsoft. (Osservatorio mobile internet, 2012)
Known as next generation eCommerce, m-commerce enables users to access the Internet without needing to find a place to plug in. Mobile commerce (also known as Ubiquitous Commerce (U-Commerce), owing to the ubiquitous nature of its services, is the ability to conduct commerce, using a mobile device e.g. a mobile phone (or cell phone), a PDA, a smart-phone while on the move, and other emerging mobile equipment, like desktop mobile devices.

Six business applications have been identified:

- Extended packaging: consumers access additional information about products through their mobile phone.
- Content purchase and delivery: digital products such as videos, games and music can be tried and sold via mobile phones.
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- Mobile coupons: mobile phones are used both to capture and redeem coupons and discounts.
- Authentication: mobile phones are used to check whether or not a product is genuine.
- Re-ordering: mobile phones are used to reorder products with orders sent to the supplier in a standard format.
- Mobile self-scanning: consumers in supermarkets use their mobile phone (rather than a device supplied by the supermarket) to scan products as they do their shopping.

A B2C m-Commerce model may use some or all of the following applications and technologies to share information with customers:

- Company Website
- Online catalogues
- E-mail
- Online advertisements
- Message board system
- Newsgroups and discussion groups (Felicitta & Jayanthi, 2009.)

Mobile commerce market drivers are:

- Surging growth of eCommerce: mobile online shopping is a subset of general eCommerce and, consequently, increases as eCommerce grows.
- Shifting consumer behaviour: empirical evidence shows that a growing percentage of consumers, particularly smartphone users, are choosing to shop via mobile instead of via desktop computers, even when a desktop computer is readily available, due to the convenience and the personalized experience mobile can offer.
- Innovative merchant use cases: 2010 has been a period of tremendous creativity for merchants and their vendors who are involved in mobile online shopping, as they have launched compelling innovations that take advantage of the unique nature of mobile.
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- Rapidly growing addressable market for mobile Internet: adoption of mobile Internet usage is exploding; while the number of actual users of mobile Internet is smaller, the market for capable devices is quite large.

- Aggressive marketing of 3G network capability: most MNOs (Mobile Network Operator) have fully-installed 3G networks and are eager to have consumers utilize them; so, they are offering appealing data packages, both prepaid and post-paid, and mobile Internet-capable phones to entice customers to use mobile data. User requirements are growing faster than ever and the limitations of the current mobile communication systems have forced the researchers to come up with more advanced and efficient technologies. 4G mobile technology is the next step in this direction. 4G is the next generation of wireless networks that will totally replace 3G networks. Here are some of the features of 4G which make it an “above all” technology: high performance (4G will feature extremely high quality video, download speeds are very high), interoperability and easy roaming (global standard that provides global mobility), fully converged services (4G delivers connectivity intelligent and flexible enough to support streaming video, VoIP, email, browsing, etc.), low cost (4G systems will prove far cheaper than 3G, since they can be built atop existing networks and won’t require operators to completely retool and won’t require carriers to purchase costly extra spectrum). (Khan, Qadeer, Ansari, & Waheed, 2009)

- Smartphones: smartphones enable merchants to offer a very rich and uniquely mobile consumer experience in mobile online shopping. While non-smartphone users are also conducting mobile online shopping, the majority is currently smartphone users.

- Consumer familiarity: mobile Internet eCommerce sites are a logical extension of familiar PC-based online eCommerce experiences.

- Encourages impulse buys: no longer tethered to bulky laptops, consumers can buy goods and services via eCommerce anytime, anywhere from their personal mobile devices.
The market barriers of mobile commerce are:

- Inconsistent user experience: not all consumers will experience optimized mobile Web browsing, due to the varying quality in the wide variety of available handsets.

- Detailed browsing limitations: desktop online shopping gives consumers the ability to quickly browse and search a great variety of products and offers them access to detailed product information; due to the form factor of most mobile handsets, a large portion of these advantages do not translate to mobile.

- Cross-border issues for eCommerce, m-commerce: some eCommerce merchants, particularly in Europe, have struggled with expanding beyond national borders, due to restrictive taxes and fees; initiatives within the European Union may potentially loosen these restrictions.

- Mobile OS fragmentation: while most merchants are deploying mobile Website solutions, some of the greatest success has come from mobile apps, particularly for the iPhone. eBay, for example, estimates that 60% of its record-breaking 2009 m-commerce revenues came from the iPhone/iTouch apps; the dilemma for merchants and mobile online shopping solutions providers is the fragmentation of mobile OS for the smartphone market. If merchants want to significantly expand their market beyond iPhone users, they may have to develop different apps for Android, BlackBerry, Symbian, and other mobile OS, which can be cost-prohibitive. (Beccue & Strother, 2010)

In their researches (Forrester Inc., 2011) forecasts that mobile commerce in US will grow till the value of 31 million dollars in 2016; the starting point of this forecast is the annual growth of 39% from 2011 on, and in 2016 it is expected to quantify the m-commerce at the 7% of the total eCommerce sales.
Despite the positive expectancy that more and more consumers will buy their product of different categories with mobile channel, the investment taken by merchant is not so high. They try to quantify the ROI of their investments and have various issues to manage: the type of partnerships, to develop or not an application, on what kind of device has to focus, how to evaluate the contribution of mobile on the overall business. The analysis made by Forrester highlight that the 24% of American use iPhone and the 21% of android users had used a shopping application in the last three months; this means a fast growing trend for the coming years but for now the mobile commerce represents only a small part of the total electronic commerce.
The 67% of customers prefer to use the smartphones only to search for information, then they buy in the physical shop. The 23% of clients purchase online and still use mobile channel to gain information and then go to the shop to check products. The 16% buy on mobile channel but first want to get in touch with the products in the offline stores; only the 9% are fully mobile involved searching and buying directly on their smartphones.

The 6% of smartphone owners already use a mobile shopping App in order to buy products but the 20% of the people involved in the research have expressed an interest in doing the same in coming months.

Many retailers have already developed both mobile App and mobile website of their businesses but the two things are slightly different. The Apps give to the customer a more complete and involved experience while the websites have more capillarity on the market.

A bad point of the research is that many users stated they don’t want to use the telephone to make payment, but anyway many companies are developing some innovative solutions such as the payments though NFC and SIM card.
Mobile commerce through mobile phones, excluding tablets and purchases made at a retail point of sale or a vending machine, will represent 6.8% of all online sales across Europe by 2017, reaching 19.25 billion euro equivalent to 23.49 billion dollars. It is possible to notice that the whole mobile commerce in Europe does not reach the level of the US market by itself. Impulse categories like books, music and DVDs and categories such as ticketing and auctions where immediacy and location are important will be the core mobile commerce growth categories.

![Figure 1.24 - Sales forecast of mobile sale channel [Forrester Inc.]](image)

Smartphone users are far more likely than other mobile device users to engage in mobile shopping via their phones, whether that is buying a product, locating a store or looking up a price while on the move, says the report, "EU Mobile Commerce Forecast: 2012 to 2017." The impact that mobile will have on the overall shopping experience will be much more significant as consumers increasingly turn to their phones to inform both online and offline purchases.

"Mobile buyers will mature from the early adopter profile today to become an increasingly mainstream audience; although this change will take time".

The average annual spend of each European mobile buyer will rise from 201 euro (244 dollars) in 2011 to 227 euro (275 dollars) in 2017; it is the volume of buyers (not each shopper’s individual spends) that will drive growth as shoppers focus their mobile buying primarily on lower-cost items.
As methods for mobile shopping improve, mobile purchasing will reach mainstream levels of adoption in 2017: the mobile buying population in Europe will rise from 7.6 million in 2011 to more than 79 million in 2017, with just more than 45% of all mobile users buying via their phones, the report says. (Forrester Inc., 2012)

In Italy mobile commerce grew in 2012 with triple digits (+142% compared to 2011), it worth nearly 180 million euro, that means the 2% of the overall online sales. iOS (iPhone) is the most used channel between mobile offer, when is important the timing of buying.

![Graph 1.11 - Mobile commerce in Italy: trends and division between product and services [adapted from Osservatorio eCommerce B2C]](image)

Also in Italy mobile commerce is facing a great development: the value of the sales to the end customer from the merchant that operates in Italy using a mobile website or an application go from 74 million euro of 2011 to 180 million euro in 2012; the 53% of the sales comes from products and the 47% from services.

The trend of adoption for mobile commerce is constantly positive even if is gradually slowing. Nowadays merchants that offer a mobile solution are almost 50% passing from 26% of April 2011 to 47% in October 2012; the majority offer both a mobile website and an App.
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Graph 1.12 - Adoption of mobile commerce by Italian merchants [adapted from Osservatorio eCommerce B2C]

The important thing of mobile commerce is the ability to drive the sales where is important for the customer to catch an occasion being online in a precise moment. For these reasons the biggest part of the sales (86%) come from Internet online sales campaigns, couponing, eBay auctions and ticketing for transportation. The sales, in those sectors that need a pondered decision or where the time is not important, are still limited; but there are two exceptions.

First, the sales in foreign countries, like Japan, where smartphones are widely used to make online sales; second, the use of smartphones inside the point of sales where devices are used to find prices and conditions of a product, seen in the shop, on the Web market.

Despite the diffusion of Android phones, mobile commerce still seems to be in 2012 a business for iOS that weight for three fourth of the total value of sales.

That’s why till today the Apple system offered a wider range of application and also because iPhone users are more accustomed to new technologies.
Nowadays the use of both eCommerce website and mobile channel is a widespread practice; in fact the half of the merchants had launched a mobile initiative (App or mobile site).

The strength of the smartphone is much more evident if we have also the offline channel; one third of the merchants that implemented a mobile initiative (multichannel players) oriented towards solution of mobile services (i.e. support to presale and aftersale services, while two thirds had developed a mobile commerce initiative that allows the order of product/service through the smartphone.

The benefits observed for the merchants of mobile commerce are various according to (Osservatorio eCommerce B2C, 2012):

- better visibility on product/services;
- better capacity to acquire new customers that have a need to be satisfied in mobility;
- possibility to involve the part of the customer that like the new technologies and that is likely high spending.

The majority of service scenarios deal with the exchange of products, services or information between businesses and consumers. B2C service scenarios can be further divided into categories corresponding to different m-commerce areas. In the following three of these categories are described:

- Financial Services: the user experiences financial and payment related services via mobile device; examples like Mobile Banking services provide public information (e.g. exchange rates, interest rates), as well as private information (checking account and credit card balances, transferring funds, and paying invoices); additionally Mobile Brokerage services offer buying and selling stock, managing portfolio etc.
- Mobile Information Provisioning: this includes services like Mobile Alert, Maps and Routing Direction, and Location Based Information; the information comes mainly either from users’ private data like calendar
or address book, or it is content made available by a mobile shop or a Content Service Provider.

- Mobile Advertising: the possibilities for mobile marketing are extended and a variety of new advertising methods can be envisaged, replacing gradually advertising messages sent via SMS; marketing campaigns like a digital coupons service can certainly be successful towards consumers, as the gathering and storage of digital coupons is easier than traditional paper based coupons.

Mobile Entertainment, Mobile Shopping, and Local Services are other important categories of B2C services. (Panis, et al., 2002)

### 1.2.2 Social commerce

Use of personal social networks to gather information is fundamental to purchasing behaviour. It is something so common in our daily routine that we usually do not even make a note of it. When we make a purchase from a retail store, we often speak beforehand to the shopkeeper about suitable products. When we need to purchase something we are unfamiliar with, we consult our friends and family for advice. When we purchase a popular new product, we have an urge to tell everyone we know about it. Although personal social networks are implicit in the offline shopping experience, their introduction to the online world is a relatively new phenomenon. ECommerce websites, such as Amazon and eBay, have successfully integrated product reviews, recommendations, search and product comparison, but they have been much slower at adopting social networking features as a part of customer experience. (Guo, Wang, & Leskovec, 2011)

A report by eMarketer lays out the numbers for social networking growth over the next few years. In 2012, there will be 1.43 billion social network users, a nearly 20% increase over 2011. One out of every five people worldwide will use a social network this year; one in every four will do so in 2014.
Defining users as those who visit a social network at least once a month, 63.2% of the world’s Internet audience will use social networks. This number is projected to rise to 67.6% in 2013 and then to 70.7% in 2014. (Williamson, 2012)

Graph 1.13 - Social network penetration 2011-2014 [eMarketer]

In the world of social networks the actors are many, but the most used is absolutely Facebook with around 700 million active users followed by Google+, YouTube and Twitter. (Global Web Index, 2012)

Graph 1.14 - Top 25 services by active users [GWI]
Social commerce can be briefly described as commerce activities mediated by social media. In social commerce, people do commerce or intentionally explore commerce opportunities by participating and/or engaging in a collaborative online environment.

The distinction between social shopping and social commerce is that, while social shopping connects customers, social commerce connects sellers. The roles played by consumers vary across websites or platforms and can range from generating content (e.g. product reviews and recommendations, known as “consumer-generated media,” on websites like Epinions.com, ThisNext.com, and Yelp.com) to being sellers and curators of online stores (e.g. eBay MyWorld/Neighborhoods, Squidoo.com, and Zlio.com). (Stephen & Toubia, 2010)

There are two major configurations of Social Commerce websites. First, social networking websites can add commercial features that allow for advertisements and transactions. For instance, Facebook, LinkedIn, and several other social networking Websites open their application programming interfaces to allow commercial activities to be easily conducted among members. Second, traditional eCommerce Websites such as Amazon.com can add social networking capabilities to take advantage of the power of social networking, allowing B2C Websites to better understand and serve their customers. There are many success stories of the application of Social commerce, mostly by large retailers (e.g. Coca-Cola, McDonald’s, Starbucks, and Dell) and service providers (e.g. banks and airlines). (Liang & Turban, 2011)

Based on the literature review, several expected and desirable technological features and tools are identified to support business strategies, people engagement and interaction, information production and sharing in social commerce.
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Expected Features

- Because they are considered the next generation of ecommerce, social commerce websites are expected to inherit some ecommerce functions which are listed, but not exhaustively described in Figure 1.25.

<table>
<thead>
<tr>
<th>Category</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E-commerce functions</strong></td>
<td>shopping cart/bag, checkout/payment, product visualization (images), product price, shipping</td>
</tr>
<tr>
<td><strong>Social Channels</strong></td>
<td>chats, fora, groups/communities, friends' lists, user's blogs, website blog, user's profile, wiki platform</td>
</tr>
<tr>
<td><strong>Content to Socialize</strong></td>
<td>emoticons, favorites, images (buyers' choice), open comments, wish lists, podcast/videos, rankings, ratings, tags, tag clouds, polls</td>
</tr>
<tr>
<td><strong>Social Networks</strong></td>
<td>Bebo, Delicious, Digg In, Facebook, Foursquare, Hi5, Myspace, Second Life, Stumble, Twitter</td>
</tr>
<tr>
<td><strong>Organizers/Mgmt Tools</strong></td>
<td>calendars, geolocators, price comparison, RSS (syndication), to-do lists, shoplists, price alerts</td>
</tr>
<tr>
<td><strong>Mobile</strong></td>
<td>Site mobile version, mobile apps</td>
</tr>
<tr>
<td><strong>Augmented Reality</strong></td>
<td>3D bar codes, avatars (shopping assistants), avatars (user), virtual reality tools (fitting rooms, shopping visit)</td>
</tr>
</tbody>
</table>

Figure 1.25 - Expected and desired features of social commerce [Curty & Zang]

- Social channels correspond to the endogenous spaces which are provided by websites for users to interact with each other and to establish a trust network. Also, it can be an alternative for retailers to take care of their own consumer data warehouse and can allow them to preserve an internal shopping environment, without directly involving third parties.

- User Generated Contents produced by social commerce websites are considered a critical element in social commerce.
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Desired Features

- Social networks represent the external social structures with which websites can bridge connections and enhance consumers’ shopping experiences. It assumes a broad meaning which includes virtual communities and bookmark-sharing services within communities or by groups’ members. Also, this is a desired element to achieve social media monetization strategies (Marsden, 2010). It might be argued that this is also an expected feature; however, that classification assumes that an internal social channel would be sufficient to build the collective ties/nodes for a social shopping activity.

- Organizers/Management Tools are desired elements to enhance a shopping experience. They can help consumers plan their research and buying activities, be alert to sales and best deals, and receive updated information according to their interests and profiles.

- The sophistication and pricing reduction of mobile devices/technologies (smartphones and personal digital assistants PDAs) promote a revolution in Web access behaviour. The pocket-size computing is been a strong competitor of the desktop generation. Thus, this popularization is an important indicator for social websites to be aware of and, to facilitate the shopping experience, to provide appropriate Web interfaces and applications for.

- Augmented reality functions blend the real world and computer generated data/content. Liu et al. (2005), Ye et al. (2005) and, Shen; Khoury & Shirmohammadi (2007) state that virtual reality (VR) and artificial intelligence (AI) help promote more realistic communication and interaction with products through more human-like interactive interfaces, which would be a desirable feature. (Curty & Zhang, 2011)

A 2010 survey by Booz & Company about consumers who spend at least one hour a month on social networking sites and who have bought at least one product online in the last year provides some insight. 27% of respondents said they would be willing to purchase physical goods through social
networking sites. Moreover, the 10% said their buying through social networking sites will be incremental to other buying they do; they will end up buying more physical goods overall. (The 73% who said they would not purchase goods through social networking sites largely cited concerns related to security and privacy, two areas that many big social networking sites are already working to improve.)

By 2015, the dollar volume of goods sold through social media should raise six fold, to 30 billion from 5 billion of 2011, according to Booz & Company estimates (Booz&Co, 2011)

Companies see opportunities to use social commerce at every moment along the path to purchase (awareness, consideration, conversion, and loyalty and service) and also to measure the success of their efforts.

1. **Awareness**: most companies’ social commerce activities have focused on branding and user-generated content in support of existing marketing initiatives. Social media enables new environment for promoting broader brand and forums for new social/viral content (often user generated).
2. **Consideration:** many companies have already started efforts in the area of consideration, mainly in the form of applications that entice customers to leave the social network site and move to the companies’ own websites. Companies can and should do more in the consideration stage, principally in two areas: generating leads and generating new ideas. Leads can be enhanced significantly by developing new mechanisms for targeting, data gathering, and motivating potential customers. Social media enables additional ways to drive traffic to own site, creation of microsites, apps to engage potential customers or proactive ones that like product innovations.

3. **Conversion:** this is where social commerce will have its biggest impact providing unique buying propositions for customers and new touch points for companies. Some examples of new type of propositions are Group buying and social shopping. Social commerce provides new mechanism for target new clients creating a new eCommerce channel.

4. **Loyalty and Service:** after a sale, companies want to build loyalty and give customers a chance to advocate on behalf of the brand. Social commerce introduces the possibility of multiple new touch points after a purchase. These touch points can have many benefits, including reducing churn.

5. **Measurement:** social commerce will marry multiple types of data to form socio graphic data that tracks not only what individuals buy but what their friends buy. Socio graphic data is collected in real time as customers browse, recommend, buy, and rate products. This gives companies the chance to influence behaviour along the entire purchase path. (Booz&Co, 2011)

Analysing the phenomenon from the user perspective, we can find some important figures from the research of (Stephen & Toubia, 2010) that call the social commerce user-side “social shopping”.

1. **Common interests:** the group choices and decisions are driven by only few people, which are pioneers or ancient members. The important
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factor is the sharing of a common interest that helps people making the choices.

2. *Impact of social groups on buying decisions*: the role of the groups is very important when we have to make decisions. All the decisions are influenced by the social environment doesn’t matter if the people are known or not. Social networks reflect the user identity so they influence relationships and decision. (Kelly, 2008)

3. *Participation and involvement*: social commerce could be intended as a moment when people play an active role in promoting a product or service. This could be an opinion of a feedback or a promotion made thanks to “like” or “share” on a social platform.

4. *Benefits*: through social networks customers gain more trust and have more transparency with merchants. There is also more accessibility to the websites reducing the costs for the clients

5. *Support in the buying process*: social commerce is now present in all the phases of the process. At the beginning the social channel is used to influence the buying behaviour of the potential customer. In the last phases is used to help the word of mouth and the repurchase. In the selection phase is very common to see special offer or specific information on product only for those customers that use social networks.

**F-commerce**

F-commerce started in 2009 with 1-800-FLOWERS setting up the first fan store. Others followed soon: musicians, film and TV shows, celebrities, retailers and brands. Initially, the focus was selling products with eCommerce apps for Facebook pages, but, since that time an evolution has occurred to include a full ecosystem of selling solutions that include the following:
1. LITERATURE REVIEW

- ECommerce apps for Facebook pages: transactions are conducted without leaving Facebook; examples of brands include ASOS, JP Penney, GNC and others

- Facebook Credits: Facebook's own currency used for purchases within the social network for virtual goods, digital products.

There are many way to sell on Facebook:

- Storefront apps for Facebook pages: product showcase apps linked through to stores
- Facebook apps for eCommerce sites: toolset designed to allow businesses to simplify, personalize and socialize both the FB fan-store and retailer's eCommerce site to enhance customer experience; these include Facebook Social Plugins, authentication mechanisms, API and Open Graph;
- Facebook Check-in Deals: mobile, location-based advertising designed to drive retail store footfall;
- Facebook Advertising: display ads designed to drive traffic to eCommerce sites, footfall to stores or retailer's fan page. (Chaney, 2012)
1.3 Sport eCommerce

With the improvement of people's living standards, pursuing fitness and longevity, enjoying sports concept tours and entertainment are playing an important part in sports purchasing power. With the development of eCommerce and network, many sport stores have set up their own shopping websites, more and more customers purchase sports products online. But the application of these websites is difficult to attract customers' initiative participation. (Luo & Sun, 2010)

Sport electronic business refers to the physical production and a series of electronic trading activities such as: production management, sport products marketing, electronic payment, logistic management and customer management. The platform is based on information technology and Internet system as the basis. (Ji, 2012)

Synchronization effects generated by the Internet on the sport industry have become a major commercial power, said Brenda G. Pitts, a sport marketer. It creates a timely manner to exchange and develop sport trading. As one of the new products and new branches in sport industry, it is added to the sport industry, which is known as the e-sport business. eCommerce can help sport enterprises to open international markets breaking the boundaries of space. The product created by sports enterprises via Internet is closely linked with customers, manufacturers, suppliers and vendors to complete the entire information flow, logistics and capital flow operation. Because the Internet is global in nature, companies that are engaged in sports products can timely access to the trade price information, supply and demand information, as well as the production material information, in international markets. Its direct impact is that they can rapidly turn around the business enterprise decision making and adjust the development direction and strategies, integrate various resources efficiently. Sports enterprises will also have access to high profits and more market opportunities for development. Meanwhile the strengths and weaknesses of business are also expected to be
doubly enlarged and the large-scale production and management will focus on the advantageous enterprises. eCommerce can promote sports enterprises and consumer to communicate directly, for example though a well-developed system of customer relationship management. Sport enterprises are able to track, query and maintain client and business relationships anytime, increasing satisfaction. It is possible to create tailor-made services or products. The use of eCommerce platforms can create a virtual community and increase customer loyalty at the same time according to feedback information to adjust business programs. (Yin, Wang, & Wang, 2010)

Yin, Wang and Wang in their studies found three main problems that affect the sport eCommerce industry:

- Lacking of innovation: online sport trading volume is still low and often the income is insufficient to maintain the daily operation. Internet companies need to reconsider their position and return to track of “profit centre”.
- Low level of information: enterprises’ business processes and information of management process is a necessary prerequisite for enterprise to develop eCommerce
- Shortage of high-level talent: at present an acute shortage talent with innovative thinking of the theory of eCommerce, planning and management is a present problem for developing sport eCommerce; the lacking of human resources in this field leads stagnation in the industry, especially in China.

Many companies, sport clubs but also many famous athletes are moving their website from a pure information function to a more complex asset. Besides the classical information activity of the website are added activity in the field of eCommerce of clothes and merchandising, the sales of tickets for events and also the organization of online communities like forums, chats and others. In addition in the last years is growing the function of online live streaming of sport events.
We have different application of sports commerce on the Internet (Cherubini, 2002):

- Websites of athletes and sport people
- Websites of sport clubs
- Websites of sport associations and networks
- Websites for sport experience and equipment
- Websites of sport utility and infrastructures
- Websites of sport brands
- General web portals about sport and sport newspapers

Sport eCommerce entails the external information technology processes of a sport organization including the marketing and sales functions. More specifically, sport eCommerce involves the buying and selling of sport products and services through the World Wide Web (WWW) and the Internet. It also involves Intranet functions such as electronic funds transfers (EFT) and smart cards (card with a chip that holds customer information and money available), and fan-loyalty reward programs. Sport eCommerce also includes the internal function of the organization that facilitates these external exchanges. eCommerce is a function of e-business, but is the area where most sport marketers work because the functions are outward facing and involves interaction between the sport consumer and the sport organization. From an integration standpoint, eCommerce specifically coordinates with the vertical integration function of e-business. eCommerce also integrates with traditional sport business operations in two additional ways. First, there is cross-business integration where the sport organization must coordinate with the information technologies of suppliers, sport consumers (personal websites), and web-based marketplaces (such as eBay). Second, there is technology integration that involves modifying the traditional processes of order handling, purchasing, and customer services with the specific needs of the sport consumers and the unique abilities of the sport organization in mind. The evolution of sport eCommerce has introduced two significant concepts into the sport marketing vocabulary.
Individualization takes personalizing and customizing sport products and services to another level by allowing for personalized communications between the sport consumer and the company (usually via a website). The sport consumer can also customize the interface with the sport organization to suit their needs. The other main concept that has evolved as a result of sport eCommerce is interactivity. This is the ability for the sport consumer to have more two-way communication with sport organizations and sport marketers. In traditional marketing, most marketing communication is one way through television, radio, and print advertising. There are also sport marketing communication efforts that are one-to-one, where methods such as direct mail and telemarketing created one-time, one-way contact. In interactive marketing communications, these efforts can be in real time (instant feedback via email) or asynchronous (discussion and message boards). This allows the customer to be in control of the communication, and increases the likelihood of a positive interaction between the sport organization and the consumer.

The concepts of sport e-business and sport eCommerce involve the various interactions between businesses and consumers through digital communications. In the traditional communication process, the sender uses a channel to send a message to a receiver, who then provides a response and feedback. In the digital communication process, the type of interaction is directly related to who the sender is and who the receiver is. For sport e-business and eCommerce, there are four categories: B2B, B2C, C2B, and C2C.

Business-to-business (B2B) refers to the transactions, collaborations, and business interactions that occur between two organizations. For sport organizations, this can include a multitude of functions including management of inventory, channels, and sales, as well as service and support operations. In the sporting goods industry, Sport Supply Group (www.sportsupplygroup.com) is one of the leading B2B eCommerce suppliers of equipment for institutions and the youth sports marketplace. Sport Supply Group acts as an intermediary in online sales of sports
equipment from selected manufacturers to primary and secondary schools, colleges and universities, camps, youth organizations, and governmental agencies.

Business-to-consumer (B2C) focuses on the transactions between businesses and consumers. For the sport organization, these transactions are usually plentiful, but smaller in scope than those transacted through B2B. Ticketmaster (www.ticketmaster.com) is one of the most popular B2C websites, offering to the consumer tickets to sport events, concerts, shows, and other leisure activities across the United States and the world.

Consumer-to-business (C2B) is where the consumer initiates the transaction process by soliciting organizations to compete for the individual’s business. While this is not widely used directly in sport business, an example of C2B would be www.priceline.com. Priceline.com is a travel service that allows the consumer to name their own price, and airlines, hotels, travel packages, and rental car agencies will respond to the consumer and potentially meet their demand.

Consumer-to-consumer (C2C) involves transactions between customers. Many of these transactions will involve an online third-party business, such as eBay (www.ebay.com). One customer can sell directly to another customer an assortment items ranging from sport memorabilia to event tickets. (Schwarz & Hunter, 2012)

Competition moves beyond industry boundaries as a result of products and services being offered virtually. As a result, sport organizations can create value, based on the perspectives of a wider range of sport consumers. Second, competition is not one-on-one in sport e-business and eCommerce; it is team-on-team. There is significant reliance on additional complementary products (computers, servers, operating systems software, etc.). Therefore, sport marketing professionals and the management of the sport organization must evaluate those collaborators in business in order to determine the feasibility of accomplishing specified goals and compete in the marketplace. Finally,
competition in sport e-business and eCommerce changes rapidly due to the speed in which changes in trends, events, and opportunities can be addressed. This requires the sport marketing professional to continually assess the environment and effectively react with speed and efficiency. Involvement in sport e-business and eCommerce also creates a need for sport organizations to reorganize their value chain; those activities that add value directly to the consumer while adding indirect value through the support of other organizational operations. There is more direct contact between sport consumers and sport organizations through e-business and eCommerce as a result of the increased amount of information that can be made available at lower costs through e-value chains. (Schwarz & Hunter, 2012)

Sport Electronic business is encompassing term that covers the internal information technology process of sport organization including human resource, produce development and risk management.

Parkes and colleagues have divided the sport industry in to three parts, which involves the sport revenue, sport production and sport improvement in sport industry. Eren in Australia divided the sport production in to four sections:

1. Professional service such as athletic and the place to make body well perform.
2. Goods and wares such as shirt and shoes.
3. E-rent such as manager and plan market.
4. Media such as radio, TV and magazine.

As far as the exchange of sport products and services via e-business and ecommerce, the main method is through sport company websites. This allows for interaction between the buyer and the sport company 24 hours a day, 7 days a week, 365 days a year, regardless of the location of the company. In addition, there are three other types of websites that are utilized for the exchange of sport products and services. Brokering sites act as an intermediary between one sport business wanting a sport product or service
and another sport business seeking to provide such a product. Infomediaries publish trade and industry standards about an industry for those who operate in that industry. An example for the sport industry is F_W Publishing (www.fwpublishing.com), who publishes special interest magazines and books for a variety of consumer enthusiast categories, including sport collectibles. Some of their publications include “Sports Collectors Digest” and “Card Trade”. E-procurement, also known as product supply and procurement exchanges, is when the purchasing function is often outsourced to a third party. That company acts as an agent to shop for supplies, request proposals, and bid on making purchases on behalf of their client. It is also used for storage of items occasionally, as the e-business rarely pays for that kind of storage space. An example of an e-procurement site would be www.bidnet.com, where buyers can streamline their purchasing processes and vendors are connected with the ability to bid on government contracts. Specifically, their e-procurement department was established to create and manage website so that purchasing agencies could register their vendors and deliver bid information directly to them. (Schwarz & Hunter, 2012)

Electronic commerce will still deliver sizable benefits in the form of improved customer and supplier relationships and a reduction in the costs of doing professional sports event promotion.

The descriptive statistics of (Chen, 2008) analysis indicated that most Taiwanese professional sports event promotion organizations’ owners/managers agree or strong agree that the application of eCommerce could have important impact on their organizational performances.

An organization that cannot utilize eCommerce both as productivity tool and as a marketing tool may have a tremendous disadvantage compared to its competitors. Barriers to the adoption of the Internet to professional sports event promotions were found to be: lack of security, lack of curiosity, lack of confidence, and lack of knowledge, and companies in use the Web have reached an acceptance level of web information utilization in their conduct
professional sports event promotion. Managers were satisfied with the accessibility, productivity, and efficiency of the Web in their professional sports event promotions. Professional sports event promotion activities that via the Internet having the following benefits:

- Timeliness: your website is accessible round the clock. Email queries can be handled more expeditiously and completely than is often possible by mail or phone.
- Reduced marketing costs: online catalogues are cheaper to produce and maintain that paper catalogues.
- Better targeting: Internet communities are self-selecting; people with particular interests tend to visit particular places in Cyberspace; customers find you, rather than vice versa.
- Greater market reach: distance is no object; sending information or exchanging messages costs virtually the same as someone locally; you don't need to pay expensive courier bills.
- Reduced communications costs: with electronic networking it cost virtually the same to send a message to 100 people as to one.
- Improved after sales service: by providing online support, customers can serve themselves for many of the common post-sales information. (Chen, 2008)

Sports and fitness is an excellent segment for eCommerce. A large and a fast growing sports industry, lack of organized retail has made way for sports and fitness products in eCommerce," says Prashant Tandon, managing director and co-founder of Healthkart, an online health and nutrition products retailer based in Gurgaon.

A sports outlet offering everything from shoes to apparels and accessories is very hard to find," says Manu Kumar Jain, managing director of Jabong.com. "It is still an unorganised market and there is a huge gap. eCommerce gives the consumer the advantage of being able to compare all brands available."
According to the National Sporting Goods Association (NSGA), sales of sporting goods through Internet websites in the United States (not including bicycles) totalled $26 billion in 2010 and $26.4 billion in 2011, up from $24.6 billion in 2009.

We can do a further analysis of the electronic commerce sport sector, and specifically regarding the online booking of services, considering the five forces that shape the strategy of a company that wants to make business in there. (Porter, 1979)

- Threat of new entrants: this kind of market doesn’t require a lot of capital and, in general, costs to be sustained. It is growing very fast so it is possible that new competitors can enter in the industry, in this sense it’s important to develop a brand image and customer loyalty. Another kind of possible entrants could be platforms that already offer booking services in sectors that are different from sport. They have the infrastructure that can make them able to offer a high level service, so they don’t need a big initial investment. Moreover they have a customer base already established, this people can do bookings also for sports. On the contrary a barrier is the fact that is not simple for a single sport centre to coordinate bookings derived from different platforms, so can happen that some reservations can overlap due to a difficulty in the synchronization with the centre calendar. So if a centre is subscribed to a service is difficult that it will change to another one.

- Bargaining power of suppliers: this is the most important force. A key point for the success of an online booking service and in particular for sport facilities, is to have well established relationships with the facilities owners, which can be considered the suppliers of the business. For them is a good opportunity to be present on a booking platform in order to gain more visibility and clients in order to saturate the available capacity of the infrastructures. Meanwhile, for the booking website is crucial to develop a database that is as much wider as possible in order to give the possibility to benefit the service to many
people. In order to reach the best situation for both the actors, the idea solution in to establish partnerships and agreements.

- Bargaining power of customers: they have not much power because the service offered is usually free and the offer is not so huge. Nonetheless is important to engage the customer and propose a good service because, obviously, without them the service is useless. The way to maintain customers is to create online communities and networks because this is one of the most important aspects of sports philosophy. The real bargaining power of customer can be considered more indirect. Online booking tools and services works good if they have a lot of people subscribed that use frequently the services, so the word of mouth, reviews and comments are very important in order to enlarge the customer base.

- Threat of substitute products: we can consider as a substitute product the physical booking by going to the sport facility or gym. Off course the proposition made by eCommerce is superior in term of convenience and costs. Also the management of tournaments as well as games is more comfortable if it is done online, so the offline channel that is always present ( the physical place where you go to play) but doesn’t offer the same qualities of the online.

- Intensity of internal rivalry: Actually the competition on the market is very low, only few players are on the market. Another positive point in that the completion can only come from the online sector, so offline players are not considered unless they will not undertake an online proposal.
Figure 1.26 - Personal elaboration of Porter's 5 forces regarding the sport sector
1.4 eCommerce and services: the support to online booking

To reap the full benefits of online booking, companies require a tailored strategy and thorough implementation plan. Online booking tools (OBTs) are used increasingly by companies wishing to minimize costs while providing convenient booking features. Many factors influence online adoption, from the macro-economic context to organizational culture, but high adoption rates are possible, particularly when a comprehensive implementation strategy is implemented.

When implemented in the right way, corporate online booking tools enable companies to generate significant savings:

- **Lower transaction costs:** simple, touch less online transactions generally cost half as much to process as manual offline bookings, while the cost of assisted bookings comes about halfway between online and offline transactions. In some cases where assistance is required more than once, however, the cost may be higher than for offline bookings if per-touch charges are applied, given that companies must also pay an OBT fee. Travel managers rank booking cost optimization top of the list of factors driving online adoption, followed by service features that enhance the traveller experience (24/7 availability and ease of booking).

- **Lower average ticket price (ATP):** previous in-depth CWT research indicates that the ticket price is on average 5% lower when people use online booking tools instead of contacting a counsellor, and savings can sometimes reach 15% from combined savings on fares and fees.

- **Efficient booking processes:** OBTs can save time when booking through standardized, well-designed processes, and can add convenience by being available 24/7 and offering relevant information (e.g., on travel options that comply with the travel policy).
Given the benefits, it is hardly surprising that more and more bookings are being made online, as noted by 70% of travel managers and 53% of travellers in companies that implement OBTs.

There are wide variations in online usage levels between different countries and industries, however. For example, Australia’s online usage is nearly triple Spain’s (44% vs. 14%). Moreover, according to a CWT analysis of 70 million transactions, high-tech companies have been faster to adopt online tools than those operating in energy and utilities, chemicals or the public sector. For example, usage reaches 61% in electronics companies, compared to 17% in the public sector and 34% on average across all industries.

Source: CWT Travel Management Institute
Based on CWT transaction data

Graph 1.16 - Online booking tools usage by country [CWT]
Graph 1.17 - Online usage of online booking tools by industry [CWT]

These variations are partly explained by external factors such as Internet usage and the economic context, as well as corporate culture:

- **Internet usage**: the extent to which a country's population goes online impacts people's readiness to use online tools, as well as the maturity of the service offering. In this way, the growth in online booking is part of a wider online trend in all areas of business and people's private lives.
- **Economic context**: companies tend to accelerate their online usage plans when under greater pressure to reduce costs, as has been the case over the past few years with due to the economic downturn.
- **Corporate culture**: in addition to being influenced by external factors such as the industry context, companies with the highest adoption rates tend to have one or more of the following internal attributes: Adaptable to change self-enabling (a strong do-it-yourself culture, where most employees do not have administrative assistants), process-focused (a methodology to improve process performance that is systematically measured and managed), e-culture (employees are technology driven...
and go online for many administrative tasks, such as expense reporting), Mandate-based (decision-making is generally a top-down process). (Carlson Wagonlit Travel Management Institute, 2010)

E-payment is a subset of an eCommerce transaction to include electronic payment for buying and selling goods or services offered through the Internet. (Junxuan, 2010)

With the growth of business on Internet, new electronic payment methods are evolving. As the new payment methods are evolving quite rapidly, it is becoming highly difficult for the end user to manage his payment instruments.

**E-wallet**

A number of electronic commerce applications allow end-users to purchase goods and services using electronic wallets. The importance of Internet wallets is growing as buyers shift their purchases to the Internet. Wallets benefit each participant of an online transaction. The core function is to enable consumers (business or individual) to pay online more conveniently and accurately than is otherwise possible. This is done by storing the user’s payment instruments (typically e-cheque, credit or debit card, addresses, etc.) securely within the wallet for easy use. In addition, they can also provide transaction management for users.

**E-cheque**

A cheque is a signed paper document that orders the signer's bank to pay an amount of money to a person specified in the cheque or bearer from the signer’s account on or after a specified date. Cheques have the advantage that payers (drawer) and payees can be individuals, small businesses, brokerages, corporations, governments or almost any other type of organization. They pass directly from the payer to the payee, so that the timing and the purpose of the payment are clear to the payee. While cheques are usually very simple,
business cheques can require multiple signatures and can be accompanied by lists of invoices being paid. The payee can deposit a cheque in an account of his choice or cash it. Banks operate extensive facilities to accept cheques for deposit process them internally and clear and settle between banks. The electronic cheque, or e-cheque, is based on the idea that electronic documents can be substituted for paper and public key cryptographic signatures can be substituted for handwritten signatures. Therefore, the e-cheque can replace paper cheques without the need to create a new payment instrument, along with the commercial practice changes that a new payment instrument would imply. Instead, the e-cheque is designed to fit into current cheque practices and systems with minimum impact on payers, payees, banks and the financial system. The payer writes an e-cheque by structuring an electronic document with the information legally required to be in a cheque and cryptographically signs it. The payee receives the e-cheque, verifies the payer's signature, writes out a deposit, and signs the deposit. The payee's bank verifies the payer's and payee's signatures, credits the payee's account and forwards the cheque for clearing and settlement. This credit will not be a clear credit; it will be a float or temporary credit, to be confirmed only after it has been cleared by the paying bank, in the settlement process. The advantage of e-cheque is that cryptographic signatures on every e-cheque can be verified at all points, while in paper cheques handwritten signatures are rarely verified.

The electronic cheque is designed to perform the payment and other financial functions of paper cheques, by using cryptographic signatures and secure messaging over the Internet. The electronic cheque system is designed with message integrity, authentication and non-repudiation properties sufficient to prevent fraud against the banks and their customers. It is compatible with either interactive web transactions or with electronic mail. Since the electronic cheque does not depend on real-time interactions or on third party authorizations, electronic cheques are better able to survive outages of network links and computing nodes. The result is a highly efficient electronic
payments system, with a technology base that is extensible to a variety of financial instruments and other high-integrity document processing applications needed by the financial industry.

**E-billing**

With ever increasing spread of Internet, bill presentment and payment is becoming a new type of service area for periodic billers like Telephone Companies, Electricity etc. Internet based bill presentment and payment system converts billing centres from cost centres to revenue centres and for customers (payer) the system is a personalized service. (Murthy, et al., 2001) (Meng & Xiong, 2004.) developed three models for online payment:

**Electronic Credit Card Payment Model**

In electronic credit card payment model the payer uses electronic credit card as payment tool to pay the invoice or bill. Electronic credit card is a replacer of credit card in the real world. It works just like credit card and has the same legal treatment as credit card. In the following is described the electronic credit card payment model. First the payer must have the credit card, when the time comes to pay the invoice, the payer creates payment instruction information that include credit card information such as the payee’s name, the amount, and the expire date, password, card brand and the card number information. The signed payment instruction information and invoice is sent to the payee by email or Web. The payee verifies the payer’s signature on the payment instruction information and invoice, detaches the invoice information. Then the payee signs and sends the payment instruction information to payee’s bank for deposit and subsequent clearing. Both the payee’s bank and payer's bank verify all signatures on the payment instruction information. The paying bank verifies that this transmission of the payment instruction information is right, that the payer’s certificate and account are currently valid, and transfer the amount to the payer’s demand
deposit account that is payee’ account. Finally, the payer receives a line item on his statement.

**Electronic Cash Payment Model**

In electronic cash payment model people use electronic cash as payment tool to pay the bill. Electronic cash is replacer of cash in the world. It works just like cash and has the same legal treatment as cash. In the following we describe the electronic cash payment model. First the payer must purchase the electronic cash from the issuer bank of electronic cash. The electronic cash is data file. When the payer has to pay the invoice, uses the electronic cash to pay the invoice. The electronic cash and invoice are sent to the payee by email or Web. The payee verifies the payer’s signature on invoice. Then the payee sends the electronic cash to payee’s bank for deposit and subsequent clearing. Both the payee’s bank and payer’s bank verify the electronic cash. If it is right, the payer’s bank transfer the amount that is same to the amount of electronic cash to the payer’s demand deposit account that is payee’ account.

**Electronic Check Payment Model**

In electronic check payment model the payer use electronic check as payment tool to pay the bill. Electronic cash is replacer of paper check. It works just like paper check and has the same legal treatment as paper check in the following we describe the electronic cash payment model. The payer, firstly, creates an electronic check. The electronic check includes paper check information such as the payee’s name, the amount, and the date and the account information. This provides the payee with the complete information needed to correctly post the payment. The signed electronic check and invoice is sent to the payee by email or Web. The payee verifies the payer’s signature on the electronic check and invoice, detaches the invoice information, and sends the payment to accounts receivable. The payee endorses the electronic check and signs an electronic deposit slip to deposit a
batch of electronic checks. The endorsed electronic check is forwarded to the payee’s bank for deposit and subsequent clearing. Both the payee’s bank and payer’s bank verify all signatures on the electronic check and endorsement. The payee’s bank verifies that this transmission of the electronic check is not a duplicate, that the payer’s certificate and account are currently valid and sends the electronic check to the payer’s demand deposit account. Finally, the payer receives a line item on his statement.

Nowadays, the development and adoption of mobile technologies have made new services and related commerce more and more available. Some of the factors that contributed to this development are the tremendous development of the Internet and related technologies, the understanding and exploitation of the business potentials that rest behind this development, the boost of eCommerce frameworks and technologies, and the impressive growth of wireless mobile networks. Besides the general requirements for m-commerce, location-based services are subject to a set of specific requirements. We classify them in the following requirements categories: user (functional), usability, reliability, privacy, location infrastructure and, interoperability. These requirements cover some basic issues in location-based services. (Tsalgatidou, Veijalainen, Markkula, Katasonov, & Hadjiefhymiades, 2003)
2. METHODOLOGY

2.1 Objective of the analysis

Our research is focused on the eCommerce sector, mainly on the analysis of the Italian market for mobile applications designed to sell sport experiences; the processes held in high consideration are organization, reservation and on-line payment, by checking their presence, in the form of built-in features, in the applications.

Were considered only free applications for the following reasons:

- Many priced apps are identical to the free ones, just changed the extension/customization of some features.
- Do not make sense to ask the users to pay for a service that could be done easily with traditional methods (although it takes a longer time).
- For each priced application, the great variety and number of applications available allows you to access/use the same contents even using a free version.
2.2 Logical process

The first step of the methodology was the search of the websites of the most known companies all over the world and Italian offering the possibility to organize, reserve and in some cases pay to make use of sport experiences and not, in Italy.

Figure 2.2 - Personal elaboration of the phase B
2. METHODOLOGY

At the same time was analysed their use of social networks and the existence of their applications for the mobile market.

Facebook has been considered separately from other social networks and analysed in more detail because of its wider diffusion in the world (as reported in Chapter 1); Facebook also has an additional model of business (f-Commerce) and several possible configurations depending on the user's needs, be it a business or a private individual, which will be analysed in Chapter 2.4.2.

![Diagram of the methodology]

**Figure 2.3 - Personal elaboration of the phases C and D**

Subsequently were searched other free mobile applications, always within the sport experience range, taking away the ones having only news and the ones that have not a direct relation with activity execution; this phase has been developed through two parallel researches that analysed the
2. METHODOLOGY

applications found in the App Store and in the Google Play Store following the reasons that will be explain later in the analysis.

Considering the unified database, obtained by merging the lists of the two stores and eliminating the duplicates, an analysis was performed by dividing into three different points of view:

- Facebook approach: for each surveyed application, it was reported the approach to the social channel of Facebook considering how many and which of the available configurations have been adopted and what level of popularity among users each application has; the definition of "Tactical" and "Strategic" will be explained in Chapter 2.4.4 because that's where these approaches will be analysed in detail.

- Offer in the Italian market: analysis of the offer in the Italian market for Italian and foreign applications; consistently with the object of the research, the focus was on national applications and those offering foreign offers in the Italian market; in addition was made an analysis of the Italian applications also suitable for foreign markets assuming a possible future expansion.

- eCommerce degree of adoption: analysis of a selected sample in relation to the use of the functions linked to the areas of social network and eCommerce; was then analysed, using a chart, the ratio between the "Social approach" and the "eCommerce degree"; at the end was done a comparison between the results of the selected sample with only those applications, from the sample itself, intended for the Italian market.
2.3 Websites offering sport experiences

Starting from the found websites, have been identified their purposes and their multichannel approach considering the use of social networks and the presence of mobile applications; to facilitate the analysis, they were included in the model below:

<table>
<thead>
<tr>
<th>ID</th>
<th>NOME</th>
<th>COUPONING</th>
<th>MANAGING</th>
</tr>
</thead>
<tbody>
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<td>Groupon</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Groupalia</td>
<td>x</td>
<td></td>
</tr>
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<td>5</td>
<td>Cupupo</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Gilamoo</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Soonton</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Fubles</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>17</td>
<td>Sportilia</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>20</td>
<td>Prenotapartita</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>21</td>
<td>Easyfootball</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>24</td>
<td>Gokick.org</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Figure 2.4 - Personal elaboration of the framework used for the analysis

- Couponing: websites that allow to purchase various kinds of experiences or coupons for discounts.
- Managing: websites dedicated to the organization of sporting events by managing the search, the reservation system and the communication between the participants.

2.3.1 Multichannel approach

For all the websites found, was analysed their multichannel approach by investigating the possibility of simply sharing the news or even access the features of the site by logging in using the account of a social network; was also considered the presence of their applications in both stores of Apple and Google.
As regards the possibility to access the functionality of the site under the account of a Social Network, the only option taken into consideration was Facebook as appears to be the only type of account enabled for this purpose, in reference to the sample analysed.

<table>
<thead>
<tr>
<th>ID</th>
<th>NAME</th>
<th>CONNECT WITH FACEBOOK</th>
<th>FACEBOOK</th>
<th>TWITTER</th>
<th>OTHERS</th>
<th>APPLE</th>
<th>GOOGLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Groupon</td>
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<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Groupalia</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>Cupippo</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Glamoo</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>Scoontion</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>Fables</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>17</td>
<td>Sportilla</td>
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<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
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<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>21</td>
<td>Easyfootball</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>24</td>
<td>Gollu.org</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Figure 2.5 - Personal elaboration of the framework used for the analysis**

- Connect with Facebook: ability to access the functionality of the site through the account of the social network.
- Facebook, Twitter & Others: enabled platforms for direct editing of news and comments on the own profile; Facebook and Twitter are considered separately because of their greater global spread (as shown in Chapter 1), while for the others were given the aggregated data.
- Apple & Google: presence of website's mobile applications in the catalog of the two stores.
2.4 Mobile applications in the sport category

The research of mobile applications has been carried out in parallel on the App Store and on the Google Play Store in the "Sport" and "Fitness"; only these stores were chosen because their databases offer a huge number of applications and their operating systems are the most popular on mobile devices as discussed in Chapter 1.

2.4.1 Framework description

The found applications were divided into three main categories and classified according to the following scheme:

<table>
<thead>
<tr>
<th>ID</th>
<th>APP NAME</th>
<th>MARKET</th>
<th>SPECIFIC SPORT</th>
<th>SPORT FACILITY/CLUB</th>
<th>PURCHASING/MANAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stok.es</td>
<td>All</td>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>2</td>
<td>Mobile Fitness</td>
<td>All</td>
<td>Fitness</td>
<td>Fitness</td>
<td>Tickets purchasing</td>
</tr>
<tr>
<td>3</td>
<td>Evernote</td>
<td>IT</td>
<td>IT</td>
<td>IT</td>
<td>Managing sport activity</td>
</tr>
<tr>
<td>4</td>
<td>Clash Of Tennis</td>
<td>Spain</td>
<td>Tennis</td>
<td>Tennis</td>
<td>Sport facility</td>
</tr>
<tr>
<td>5</td>
<td>Hawkeye watch</td>
<td>Canada</td>
<td>Canada</td>
<td>Canada</td>
<td>Golf club</td>
</tr>
<tr>
<td>6</td>
<td>Zombie Run</td>
<td>Nether</td>
<td>Zombie Run</td>
<td>Zombie Run</td>
<td>Swimming</td>
</tr>
<tr>
<td>7</td>
<td>Mapmyrun</td>
<td>USA</td>
<td>USA</td>
<td>USA</td>
<td>Sport facility</td>
</tr>
<tr>
<td>8</td>
<td>Sport Training</td>
<td>Italy</td>
<td>Italy</td>
<td>Italy</td>
<td>Multi</td>
</tr>
<tr>
<td>9</td>
<td>SocialSport</td>
<td>Italy</td>
<td>Italy</td>
<td>Italy</td>
<td>Fishing</td>
</tr>
<tr>
<td>10</td>
<td>Golf Phone Tracker - Golf GPS</td>
<td>France</td>
<td>France</td>
<td>France</td>
<td>Golf</td>
</tr>
<tr>
<td>11</td>
<td>Golfino</td>
<td>USA</td>
<td>USA</td>
<td>USA</td>
<td>Find and reserve golf club</td>
</tr>
<tr>
<td>12</td>
<td>Multihit</td>
<td>Italy</td>
<td>Italy</td>
<td>Italy</td>
<td>Skiresort</td>
</tr>
<tr>
<td>13</td>
<td>Phenolocome</td>
<td>Canada</td>
<td>Canada</td>
<td>Canada</td>
<td>Find and reserve golf club</td>
</tr>
<tr>
<td>14</td>
<td>Sportlink</td>
<td>Italy</td>
<td>Italy</td>
<td>Italy</td>
<td>Managing sport activity</td>
</tr>
<tr>
<td>15</td>
<td>Urban active</td>
<td>Italy</td>
<td>Italy</td>
<td>Italy</td>
<td>Wellness facility/Spa pool</td>
</tr>
<tr>
<td>16</td>
<td>Public</td>
<td>Italy</td>
<td>Italy</td>
<td>Italy</td>
<td>Managing sport activity</td>
</tr>
<tr>
<td>17</td>
<td>Sportlink</td>
<td>Italy</td>
<td>Italy</td>
<td>Italy</td>
<td>Managing sport activity</td>
</tr>
</tbody>
</table>

![Figure 2.6 - Personal elaboration of the framework used for the analysis](image)

For each application have been reported the name, the target market (suitable for the international market if not specified), a brief description and its link in the store for easy retrieval at a later time.

- Specific sport: applications developed only for one sport, they have specific features to enhance the experience in that specific sport or developed for different sports with the aim to record the performances.
- Sport facility/club: applications that include information and services related to a specific facility or sport club.
2. METHODOLOGY

- Purchasing/managing: applications that allow to book and purchase online, through mobile device, sport experiences or allow the organization of sport events by putting in touch the participants and reserving the facilities required for their development.

For the cataloguing stage have also been reported the characteristics considered most important for the achievement of the analysis and divided into the five groups discussed below.

<table>
<thead>
<tr>
<th>ID</th>
<th>APP NAME</th>
<th>NEWS</th>
<th>SNC</th>
<th>SHARING</th>
<th>INVITATION</th>
<th>COMMUNITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Ski&amp;snow report</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Norsecise</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>Eventbrite</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>21</td>
<td>Gymmit</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>24</td>
<td>Ciudad de la raqueta</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>30</td>
<td>Hyde mountain golf app</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>35</td>
<td>Zwembraden</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>37</td>
<td>Maple zone</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>49</td>
<td>Sport a torino</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>54</td>
<td>Social fish network</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>67</td>
<td>Scubasport free</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>113</td>
<td>Golf Shot Tracker - Golf GPS</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>120</td>
<td>Ellipsport</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>137</td>
<td>Golfing</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>158</td>
<td>Mottolino livigno</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>199</td>
<td>Frenotaconome</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>215</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>247</td>
<td>Urban active</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>256</td>
<td>Fubles</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>258</td>
<td>Sportilia</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Figure 2.7 - Personal elaboration of the "News" group in the framework

The first group (News) only includes the presence of news related to the activities covered by each application, while the second (Social) includes the features of social networks (Facebook, Twitter, etc.) incorporated therein.

- News: updated information about the activity, the plant, new ideas, etc.
- Social Network Connection (SNC): built-in function that allows the connection to the profile of the various social networks directly from the application.
• Sharing: opportunity to post news, photos, videos, comments regarding the activity on your own profile on social networks.

• Invitation: possibility to invite your own contacts to join the activity through private messages or e-mail sent to their account.

• Community: functionality through which users can contact each other and share information, photos and videos of their experiences.

<table>
<thead>
<tr>
<th>ID</th>
<th>APP NAME</th>
<th>RESERVATION</th>
<th>PAYMENT</th>
<th>PRICE &amp; DISCOUNTS</th>
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</thead>
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<td>2</td>
<td>SkillsNow report</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Nexercize</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Eventbrite</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>21</td>
<td>Gymmit</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>24</td>
<td>Ciudad de la raqueta</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>30</td>
<td>Hyde mountain golf app</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>35</td>
<td>Zwembaden</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>37</td>
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<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>49</td>
<td>Sport a toriNo</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>54</td>
<td>Social fish network</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>67</td>
<td>Scubasport free</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
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<td>113</td>
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<td>No</td>
</tr>
<tr>
<td>120</td>
<td>Blipsport</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
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<td>137</td>
<td>Golfzing</td>
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<td>No</td>
<td>Yes</td>
</tr>
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<td>158</td>
<td>MottoliNo livigNo</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>199</td>
<td>Prenotaconme</td>
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<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>338</td>
<td>Sportlinkd</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>247</td>
<td>Urban active</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>256</td>
<td>Fubles</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>258</td>
<td>Sportilia</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Figure 2.8 - Personal elaboration of the "eCommerce" group in the framework

In the third group (eCommerce) are considered the characteristics related to eCommerce: reservation, payment and discounts.

• Reservation: possibility of booking, via the mobile application, the day or the time of the day in which carry out the activity, or a place for an experience or offer.

• Payment: ability to pay the activity or the offer directly through your own mobile device.
2. METHODOLOGY

- Price & discounts: presence of the offer’s price and opportunity to take advantage of discounts, special and exclusive offers addressed only to application’s users.

<table>
<thead>
<tr>
<th>ID</th>
<th>APP NAME</th>
<th>MAPS</th>
<th>GEOLOC</th>
<th>NAVIGATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Ski2Now report</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Nextcise</td>
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<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Eventbrite</td>
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<td>No</td>
<td>No</td>
</tr>
<tr>
<td>21</td>
<td>Gymmit</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>24</td>
<td>Ciudad de la raqueta</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>30</td>
<td>Hyde mountain golf app</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>35</td>
<td>Zwembaden</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>37</td>
<td>Maple zone</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>49</td>
<td>Sport a toriNo</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>54</td>
<td>Social fish network</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>67</td>
<td>Scubasport free</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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<td>103</td>
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<td>No</td>
</tr>
<tr>
<td>120</td>
<td>Blipsport</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>137</td>
<td>Golfzing</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>158</td>
<td>MottoliNo livigNo</td>
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<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>193</td>
<td>Prenotaconme</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>338</td>
<td>Sportlinkd</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>247</td>
<td>Urban active</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>256</td>
<td>Fubles</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>258</td>
<td>Sportilia</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Figure 2.9 - Personal elaboration of the "Localization" group in the framework

The features that make up the fourth group (Localization) are related to the localization of the activity.

- Maps: presence of a map inside the application where it is reported the location where the activity takes place, with the possibility of on-line and off-line consultation.

- Geolocation (Geoloc): chance to find your own position during the performance of even within the facility (in the case of golf clubs and ski resorts).

- Navigator: directions in real time that allow reaching the place where the activity takes place.
In the fifth and last group (Activity management) are considered the functions that help to customize the athletic experience.

- **Tools:** presence in the application of tools used during the execution of the activity in order to keep track of their performance.
- **Planning:** ability to schedule activity's sessions and synchronize them with your own calendar.
- **Training:** presence of sections dedicated to learn or to improve your own skills through videos, comments and discussion with experts.
2. METHODOLOGY

2.4.2 Social approach

The analysis of multichannel approach considers only the Social Network Facebook as the channel is the most prevalent and developed (as explained in Chapter 1); also its available configurations are easily identified and each one refers to a predefined template.

<table>
<thead>
<tr>
<th>ID</th>
<th>APP NAME</th>
<th>PROFILE</th>
<th>APP</th>
<th>FAN/PAGE</th>
<th>TACTICAL FP</th>
<th>STRATEGIC FP</th>
<th>UPDATED</th>
<th>#LIKES</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
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<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>30600</td>
</tr>
<tr>
<td>6</td>
<td>Messenger</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>x</td>
<td></td>
<td>x</td>
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<td></td>
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<td></td>
<td>Yes</td>
<td>3614</td>
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</table>

Figure 2.11 - Personal elaboration of the approach to Facebook utilization

- **Profile**: the existence of a profile having as main characteristic the ability to add contacts and post comments, photos, videos; can be an assessment of popularity by the number of friends.
- **Application (App)**: specific application’s page that allows the access to the application itself through the own user profile, the sharing of information and the sending of them to the own mobile device.
- **Fan page**: option that best suits the needs of the actors involved, in order to increase their visibility; it allows to create a page with classic contents (general information and posting of comments, photos, videos and events) and in addition allows you to leverage the capabilities of other programs (extensions for YouTube, Twitter, Pinterest and chat, poll, music videos, shop); also it allows to invite new users to follow the
page and to monitor the extent of the post (how many users have viewed them and how many users are actively involved).

- **“Tactical” fan page**: the function of the page is only to inform members about products/services, new initiatives and proposals, to advertise the activities of the company; "tactical" indicates that its effects are mainly in the short term, do not involve significant investments of any type and has no impact on the organization of the company, it is easy to implement, but does not guarantee a competitive advantage over competitors in the medium-long term.

- **“Strategic” fan page**: through exclusive offers, discounts and promotions, special features, the company seeks to expand its market size and keep it in the long run; unlike the previous one, "strategic" refers to a series of actions that, in addition to requiring a greater use of financial resources and not, have an impact on the organization of the company and have a short implementation time; despite the increased complexity, if the programming has been done correctly, these actions would create a competitive advantage in the medium-long period.

- **Updates**: updating of the information on the page (in the last six months); greater the frequency and the number of updates, greater the consideration by the company of the role played by this channel to increase its popularity and diffusion.

- **# likes**: the number of subscribers to the page that automatically receive the published updates; it quantifies the level of popularity of the product/service on the Social Network and can be used for evaluations of the marketing with respect to the target and the size of the market.
2.4.3 Offer in the Italian market

On the surveyed application was taken a further analysis considering the approach on the market; coherently with the objective of the analysis, have been reported Italian and foreign applications that have an offer in the Italian market. In addition, assuming a possible future desire to grow, we have analysed the Italian applications that have characteristics suitable to expand their customer base abroad.

For the Italian applications we can consider exhaustive the census, while for the foreign ones it is a random and significant sample.

2.4.4 Focus on eCommerce applications

At the end, a further analysis was performed using a selected sample regarding the use of the functionality "Social Network Connection", "Reservation", "Payment" and "Price & discounts" since they are considered the most interesting for the object of the analysis, focused on eCommerce; the selection of the sample involved the removal of those applications with tools/tracker nature and those used only as a source of news or to publish the own experiences.

In addition to this, we created a chart to analyze the degree of adoption of eCommerce comparing to the Social approach in order to highlight the position of the selected applications in the new sample and to highlight possible trends or anticipate possible new developments.

The horizontal axis of the chart, Social approach, considers the approach to the social channel of Facebook, for the reasons inserted in paragraph 2.4.2, and it was divided into three ranges:

- No social approach: the application does not use any of the Facebook's configurations.
2. METHODOLOGY

- Tactical approach: are considered "Tactical" configurations "Profile" and "Tactical FP"; it is sufficient that the application is either to belong to this range.
- Strategic approach: are considered "Strategic" configurations "Application" and "Strategic FP"; it is sufficient that the application is either to belong to this range.

In the presence of mixed configurations, has been given priority to configurations having a higher "social approach".

The vertical axis instead, refers to the degree of adoption of the eCommerce procedures and the three groups were divided as follows (with reference to the group "eCommerce" in Chapter 2.4.2):

- Price & discounts: within the application are only present information on the price of the offers or coupons, exclusive promotions only for the application's users that can be used at the time of purchase.
- Reservation: possibility to reserve the own sport experience directly from the mobile device; the presence of "Reservation" feature is necessary and sufficient to justify the presence of the application in this range; it is not required the presence of the features of the previous range.
- Payment: possibility to pay for the selected sport experience directly via the mobile device; also in this case the presence of the "Payment" feature is necessary and sufficient to justify the presence of the application in this range, it is not mandatory that are present the characteristics of the previous ranges; must also be considered that in some cases, although not reported explicitly, the function "Payment" already contains inside the "Reservation" feature as paying for the sport experience directly reserve the own place.
2. METHODOLOGY

![Diagram of eCommerce chart]

Figure 2.12 - Personal elaboration of the eCommerce chart
3. **EMPIRICAL ANALYSIS**

In Chapter 3 will be presented the results emerged from the empirical analysis following the methodology described before: starting from the websites that offers the possibility to buy sport experiences and their multichannel approach till mobile applications of sport and fitness category with their characteristics.

3.1 **Websites offering sport experiences**

The research is focused on the websites of Italian and foreign companies belonging to the categories of couponing (offering experiences of various kinds through the purchase of coupons on the model of Groupon and Groupalia) and organization (ability to plan and book sports events) that have an offer in the Italian market; were not considered the websites of companies with offers tied only to their facilities or to their sport of expertise (e.g. paragliding, rafting, gyms, sports centres). After deleting websites aimed at foreign markets or that do not offer sports experience, has been analysed the multichannel approach of the 25 sites selected and divided in their respective category, verifying their presence on both Facebook and mobile market through their applications. Later were added 9 new elements found during the analysis of mobile applications and to which was made the same analysis of the previous, bringing the total number of the sample to 34 units.
3. EMPIRICAL ANALYSIS

COUPONING

1) Groupon 6) Glamoo 11) Offerum
2) Groupalia 7) Poinx 12) Acquisitionline
3) Prezzofelice 8) Jumpin.it 13) Sconton
4) Letsbonus 9) Comincom 14) Yoodeal
5) Cupuppo 10) Shoppypgroup

MANAGING

1) Fubles 6) Easyfootball 15) Prenotaconme
2) Sigioca 7) Sportleague 16) Sport Club
3) Campisportivi.com 8) Gokick.org 17) Diving in love
4) Sportilia 9) Isisport 18) Gymmit
5) Duepalleggi 10) Gimfit 19) Totalcup
6) Soccerbook 11) Isuesgo 20) Crank-up
7) Prenotapartita 12) We-sport

In italics websites added after the census of mobile applications.

Graph 3.1 - Personal elaboration of website database composition

The Graph 3.1 shows the division of the 34 sites selected according to their category; even if the couponing sites appear to be more in absolute terms, in our sample this is not confirmed because not all actors offer the opportunity to buy sport experiences.
3.1.1 Multichannel approach

For the 34 websites found the approach to multichannel paradigm was analysed, considering the presence of link to social networks inside the web page or inside the mobile application.

Graph 3.2 - Personal elaboration of social networks utilization

The Graph 3.2 shows that the things said in the first chapters are confirmed, regarding the fact that Facebook and Twitter are the most diffused social networks: this two are present in more than one third of the 34 sites analysed, respectively in 94% (32) and 62% (21) of the cases; the other social networks, found in the sample, do not reach the 10%, excluding Google+ that reach the 10%, therefore will be considered only the aggregate value.
Graph 3.3, instead, highlights how the Facebook channel is used by nearly all the websites, as an alternative channel in order to reach new potential customers; this tendency is for sure a positive factor in order to increase the marketing and advertise effort without big economic investments and permits to receive an immediate reply for every action made and communicated through this channel; furthermore represents a very useful instrument to develop new strategies or to launch new products or services, because allows a direct interaction with customers also in the project phase.

The various combinations present in the 34 sites have underlined that, in the cases where at least one connection with a social network is active, Facebook is always present; while the most diffused combination, in the 35% of the cases, turns out to be Facebook & Twitter.
3. EMPIRICAL ANALYSIS

Graph 3.4 - Personal elaboration of the connection with the Facebook account

During the analysis of the 34 websites has been found another very interesting fact: Facebook results to be the only Social Network whose account permits the access to the functionalities of the site, avoiding to do a new and different subscription; this functionality, activated by the 44% only, can be considered “strategic” and will be resumed later in Chapter 3.2.3, regarding the adoption degree of eCommerce.

Graph 3.5 - Personal elaboration of websites’ mobile applications existence

With regard to mobile applications, research has found that half (50%) of the 34 surveyed subjects have not yet developed an application that allows the user to perform the required functions directly from its own mobile device, while only slightly more than one third (35%) has created its own application for both operating systems. For completeness we must take into consideration the fact that the development of an application requires a significant economic investment for the design and, in the case of the App Store, is required an additional cost for its publication in the official list.
3.2 Mobile applications in the sport category

In the census of applications, done from October to December 2012, was attempted to reach the same number of Apps for both the stores because in this way will be more simple and more precise to find and highlight possible differences. As said before in Chapter 2.4.3, for Italian applications we can consider an exhaustive census, while for the foreign ones we take a causal and significant sample.

![Graph 3.6 - Personal elaboration of mobile applications division in App Store](image)

The sample of 256 applications found in the App Store of Apple, as showed in Graph 3.6, is composed by 109 applications related to a specific sport, 95 to a sport facility or club and 52 to purchasing or managing sports.

![Graph 3.7 - Personal elaboration of mobile applications division in Google Play](image)
Graph 3.7 shows that the sample taken from Google Play, consisting of 256 applications, is divided in: 132 applications related to a specific sport, 84 to a sport facility or club and 40 to managing or purchasing.

There is a difference of 11% in favour of Google Play for the applications belonging the category “specific sport”, this is due to the fact that they are more simple to develop and, because in the Google store the tax for the publication is not requested, is present a high number of the same applications developed by different people that differ only in small details.

Graph 3.8 - Personal elaboration of mobile applications division in the unified database

The unified database, composed with the merger of the two censuses, is consists of 350 applications spread in the three categories; as evidenced in Graph 3.8, 170 belong to “specific sport”, 117 to “sport and facility/club” and 63 to “purchasing/managing”. The total number of applications is less than the sum of the two different databases simply because there are 162 applications that have the same version on both the operative systems.

The three categories, used to group the applications, take into account the final objective of the analysis, thus each of the 350 applications belongs only in one of the category and they cannot be applied to the totality existent in the two categories of the stores.
Among the characteristic selected, “Maps” is the most diffused between the 350 applications, because it guarantee the accessibility/reach of the event and also because it exploit the Google Maps service (62%) that is already present in the mobile devices. The other most common characteristics are “News” (56%), which is a fundamental element for many applications, and “Geolocation” (46%), that uses the GPS embedded in the most recent smartphones. The other characteristics taken into consideration are on average present in one third of the totality, depending on the service offered.

Considering the eCommerce functions has to be underlined that “Reservation” is present in not more than one fifth (22%), while “Payment” only in one ninth of the total (13%); it has been noticed that half of the sample actually has no interest in having one of this functions, that's because they are applications used in public spaces or to track performances. A further analysis, focused only on the eCommerce will be considered in Chapter 3.2.3.
Graph 3.10 - Personal elaboration of the application features in the unified database

For the 170 applications in the category “Specific sport” the most used functionalities are: “Maps” (77%), “Geolocation” (65%) and “Tools”. This happens because they are applications used during the execution of activities when is useful to know the place where you are practicing, in what point of the route you are and what are your actual performances.

The 117 applications developed for a specific sport facility or club most frequently embed “News” (93%), “Reservation” (50%), “Discount” (46%), “Maps” (48%) and “Planning” (49%) to keep informed the user on the next events or new promotions and discounts, to allow a easy way to reach the place, to book facilities and synchronize the appointments with the other events on the calendar.

In the category “Purchasing/managing”, composed by 63 applications, the most used functionalities are “Social Network Connection” (43%), “Sharing” (48%), “Maps” (49%) and “Planning” (51%) that allow communicating directly with your contacts, plan activities and share the experiences.
There are two sports that deserve more attention: golf and ski, because they are present with a lot of applications inside the sample (in all the categories). In many cases different applications, usually of a sport facility, are obtained changing information from a common one (same graphics and functionalities).

A function is considered as “most diffused” if is present in at least 40% of the applications designed for each sport; this threshold was established in order to have a limited, but representative, number of functionalities.

For the 83 golf applications the most common features are: “News” (67%), “Reservation” (43%), “Discount” (47%), “Maps” (57%), “Geolocation” (59%), “Tools” (46%), “Planning” (43%).

While for the 55 ski applications we found more frequently: “News” (82%), “Social Network Connection” (56%), “Sharing” (62%), “Maps” (85%), and “Geolocation” (62%).
3.2.1 Social approach

The social approach was analysed considering only the Facebook channel, because it is the most diffused and allows different options that enable an easy and fast classification, as explained in Chapter 2.4.2

Graph 3.12 - Personal elaboration of Facebook's options utilization

One third (33%) of the 350 applications considered doesn’t use Facebook at all as an alternative channel to promote activities; the most common solution is the “fan page” thanks to the many functionalities and extensions available; moreover in 47 cases are present two solutions simultaneously: 41 made of “fan page” and “app”, 6 made of “fan page” and “profile”. Only in two cases are present all the three possible options (Blipsport and Sconton).

The presence of companies that use at the same time a profile and a fan page worth some considerations:

- The profile is addressed to private users because has functionalities limited to the search of friends, communication and sharing between them.
- On the other side the fan page has the objective to have inside a group of people that shares the same passions/believes/objectives related to an entity/organization so it can be considered at the same level of a profile for realities that are not private users. The scope is to enlarge
the number of users that follows the updates and it is attributed to a marketing effort made by the company to promote their own products/services in order to have an increase of the business.

After these considerations the use of a “profile” jointly with a “fan page” can be considered a useless repetition and this behaviour made by business entities highlight that they haven’t a full knowledge of the Facebook channel.

![Graph 3.13 - Personal elaboration of the choice of Facebook's fan page](image)

The use of a fan page, despite the large diffusion, it is not yet seen as a possibility to enlarge their own market or to interact with customers, as shows in Graph 3.13; even though the adoption of a “strategic” configuration brings a lot of benefits, the necessity to have a dedicated position for communication with users and the consequent increase in the economic and organizational effort, represent the major obstacle.

### 3.2.2 Offer in the Italian market

In order to analyse the offer in the Italian market a division of the application on the base of their reference market was done to have a more representative sample.
The 35% of the applications (152 on 350) doesn’t have a valid offer for the Italian market; mainly are excluded the applications of foreign sport facility or the applications of sport ticketing in American structures prepared for sport events and of other genres.

The remaining 198 applications can be considered in the following way: 59 are Italian and addressed only to Italian market, 17 are Italian that can be used also in foreign markets and 122 comes from abroad but can be used in Italy.
In Graph 3.15 are reported the division between Italian and foreign applications in the unified database, in red are considered those applications that have a different market than the one in which they were developed.

**Italian market**

![Graph 3.16 - Personal elaboration of the Italian market's composition](image)

In Graph 3.16 are reported only the 198 applications that have a valid offer for the Italian market, the foreign applications result to be one and a half times the Italian ones, but has to be said that were considered also the applications that, even in English, can be used also in Italy because they are very intuitive.

![Graph 3.17 - Personal elaboration of application division by category in Italian market](image)
Graph 3.17 shows the division of the 198 applications that offers a service for Italians, in comparison to the Graph 3.8 the percentage of applications developed for a sport facility drop by 18 points (more than a half); the cause is attributable to the presence of a lot of applications owned by American golf clubs that cannot be considered in the Italian database.

Graph 3.18 - Personal elaboration of application features in Italian market

With reference to Graph 3.9 can be noticed that the proportion between the different functionalities are more or less the same; also in this case “Maps” is the most present with the 64% while “News” undergoes a decrease from 56% to the 37% of the 198 applications.
Italian offer for abroad

Graph 3.19 - Personal elaboration of Italian offer for abroad

The 17 Italian applications, that have or can have margins of expansion abroad, are divided in “Specific sport” and “Purchasing/managing” because, as said before, the applications of sport facilities are not suitable for people that came from countries that are not the same of the application, unless you do a total reconfiguration for the specific structure present in another country.

Graph 3.20 - Personal elaboration of Italian offer for abroad

Also in this case the most frequent functionalities considered are the one that go over the 40% of the sample, and also here “Maps” is the most diffused (47%), followed by “Social Network Connection” and “Sharing” (41%).
3.2.3 Focus on eCommerce applications

### Graph 3.21 - Personal elaboration of the eCommerce categories

After the elimination of the applications that don't need eCommerce functionalities, the sample passed from 350 to 122; the comparison between Graph 3.21 and Graph 3.8 highlight that “specific sport” sector passed from 49% in the unified database to 23% (from 170 to 28) of the new model.

This variation confirmed what said before about the nature of the applications, used in a specific sport, which are developed only as an instrument to register performances or share experiences.

### Graph 3.22 - Personal elaboration of the comparison of eCommerce features
Using the numbers of the new sample we made a comparison between the presence of functionalities “SNC”, “Reservation”, “Payment” and “Price & discounts” of the new model and the unified database. Only these four functions are considered because are the most important for the objective of our analysis, focused on eCommerce:

- **Social Network Connection (SNC):** the increase of 3 points, from 35% to 38% is the lower considering the other functionalities; a possible cause is related to the high effort needed to activate the access to Social Network directly inside the application.

- **Reservation and Price & discounts:** these functionalities have the higher changes, going from 24% to 61% and from 29% to 74%. These values are aligned with our hypotheses done at the creation of the new sample (deliberately focused on eCommerce)

- **Payment:** despite an increase of 12%, it does not reach the 30% as the other functionalities; making not satisfied the results. Has to be noticed that in many cases the introduction of this feature requires big efforts and investments to create and maintain all the information regarding prices and promotion, as well as should be compulsory to create partnerships, both at communication and IT infrastructure levels between the owners of the commercial activities and the developers of the applications.
3. EMPIRICAL ANALYSIS

The last step of eCommerce analysis (considering the new sample) brings the creation of a chart in order to consider the link between the social channels approach and the degree of eCommerce adoption.

The results of the analysis bring out two main clusters:

- **Low social approach – Low eCommerce degree**: in this sector are present the applications that don’t use Facebook as an alternative channel and don’t show prices, coupons or discounts. This is the lowest level of adoption and the fact that is well diffused is due to its easiness of creation and management.

- **Medium/High social approach – Medium eCommerce degree**: These two sectors are the real starting point for the use of social network as a channel for businesses and the adoption of eCommerce. A possible evolution is represented to the movement in the higher line, which
means adding to the “Reservation” functionality, the “Payment” coming to the last step of the eCommerce adoption.

Figure 3.2 - Personal elaboration showing the two clusters
3.3 Sport eCommerce in the Italian market

The last step of our research (considering what done till now) consists in evaluating the adoption of eCommerce between the applications for the Italian market with the values of the sample itself.

Graph 3.23 - Personal elaboration of the Italian eCommerce categories /1

The number of applications considered goes from 122 to 32 and also the distribution inside the categories changed with respect to Graph 3.21; the increase of “Purchasing/managing” to 47% is due to the presence of applications developed by some websites reported in Chapter 3.1, that have high relevance for the eCommerce functionalities; this influences a lot the percentages because now remain only few interesting applications for this analysis, considering also that the applications for specific sport facility fall down from 59% of Graph 3.21 to 37% of Graph 3.23.
Despite the big decrease in the number of applications listed in the new sample, the changes in the percentages of eCommerce functions were not so important:

- Social Network Connection (SNC): as already seen in Graph 3.22, also in this case the change result to be low, the value decreases of 7 point going to 31%.
- Reservation and Price & discounts: as for the previous parameter, the two functionalities have the same trend as in the Graph 3.22; the values fall to 53% and 56%.
- Payment: this is the only positive change, going from 23% to 31%. This shift is mainly caused by the presence of applications developed by some of the 34 website (couponing and managing) of the first analysis. They provide necessarily the payment function in the mobile application.

Since that the Italian sample can be considered exhaustive while the foreign one is only a representative one (as explained in Chapter 3.2), some corrections were made in order to delete the effect deriving from the lack of applications developed by foreign websites for foreign markets. This is the reason why the “Payment” function increase in a clear way.
Four applications were deleted from the initial database of 32, so the 28 remaining are more reliable. This four applications are linked with Italian websites that offers coupons (4 out from 14, referring to Chapter 3.1), but addressed only to Italian market.

The analysis of the four functionalities of eCommerce, done on the new corrected sample, had different results:

- Social Network Connection (SNC) and Reservation: these two features faced a reduction of 3% compared with previous values of Graph 3.24, so we can say that were not influenced by the correction.
3. EMPIRICAL ANALYSIS

- Payment: in this case the correction put the values aligned with our hypotheses, presented in Chapter 1 regarding the level of adoption of eCommerce in Italy compared with Europe and the rest of the world. Despite the high diffusion of mobile devices and the availability of eCommerce applications, the lack of IT infrastructure and the digital divide, put Italy in a disadvantage position.

- Price & discounts: the decrease of 12 points represents the biggest change after the correction of the sample but it still is the second most present functionality with 44%.

Figure 3.3 - Personal elaboration of the chart considering the positioning of the Italian eCommerce applications

The chart in Figure 3.3, based on the new sample of 28 applications, shows that the two clusters identified are still present. The fact that the third biggest group is placed in the sector “High social approach – High eCommerce degree” is justified by the limited number of the applications considered in this sample and their characteristics, as highlighted in the comment to the Figure 3.2.
In order to assess the best positioning of the applications, has been developed a new chart in which, for each of the sectors, is reported separately the number of applications belonging to each of the three categories.

Some considerations are also been done before building the new chart:

- Among the applications of the first cluster should not be including those belonging to the category "Purchasing/managing" because, as their purpose is to sell sports experience or manage the organization of sports events, shall have a medium to high level of at least one of the axes.

- In addition to the above consideration, it is assumed that applications with a low social approach with a medium or high level of eCommerce have been developed incorrectly as if their purpose is to book or sell sports experiences, it is necessary (if not even mandatory) that they have a social approach of medium or high level in order to support its business with alternative channels.

- The expectation is to find all the "Purchasing/managing" applications in the four areas with a medium or high level for both the features present on the axes; exceptions will be considered according to their specific purpose.
Figure 3.4 - Personal elaboration of the categories position in the eCommerce chart

As assumed above, the applications of the "Purchasing/managing" category are almost totally present in the areas with medium or high level of social approach and eCommerce; the two units in the quadrant with average social approach and low eCommerce degree are gym’s applications that, while still allowing you to see the information of the courses and organize your tasks by syncing with the calendar, do not allow users to book; in this case their position is not entirely correct and should implement as soon as possible at least the "Reservation" feature.

As regards the application positioned in the quadrant with low social approach and high eCommerce degree, having as its purpose only the booking of sports fields, although there is no obligation to also use social channels for performing better its functions, it could undoubtedly benefit from increased visibility ensured by the use of social networks as alternative channels; a similar consideration is deserved by the application of the sport centre located in the quadrant below.
4. SUMMARY NOTES

4.1 Websites offering sport experiences

The research is focused on the websites of Italian and foreign companies belonging to the categories of couponing (offers experiences of various kinds through the purchase of coupons on the model of Groupon and Groupalia) and organization (ability to plan and book sporting events) that have an offer on the Italian market; were not considered websites of companies with offers restricted only to their facilities or to their sport of expertise (e.g. paragliding, rafting, gyms, sports centres).

![Graph 4.1 - Personal elaboration of website database composition](image)

The analysis showed that among the 34 websites found, the payment functionality appears to be mainly used by couponing ones, while the organization is focused on the research of facilities and users requested to carry out the sport.
4.1.1 Multichannel approach

This section includes only the data regarding Facebook because it is the only social network whose account provides access to the functionalities of the website, avoiding to make a new registration.

Graph 4.2 - Personal elaboration of the connection with the Facebook account

The fact that the access to the functionalities of the website through the Facebook account is present in less than half (44%) of the considered websites, confirms that Italy is still behind for what concerns the social approach, useful as alternative channel for own business.
4.2 Mobile applications in the sport category

The result of the survey was the creation of a unified database for free apps in the sport category found in the stores of Apple and Google Play; the 350 applications have been divided into three unique categories, each item belongs only to one category, the proportions of which are shown in Graph 4.3.

![Graph 4.3 - Personal elaboration of mobile applications division in the unified database](image)

The categories with the highest number of applications within them appear to be "Specific Sport" and "Sport facility/club" with respectively 43% and 37%, about twice the category "Purchasing/Managing"; the reasons for this predominance are different for each category:

- **Specific sport**: since there is at least one application for each of the major sports, the offer may be considered exhaustive and justifies the large number of applications in this category.
- **Sport facility/club**: the size of the category is due to the fact that, in many cases, the facility uses a common application by modifying only the information to suit their own particular case; in this way the various sports centres may offer their own services on mobile devices by not develop an ad hoc basis.
Golf and ski applications

The golf and ski applications deserve a separate consideration because they emerge as the most numerous in our sample; due to the large size of the area required to play the sport, these applications can take advantage of the functionality “Geolocation” even during the activity, indicating in real time the user’s location and its distance from the structures of the plant.

Also, as noted above, applications developed for plants can be traced to a source application that was updated with the information about each specific sport centre and therefore they are easier to implement from both the point of view of the software and economically.

4.2.1 Social approach

The social approach was analysed considering only Facebook for its most widespread and its different options enabled, which allow an easy and immediate classification, as explained in Chapter 2.4.2.

Graph 4.4 - Personal elaboration of the choice of Facebook's fan page

The Fan Page usage, despite the higher spread, it is not perceived yet as an opportunity to expand its own market or to interact with users, as shown in Figure 4.4; despite the possible benefits of adopting the “Strategic” configuration, the need to have a dedicated position for the communication to the users with a consequent increase of the effort both from economic point of view that organizational, represents the major obstacle.
4.2.2 Offer in the Italian market

This section refers only to the 198 applications that have a valid offer for the Italian market; the foreign applications appear to be about one and half the Italian ones; must be said that were also considered those applications that, although being in English, allow to take advantage of all their functions thanks to their user-friendliness.

![Graph 4.5 - Personal elaboration of application division by category in Italian market](image)

The applications for the Italian market appear to be especially addressed to the execution of a particular sport (62%), while those intended to the sport centres form the smallest category; a possible explanation can be given whereas in Italy the provision of services, in our case of those sports, is still using traditional methods (reservation by phone call or e-mail and the payment in place).

It should also be considered that, unlike what happens in the U.S. and in other countries, a large number of sports facilities (stadiums, sports halls, sports centres) are owned by Public Administrations and outsourced to sports clubs that manage them for carry out their own activities; the result is the lack of initiatives different from ordinary activities and addressed to external users.
4.2.3 Focus on eCommerce applications

By removing the applications that do not have eCommerce between their purposes, the sample is fell from 350 to 122 units; this variation has resulted in the reduction of the number of applications addressed to a specific sport and designed only to the function of tool to record the user performance or share with other friends the own sport experience.

![Graph 4.6](image)

Graph 4.6 - Personal elaboration of the eCommerce categories

Despite the application developed for sports facilities represent two-thirds of the total, the most important feature, "Payment", is only present in 23% of cases; the cause is not due only to the companies that manage the sport centres, but also to the absence, in Italy, of appropriate IT infrastructure to support the related processes associated to the online purchase via mobile devices.

Subsequently were considered the data relating to the presence of "SNC", "Reservation", "Payment" and "Price & discounts" functionalities in the 122 applications of the new sample; only these four features were considered since they are the most interesting for the object of analysis, focused on eCommerce.

By entering the values of these features in a chart, whose axes are the approach to social networks and the degree of adoption of eCommerce, two main clusters have been identified, as described in Chapter 3.3.
The first cluster includes those applications that have a low level of social approach and eCommerce degree; the large number of applications, with respect to the total sample, is due to the greater ease of development and management of the application itself.

The second cluster, consisting of the applications with a medium/high social approach and a medium eCommerce degree, may represent the starting step with regard to the use of social networks as alternative channels for own business and to the adoption of eCommerce; a possible evolution for the applications present in this cluster is represented by the upwards shift, through the addition of functionality "Payment"; the introduction of this feature is the arrival point as regards the exploitation of the potential of eCommerce in the own business.
### 4.3 Sport eCommerce in the Italian market

Taking into account what has been done in the previous stages, the degree of adoption of eCommerce applications of the sample intended for the Italian market was compared with the values of the sample itself.

Since the Italian applications sample can be considered exhaustive while the other is only a representative one, as explained in Chapter 3.2, some adjustments have been made to the new sample in order to cancel the effect of the lack of applications developed by foreign websites and intended only for abroad.

![Graph 4.7 - Personal elaboration of the Italian eCommerce categories /2](image)

The different distribution in the three categories, from that shown in the Graph 4.6, is mainly due to the presence of those applications developed by some of the 34 websites that, given the limited number of units in the latter sample, saw an increase in their percentage.

Even for this final analysis, we have used the data on the presence of the "SNC", "Reservation", "Payment" and "Price & discounts" features in the 28 applications of the last sample for the reasons given in the previous chapter.

By entering the values of these features in a chart, whose axes are the approach to social networks and the degree of adoption of eCommerce, two main clusters have been identified, as described in Chapter 3.3.
As can be seen by comparing the chart in Figure 4.2 with the one in Figure 4.1, the distribution of applications of the two samples was virtually identical and therefore the considerations made in the previous chapter remain valid.

This analysis, referring to the object of the research expressed in Chapter 2.1, shows the results on the mobile applications developed for selling sport experiences in the Italian market and their functions related to the organization, booking and online payment processes, with the addition of the approach to social channels, to which has been given greater importance.

In order to assess the best positioning of the applications, has been developed a new chart in which, for each of the quadrants, is reported separately the number of applications belonging to each of the three categories.
The applications of the "Purchasing/managing" category are almost totally present in the areas considered more appropriate, with medium or high level of social approach and eCommerce.

As regards the "Sport facility/club" and "Specific sport" applications, even if the majority are placed in the right quadrants, with medium or high level of social approach and medium eCommerce degree, there are a lot of them with low social approach and low or medium eCommerce degree that should improve their functionalities.

In conclusion, the Italian market offers opportunities for new entrance: since it does not seem useful to enter in the first cluster for the reasons explained before, the suggestion is to initially start in the second cluster, but with the objective of making the next step to take full advantage, with the attached benefits, of the adoption of a business model based on eCommerce.
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