LUISS

Dipartimento di Impresa e Management

Cattedra di Management of Innovation

"Crowdfunding in Real Estate: do Real Estate Crowdfunding Platforms really know what moves the crowd?"

RELATORE

Prof.ssa Leone Maria Isabella

CANDIDATO

Mucedola Matteo Pio

MATRICOLA

709551

CORRELATORE

Prof. Peruffo Enzo

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INTRODUCTION

The aim of this work is to deconstruct and gain empirical evidences of one of the widespread current economies: Real Estate Crowdfunding. Particularly, the study will focus on two elements: open innovation and Real Estate Industry. Across time, the global environment shifted from the statement of “innovation” to that of “open innovation”. Defined in several ways from many authors, innovation’s definitions always present three peculiar characteristics: novelty, customer satisfaction and value creation. When it comes to “open innovation”, the main validated definition is proposed by one of the major representatives and initiators of this culture, Henry Chesbrough. He defines open innovation as the use of purposive inflows and outflows of knowledge to accelerate internal innovation and expand the markets for external use of innovation (Chesbrough, 2006). Going deeper into the “open innovation funnel”, the work flows to how relevant is, in this context, the transition from “local search” to “broadcast search”, aiming at involving the broader range of individuals for idea generations and solution proposal. At this point, “broadcast search” opens the door to crowdsourcing. Most popular forms of crowdsourcing are *crowdsourcing contests, collaborative communities, crowdsourcing complementors and labor markets*. The idea of leveraging the power of crowd is common to another phenomenon, of main interest in this analysis: *crowdfunding*. As for open innovation, a unique definition for this “innovative philosophy” is not provided. But, the most agreed clarification sees crowdfunding as an “*open call, run by the Internet, for the provision of financial resources by a group of individuals instead of professional parties either in form of donations, in exchange for a future product or in exchange for some form of reward*” (Schwienbacher A., Larralde B., 2010). Understanding crowdfunding means understanding which are its historical roots. In fact, crowdfunding has been already applied in the past, even if not in a conscious way or with the aid of technological instruments. Moreover, crowdfunding presented itself with different practice modelling, assuming a multitude of shapes and features, flowing into four main models: donation-based models, reward-based models, lending-based models and equity-based models. Even though less sophisticated actors could think the main motivation pushing crowd and initiators to engage each other is money, crowdfunding combines elements of *online philanthropic behaviour, online consumer behaviour, online peer-to-peer lending* and *online peer production*, predicting and explaining levers of motivation beyond the range of “extrinsic motivations”: fun, altruism, curiosity, reciprocity, social identification, regional identification, direct identification, indirect identification, team characteristics, ideas characteristics, personal needs together represents the tip of the iceberg called “intrinsic motivations”. Motivations represent the starting point of call to action. Call to action is moved by motivations and advantages pursuable. The ability to collect money in an alternative way, representing an alternative to a messy financial landscape, is not the only upside sharable between crowd and founders. The most reliable instrument to structure crowdfunding’s strengths, weaknesses, opportunities and threats is conducting a SWOT analysis. All these upsides and downsides identify today Crowdfunding as market rapidly growing, with a total market size of $ 358,275 billion, in which main players are highly heterogeneous in models applied and characteristic. To manage properly RECF it is relevant to assess also what is Real Estate Market. Simply put, Real Estate Market is defined as the market in which the sale's object between a buyer and a seller is the exchange of any kind of real estate properties, like houses, lands, business premises, etc. (Woychuk I., 2013). What is relevant in the analysis is the progressive process of new technologies introduction in this market, switching from "innovation identification" to "innovation identification" by digitization, data management, artificial intelligence, digital reality, cybersecurity and privacy. Since ever, Real Estate is considered as one of the more traditional and tangible way of investing. The difficulty to access these investments determined by knowledge of the market, regulatory framework, high disposition of capital and effective information have been blurred across the last decade thanks to regulatory modifications and tech advancements, flowing into a new market dimension: Real Estate Crowdfunding. Real Estate Crowdfunding (RECF) is a form of financing in which real estate project developers make an open call on the internet (typically through specialized platforms) to sell a specified amount of equity- or bond-like shares in a company or project, with the aim of attracting a large group of (primarily accredited) investors (Schweizer D., Zhou T., 2017). Looking at the transition from RE to RECF, it is not insane acknowledge the presence of some concerns, doubts and "shadows" floating over the macro-umbrella of crowdfunding and, by induction, over Real Estate Crowdfunding. This work aims to disrupt the incipits of Real Estate Crowdfunding, addressing the following Research Questions:

1) Which are the intrinsic/extrinsic motivations making stakeholders (Real Estate Crowdfunding companies/platforms and small investors/crowdfundee) engage/not engage in Real Estate Crowdfunding practices?

2) Which are the economic and social benefit experienced/perceived by stakeholders engaging in Real Estate Crowdfunding practices with respect to other forms of investment? And which the potential drawbacks arising?

3) Is there a link between «better economic and social results/relationships» and «Crowdfunding in Real Estate»?

Before any Research Analysis, it has been fundamental to go deeper into the Real Estate Industry Overview under four different aspects: history, actual situation, legal framework and main instrument used to invest in this market. Particularly, the analysis has been proposed being careful about two of the main geographical Real Estate Markets: E.U. and U.S. Obtained information about the RE market, the focus shifted to RECF, trying to go straight to the point. Information about current market performances, main actors in the pitch, advantages and disadvantages of RECF investment compared to alternative forms of financing have been propaedeutic to initiate Research Analysis. Finally, the Research Analysis is presented, with its characteristics and methodology. By directly contacting representatives from RE platforms and potential investors, Surveys have been proposed, gathering and elaborating valuable insights about different motivation levers pushing actors to play in this field, trying to give evidence about platforms' expectations on crowd reasons to engage with RECF. Additionally, the study wanted to highlight misleading perception of RECF representatives regarding individuals' needs and exigencies, proposing a critical analysis and effective solutions to make perceptions and needs converge in equilibrium. All this sustained by a prudent brake down of market evolution aspirations, regulatory framework appropriateness, and whole-industry wellness.

1) OPEN INNOVATION

1.1) WHAT IS OPEN INNOVATION

1.1.1) From “Innovation” to “Open Innovation”

When it comes to Innovation, a multitude of definitions have risen during the last century. Innovation definitions have leveraged on different dimension across time. Based on “ideas generation”, innovation could be defined as *turning an idea into a solution that creates value to a customer* (Skillicorn N., 2013) , *the application of ideas that are novel and useful, having creativity as the seed on innovation* (Burkus D., 2014) or “*a great idea, executed brilliantly, and communicated in a way that is both intuitive and fully celebrates the magic of the initial concept*” (Foley P., 2016); going through evolution, innovation is perceived as the attitude to *stay relevant; adapting and evolving to meet the ever changing needs of their constituents* (Shapiro S., 2011) or “*a feasible relevant offering such as a product, service, process or experience with a viable business model that is perceived as new and is adopted by customers*” (Van Wulfen G., 2011); focusing on customer value creation, Innovation is “*any variation as long as it includes “new” and it addresses customer needs and wants*” (Brands R., 2010) or “*the fundamental way the company brings constant value to their customers business or life and consequently their shareholders and stakeholders*” (Hobcraft P., 2015); ending with keeping attention on novelty, interpreting Innovation as “*work that delivers new goodness to new customers in new markets, and does it in a way that radically improves the profitability equation”* (Shipulski M., 2016). Proceeding, Innovation is viewed as something strictly connected with organizations and companies, that is run to pursue novelty, customer satisfaction and value creation. An all-in-one definition of innovation is *advancements through the innovative effort that is developed within society and the economy, with the intervention of all kinds of agents. They may be public or private and include firms, the state, universities and non-profit institutions* (Caraça, 1993; Lundvall, 1992). It is the dynamic process that brings improvements to product and processes, changes to organizational structures and activities, to exploit new markets (Lundvall, 1992). The innovation process could involve any kind of operator, organization, company or individual. This is key to understanding why, in the last two decades, the focus shifted way more from “the object of the innovation process” to “the subjects of the innovation process”. The developmental innovation process has been a liner process composed by a series of steps starting with the research, moving on to industrial development and eventually successful innovation implementation on the market (Rothwell, 1992; Senker & Faulkner, 1996). Advancements in technological systems and sciences, wider knowledge and information about consumer knowledge, new human needs, opportunities and new organizational implementation in business processes (Caraça et al., 2009) highlighted the importance of knowledge transfer between any kind of operator involved, within or not the organizational boundaries, with absorptive capacity crucial for learning and viewed as a multitude of interactions and dynamics generating cooperation, exchange and sharing of resources (Rothwell, 1992; Senker & Faulkner, 1996). The linear path of innovation is what today is call “closed innovation”, and, thus, has given the pace to a more dynamic and interactive view of the phenomenon, also known as “open innovation”.

1.1.2) Open Innovation: characteristics, drawbacks and benefits

Open innovation is defined as the use of purposive inflows and outflows of knowledge to accelerate internal innovation and expand the markets for external use of innovation (Chesbrough, 2006). Further, and in more recent works, Chesbrough assumed it should be understood as the antithesis of the traditional vertical integration model, where internal development flows into internal production (Chesbrough, 2012). It assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology (Chesbrough H., Vanhaverbeke Q., West J., 2006). Open innovation implies that both internal and external ideas could support the value creation for a business model; moreover, internal ideas could be carried through external channels, generating added value. In Open innovation, R&D is not perceived as a close system; it assumes that useful knowledge for value creation and idea generation is *widely distributed*, and that organizations should identify, capture and leverage external sources as they do with internal ones (Chesbrough H., Vanhaverbeke Q., West J., 2006). Open Innovation backbone is stressing the idea of “social interaction”, through which exchange thoughts, ideas and opportunities (Rothwell & Zegveld, 1985; Rothwell, 1991; Cohen & Leventhal, 1989). This gives inspiration to re-evaluate the function accomplished by R&D scientist within the organization; if in the closed approach they were seen as internal producers of the knowledge and resources needed for innovation development, in an open innovation system they have been re-invented as doorkeeper connecting internal scientists and scientist groups outside the company (Allen & Cohen, 1969). Since ever partnerships and cooperation exists in the market; the difference today is that organizations recognize the added value cooperation could give to R&D process (Grow & Nath, 1990). Increasing R&D costs, reduced time-lapse of product and increasing need for innovation does not make feasible for companies to work on their own. Alliances could play a key role for companies’ sustainability and new companies flourishing, not only in terms of access to scarce resources but also in terms of out-of-the-box R&D process. Technology has become in the last decade the main driver of company success; since technology is an ever-changing phenomenon, companies should change as well in the way they pursue technological advancements, the way they get it and the way they use it for success. The fast pace at which technological innovations appear on the market and are disrupted by new ones does not make feasible for companies trying to develop internally the knowledge, skills and resources needed to support customer needs; shortening of technology lifecycle, together with technology globalization and explosion of a myriad of technologies makes unsustainable the idea “discover first, market first”, shifting and rearranging it in “identify first, success first” (Rothwell & Zegveld, 1985). Today the potential of owning intellectual and industrial property rights is way higher than discover internally new innovations, representing a good leverage on intangible assets (Bainbridge, 1996). Open Innovation shift the attention from getting competitive advantage over competitors by being the “first-mover” or investing more in R&D to continuously testing and experimenting over a specific prototype, even if yet commercialized, and getting advantage from synergies arising between internal and external sources of knowledge. R&D is only a small percentage of innovation success, but not the only one. Be the first to enter a market or discover a new idea, does not always imply to be the winner of the market (Hoffman, Parejo, Bessant & Perren, 1998). Leveraging synergies arising by engaging with a wider number of operators, faster and skinnier idea generation process, shifting capitals from R&D internal investments to intangible assets and intellectual property rights, avoiding functional fixedness giving pace to higher learning capacity through external sources of knowledge, stronger R&D diversifications represent the main upside of open innovation implementation in firms (Ullrich A., Vladova G., 2006). Many studies in the existing literature broke down open innovation at a firm level. First because innovation is viewed as something trained by firms competing at an R&D level (West J., Vanhaverbeke W., Chesbrough H., 2005); second, generating value through innovation is possible just assuming and underlying a clear business model (Chesbrough H., Rosenbloom S., 2002). However, even if the presented upside of open innovation seem to be strictly related to the firm environment, the innovative process is carried out by individuals or group of individuals interacting within the external environment of a firm; understanding the way open innovation could integrate it in firms' processes requires and needs a multiple-level analysis. Sub- and co- firm levels of analysis are fundamental to better understand the sources of open innovation (von Hippel, 1988). Particularly, von Hippel, in approaching this analysis, crossed over to the definition of "free innovation", so innovation developed autonomously by individuals through grassroots-based innovation processes, involved in collaborative evaluations, replications, improvements and peer to peer diffusion. Stated the "Free Innovators and Producers Loop", tightening this continuous relationship, breaking down its accidentality, would mean extend the range of applicability not only to user-relationships, but also to sub- and co- firm levels. This put out in a more collaborative approach, where innovations were not protected by vaunted IP rights (von Hippel, 2017). Nevertheless, open innovation misses a methodological implementation approach for organizations such that uncertainty of positive or negative outcomes could be managed through project design (Ullrich A., Vladova G., 2006). The absence of such a model requires balancing the main advantages of open innovation with the potential upsides that could arise. Open innovation is represented by the famous "funnel" going from the research process, passing through development and manufacturing and ending with marketing. Innovation refers to the development and commercialization of a new or improved product, process or service, while the openness aspect is represented by the knowledge flows across the organization boundaries (Chesbrough H., Bogers M., 2013), involving inflows to the focal organization, knowledge outflows from a focal organizations or both. Despite the literature developed across the time, this model is not held perfect in some circumstances. Looking at the open innovation funnel, it seems to be a linear model consisting basically of a variation of the "stage-gate" model, where holes represent ideas exchanged throughout the process (Cooper R.G., Kleinschmidt E.J., 1986). The transformation of the innovation process from a closed to an open model creates several issues, potentially reversing the benefits of the perspective into downside, mainly concerning on two elements: coordination and knowledge. Whether an organization is not able to reverse the "conceptual failing of open innovation model"

(Trott P., Hartman W., 2009) above described, implement the open innovation system within the organization's boundaries would just be reflected in organizational and resource misalignments. Using external knowledge as source of competitive advantage and innovation boost requires understanding which are the external sources needed, how to engage with them and beware of costs potentially arising. External sources implementation, coupling coordination and organizational restructuring to accommodate the process would need clarity of scope and break-down of costs to be afforded; if forecasted gains from the open innovation process are not well discounted for the factors in game, they will never be able to compensate costs. This for what concern dealing with external sources. Implementing open innovation in the all-day workflow requires not only the essential restructuring to blur the organization boundaries, but also internal reforms to lay the foundations of a perfect synergic integration between internal workforce and external actors. Without a clear and unique direction, this could be difficult and paining to achieve, leading to confusion and frustration within the company, worsen the economic and innovative organizational landscape. All depends on the perspective innated in the organization culture; open innovation is not something to be represented in plans or in business models. It is an idea, a sensation, a feeling, deep-rooted in each single element composing the environment. Interpreting it as a "way of doing things" rather than "a way of feeling things" lead to wrong conclusions; innovations could arise just from a cyclical process of feedback from learning, where there are neither fixed points of origins nor of obsolescence, distancing from the classical models of technology-push and market-pull (Caraça et al. 2009). Beyond organizational and knowledge management issues possibly arising when implementing open innovation in a closed system, even if the organization would be successful and coherent on introducing open processes in line with its culture, legal provisions should not be underestimated. The intellectual property (IP) disassembly problem is the issue related to disentangling and allocating IP rights ones an open innovation project is closed or terminated or when one of the vital participants leaves (Granstrand O., Holgersson M., 2015). Coordination costs arising by opening the firm boundaries (Almirall E., Casadesus-Masanell R., 2010) and powerful governance of inter-organizational relationships through contract and IP rights are crucial on evaluating the added value of approaching open innovation (Chesbrough H., 2003). Contracts can be defined as legal agreements intended to formalize relationships with external sources by open organizations creating a set of obligations. IP rights refer to exclusive rights granted to owners of innovative creations of intangible assets. Common types of IP rights include patents, trade secrets, trademarks, copyrights. Open innovation should be based on mutual trust between internal and external parties; however, open innovation might be too open generating the risk others could improperly appropriate innovative development (Chesbrough H., 2006). In this context, it is impossible to not state the relevance of contractual provisions and IP rights. Different visions have been provided in the modern literature. Some recognize the value of legal contracts, manipulating the uncertainty surrounding open innovation efforts (Munsch, 2009) and control appropriation and ownership (Lee N., Nystén-Haarala S., Huhtilaienen L., 2010), although generally these contract remain for a large extent incomplete due to the uncertain nature of open innovation. Other criticized the introduction of these solutions in the open innovation landscape, considering them as a restriction of the knowledge diffusion between the parties (Pénin J., 2011) and a misleading interpretation of the idea of free sharing of the relevant knowledge (Baldwin C., von Hippel E., 2011). IP rights' existing literature is somehow comparable to the one on contracts, with authors advocating the advantages of IP protection and others stressing on tension generated between IP rights and open innovation. Some see IP rights as a facilitation to the exchange of knowledge between firms, as they realize their intangible assets are difficult to replicate (Pisano G.P., Teece D.J., 2007) or as a platform of the knowledge assets transfer (Graham S.J.H., Mowery D.C., 2006). Others suppose that IP rights create barriers to the broad accessibility and circulation of knowledge and technology (Pénin J., 2011), putting interests of individual first with respect to the market. Finally, it is important to acknowledge that contracts and IP rights represent a good solution to problems like control losing and coordination costs, allowing owners to possess the returns over their innovations; on the other hand, making security provisions prevail over the free circulation of ideas would limit the essential characteristic of open innovation (West J., 2006).

1.1.3) From "Search" to "Broadcast Search": applicative models

When considering introducing inbound knowledge flows, firms may consider shifting from local to broadcast search. Local search is a problem-solving approach based on internal core competencies and capabilities when searching for possible problem solutions. Broadcast search is an alternative problem-solving approach involving heterogeneous external actors in developing solution for a potential organization problem (Lakhani K.R., 2006). When presenting a problem to internal R&D functionaries, they use their actual competencies trying to "fix" a specific issue; what could come wrong is that "what we know" could define "what we are searching to". This could translate in three possible scenarios: using the knowledge, skills and resources available in the way they are perceived without thinking about other "alternative uses", using the past to approach present or future challenges or supposing solutions for difficult problem would necessarily fit with simpler ones. Put simply, these phenomena are better known as *functional fixedness* (Duncker K., 1945), *use of prior experiences* (Allen T.J., Marquis D.G., 1964) and *complex solutions for simple problems* (Luchins A.S., 1942). Introducing broadcast solutions, the "poser" (generally the organization) structure the problem in the most suitable way, broadcasting it to many potential solver who works discretely and generally without information sharing during the problem solving; the one or the ones who come with the best fit solutions are rewarded with a premium (monetary or not). Opening the solution procedure to many heterogeneous solvers instead of being fixated on limited internal knowledge resource would provide the organization with better roots to solutions, probably unexpected by internal actors. Broadcast search has been the ancestor of what is known as *crowdsourcing.* The enforcement of Internet as participatory platform in early 2000 assisted the surge of interest by organization on leveraging the collective intelligence of bunch of people to serve disparate business goals with high level of involvement. Different literature reviews have given likewise different definitions of crowdsourcing, defining it as the *blend of bottom-up, open, creative process with top-down organizational goals is called crowdsourcing* (Brabham D.C., 2013), or *the act of a company or institution* *taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call* (Howe J., 2006). Howe identified crowdsourcing as the extension of another phenomenon, "outsourcing", but comparing it with the word "crowd", illustrating it with some already existing cases like Threadless, InnoCentive.com, Amazon's Mechanical Turk and iStockphoto.com (Brabham D.C., 2013). Literally, crowdsourcing could be defined as the practice of engaging with a "crowd" or "group of people" for a common goal, giving access to new ideas and solutions, opportunities for co-creation, optimization of tasks and reduced costs. The proactive nature of consumers and their direct involvement in the innovation and production process allow us to rename them as "working consumers" (Howe J., 2006), giving also new meaning to the "long tail" effect: if it was supposed to give evidence on how different consumers' tastes reflect on the demand side requiring adjustments on the supply side, crowdsourcing opens the doors for different consumers knowledge, skills, attitudes directly involved and incorporated in the supply side and, so, in the production (Anderson C., 2004). The traditional definition of crowdsourcing covers a broad range of activities originally performed in house and now outsourced to a crowd. Activities can involve beginners, experts or both with intrinsic, monetary or mixed incentives to design and produce products, generate ideas and experimenting prototypes. One issue organizations face when deciding to "go crowd" is whether to reserve free entry to crowdsourcing methods or limit them a restricted number of participants. In fact, if engaging with a broader crowd would allow an higher likelihood that at least one participant would come up with a solution, also known as *parallel path-effect* (Boudreau K.J., Lacetera N., Lakhani K.R., 2008), or at least provide the organization with a higher set of possible solutions (Terwiesch C., Xu Y., 2008), on the other side reserving participation to a limited set of possible external sources would be translated in higher winning possibilities for participants and, so, higher marginal returns of efforts (Che Y., Gale I., 2003). An organization can implement co-creation and crowdsourcing through either its own firm-hosted communities or third-party providers who support the organization in break down the problem and define the best way to get information from the crowd (Zheng H., Li D., Hou W., 2011). Most popular forms of crowdsourcing are crowdsourcing contests, collaborative communities, crowdsourcing complementors and labor markets. Crowdsourcing contests are idea- or concept-seeking process outsourced to an undefined group of people in the internet. Ideas are traded as information goods between working consumers and solution seeking companies (Shapiro C., Varian H.R., 1998), but organizations requiring help in structuring and posing the problem generally refer to crowdsourcing platforms or marketplaces like InnoCentive, Presans or TopCoder. Allowing many agents simultaneously exert effort to submit a solution in a competitive landscape to pursuit a reward (Cavallo R., Jain S., 2012), contests are most suitable when the organization know which is the problem to be solved or objective to be reached, but does not know which is the set of knowledge needed or technical approach to be adopted. Organizations would benefit from different solutions implemented by a broad extent of different profiles and repetitive experimentation. While in crowd contests each participant submit independently his solution to get the prize, in crowd communities it works differently. If a community is a group of individuals, which develops common will and knowledge, shares experiences and builds its own identity (Wenger E.C., Snyder W.M., 2000), crowdsourcing communities are bunch of people organized to marshal the output of multiple contributors and aggregate them into a coherent and value-creating whole. Crowdsourcing communities requires first the definition of what to be included in the final output by the seeker; then, it is important to blur the lack of cohesiveness arising when different people with different skills relate themselves. This could be avoided by supporting continuous observational learning, providing consumer workers with expert-generated feedback and peer-generated feedback, increasing accuracy, full-view of the solution, trust and reliability (Mamykina L., Smyth T.N., Dimond J.P., Gajos K.Z., 2016). Relevance of network effect and studies on platform strategies have remarked the consideration of platforms as multi-sided markets, where complementors on one side compete to sell to users of the other side (Zhu F., Iansiti M., 2011). iTunes provide additional services on a multitude of issues for iPod, iPad, iPhone. This transformed products and services into platforms in which additional products and services may be related. This led to what is better known as crowd complementors. Crowd complementors enables a market for good or services to be built on an organization's core product or technology, effectively transforming that product into a platform that generates complementary innovations. What makes crowd complementors interesting for "platform owners" is the "two-side network effect" might be generated: on one hand, users prefer to access platform with a large number of complementors, on the other hand complementors' incentives to develop additional products/services will be higher for platforms with many users (Boudreau K.J., Jeppesen L.B., 2014). Complementors, and in general crowd innovators, are moved by different and heterogeneous motivations (Belenzon S., Schankerman M., 2014); it is fundamental for platform owners to identify different classes and manage them in the proper way. Crowdsourcing revolutionized the way organizations could access to knowledge and skills. Ultimately, it revolutionized also the way organizations could provide those skills and knowledge on the labor market. Crowdsourced labor markets match skills to tasks rather than matching workers to jobs, substituting long-term company-workers relationships with highly flexible platforms or "spot markets" (Marinova D.M., 2016). Labor markets as Amazon Mechanical Turk are making easier for organizations to "find what they are searching for": ones they elaborated the skills and knowledge they need (and so their potential profile) they can easily scroll into the spot market's ranked categories, identifying the best fit for what they need. It is particularly useful for small, difficult to automate tasks like transcription or translation (Garg V., Kanich C., Camp L.J., 2013). AMT allows requester to post micro-tasks, such as "find the email address for a company", "vote for the best translation", "rate adult-oriented videos for quality and relevance" (Bannerman S., 2012). Apart from crowdsourcing, a new phenomenon emerged: crowdfunding. The link between the two is that both draw on the power of crowds and networks, for their knowledge and problem solving skills, or for their funds or implicitly their evaluation of a product.

1.2) CROWDFUNDING: CHARACTERISTICS

1.2.1) Definition

Crowdfunding lends itself to numerous and different definition in the modern literature. Some define it as "*a form of entrepreneurial finance which allows for the raising of funds from a large number of individuals via online platforms*" (Cholakova M., Clarysse B., 2015), others like "*a collective effort by people who network and pool their money together to invest in and support efforts initiated by other people or organizations*" (Ordanini A., Miceli L., Pizzetti M., Parasuraman A., 2011), "*an individual achieving goal by obtaining minor contributions from numerous parties*" (Royal C., Windsor G.S.S., 2014) or "*a method of collecting many small contributions, by means of an online funding platform, to finance or capitalize a popular enterprise*" (Freedman D.M., Nutting M.R., 2015). The reference definition used in this work defines crowdfunding as an "*open call, run by the Internet, for the provision of financial resources by a group of individuals instead of professional parties either in form of donations, in exchange for a future product or in exchange for some form of reward*" (Schwienbacher A., Larralde B., 2010). Many small ventures still face some difficulties in raising outside capital, both in equity and debt terms (Cressy R., 2012), given usually the lack of collaterals and cash flows or the presence of information asymmetry with investors (Cosh A., Cumming D., Hughes A., 2009). Many entrepreneurial ventures remain unfunded, partly because of the lack of minimum value that can pledged to financial investors and partly because of unsuccessful attempts to convince investors (Shane S., Cable D., 2002). While some entrepreneurs prefer to delay raising venture capital to avoid equity stake dilution, some others are just unable to raise funds due to the lack of innovation perceived by potential investors or lack of management experience. Translated, there is an "asymmetry of expectations" between founders and institutional investors: the first have little to offer to the latter besides hopes and dreams; the latter need something more to believe they can make a profit over the investment (Bhidé A.V., 2000). Some companies, even big ones (Hofman M., 1997), are adopting parsimonious strategies to gain control over resources without counting on big investors or securing resources eliminating need for finance (Winborg J., Landstrom H., 1997). Stating this landscape, some organizations started leveraging on personal resources, human and social capital through bootstrapping (Greene P.G., Brush C.G., Hart M.M., 1999) in exchange for future compensation to access resources (Winborg J., Johannisson B., 2001) or relying on the Internet to directly seek for financial help from a general public (crowd) instead of institutional investors (business angels, venture capital funds, banks) (Lambert T., Schwienbacher A., 2010). In this context, in the last two decades crowdfunding has gained substantial public exposure, allowing small and young businesses to raise capital in form of donations, loans or equity from a huge number of unrelated individuals (called "the crowd") (Belleflamme P., Lambert T., Schwienbacher A., 2012). Crowdfunding is particularly referable to small businesses in their seed, start-up or early stages, after leveraging on internal sources funds (founders, friends and family) and preparing for attracting external capitals from venture capitals or banks. However, they could be not attractive enough to receive funding stages from traditional intermediate investors like private angels (Collins L., Pierrakis Y., 2012). Successful crowdfunding campaigns provide new businesses not only with million of dollars needed to fund business plans or validate ideas, but also expertise in community's creation, market knowledge, marketing and publicity (Mollick E., Robb A., 2016). Funding is just the first step of a very complex path to success. In a research conducted by Mollick E. and Kuppuswamy V., a sample of interviewed creators, reasons to use crowdfunding beyond collecting money have been “see if there was demand for the project”, “a way of marketing projects”, “the project could have not been funded without raising the goal”, etc. What should be assessed in future is the likelihood of the crowd remaining ongoing through the business development and how crowdfunding would deal with alternative external forms of financing, like VCs, incubators, accelerators and angles (Mollick E., Kuppuswamy V., 2014)

1.2.2) A journey on the crowdfunding history: from offline to online

When talking about crowdfunding, literature generally root this phenomenon to the advent of Internet or online practises. Crowdfunding’s roots are deeply entrenched to the offline world, way behind the explosion of Internet. For some, crowdfunding does not require online or technological platforms, but, instead, has long been “offline”, defined as the practise of financing and endeavour by collecting small sums of money from numerous individuals through direct interaction or print media (Gras D., Nason R.S., Lerman M., Stellini M., 2017). The Irish Loan Fund is credited as the starting point of offline crowdfunding. Specifically, the Irish Load Fund is credited for the inception of microfinancing. Basically, founded by Jonathan Swift in the 1700s, its main purpose was that of providing low-income families, who didn’t have access to financial institutions, with small sums loaned, repaid weekly and without interests under the guarantee of at least two neighbours (Bradley D.B., Luong C., 2014). By 1843 there were approximately 300 loan funds in Ireland (The Startups Team, 2018). In the seventeenth and eighteenth centuries it’s time for “praenumeration”, based on pre-selling items like books, magazines or publications prior to their writing or printing (Corsten S., 1991) and a century later the cooperative movement spread all over the Western Europe and US allowing individuals to come together and pool resources and risks (Everett C.R., 2014). Particularly, around 1850, Herman Schulze-Delitzsch and Friedrich Raiffeisen turned out the idea of cooperative ownership on finance, creating the first Credit Union. Credit Unions were volunteer run association, with an elective board of directors, were each member participated to vote regarding the amount contributed. 20 years later, thanks to the activity of Professor Muhammad Yunus, Credit Unions translated in the first sights of Microfinance. He initially loaned $27 to 42 poor women in Bangladesh. The initiative to fight against poverty was so successful to led to development of the Grameen Bank Project. Similarly to Irish Loan Fund, the main difference was that of collecting money wither from donations or members (The Startups Team, 2018). Going ahead, history narrates several cases of crowdfunding, even before the term “crowdfunding” has become so largely spread. Mozart raised money for performances by listing contributors in programs (Kuppuswamy V., Bayus B.L., 2014). Auguste Comte published in March 1850 “Premiere Circulaire Annuelle addressee par l’auteur du Systeme de Philosophie Positive” as part of a scheme to issue notes for the public support of his further work as philosopher (Simons O., 2016). London’s commercial network spared the Bank of England during the 1730s when clients requested their pounds to be changed over into gold; they bolstered the cash until trust in the pound was re-established. A prominent case is the construction of the pedestal of the Statue of Liberty; shipped from France to US as a diplomatic gift, unfortunately the US government was unable to raise the $ 250.000 needed for the statue's granite plinth. The American Committee of the Statue of Liberty, appointed as special task for to raise the funds, was able to raise just one third of the amount needed. The shortfall in funds spurred Joseph Pulitzer, renowned publisher, to launch a fundraising campaign in his journal, The New York World (Abdullah A., 2016). Internet have disrupted the way individuals perceive their lives; as well, it destroyed the way crowdfunding was performed (Schumpeter J.A., 1942). The first case of online crowdfunding has been with the British gang Marillion raising up $ 60.000 in donation and using the technique to fund their studio album (BBC, 2001). Mark Kelly, keyboardist of the band, send out email to his personal mailing list of 1000 person to sustain the tour project, otherwise they would have incurred in a loss. The "campaign" ended up with the tour raising the money needed for the tour. Beyond the tour, this case inspired the creation of the first crowdfunding dedicated platform in 2001, ArtistShare, mainly focused funding artistic initiatives. ArtistShare has been funded in 2003 by Brian Camelio, a Boston musician and programmer. It started as a website where artists could ask their fans for donations to fund digital recordings, then evolving into a fundraising platform for film/video, photography and music. The first crowdfunding project on the website was run by Maria Schneider to fund her jazz album "Concert in a Garden", raising $130.000 necessary to compose the music, pay musicians, rent the studio and produce and market the album. Rewards to participants were different and based on the amount donated: from privileges on first downloads to be nominated as "executive producers" (Freedman D.M., Nutting M.R., 2015). From music it passed to movies, with Mark Tapio Kines structuring a site and raising $125.000 in two years to complete its film, and so on. ArtistShare's success opened the doors for the creation of new platforms, expanding the application context for crowdfunding: from arts, these sites started hosting campaigns for social causes (animals, education, environment, health, politics). Effectively, the firs use of the word "crowdfunding" has been in August 2006, with Michael Sullivan, entrepreneur, attempting (and failing) to creating an incubator for videoblog projects (The Startups Team, 2018). But the most important evolution for our analysis is the implementation of crowdfunding platforms or websites in entrepreneurial finance and business development (Freedman D.M., Nutting M.R., 2015). While ArtistShare presented itself as a "reward-based crowdfunding" platform, JustGiving (1999) proposed a new method called "donation crowdfunding" where "funders voluntarily donate their money with no expectations of any tangible reward" (Burtch G., Ghose A., Wattal S., 2013). The key role played by reward in crowdfunding motivation (Steinberg D., 2012) explains why two of the main crowdfunding platforms, Indiegogo (2007) and Kickstarter (2009), have been founded as RBC platforms. On the other side, in 2010 AngelList has been founded as an "online equity-based private angels", aimed to "reduce the distance between startups and angel investors (Bernstein S., Korteweg A., Laws K., 2016). AngelList laid the foundation for the creation of the firsts "equity-based crowdfunding" platforms (EBC), CrowdFunder and CircleUp, platforms on which an individual can sell or buy shares of a company (Fleming L., Sorenson O., 2016). Beyond the market dynamics and evolutions, what democratized the boom of crowdfunding has been the pass of "Jumpstart Our Business Startup" Act a.k.a. JOBS Act by Obama Administration in April 5, 2012 (Powers T.V., 2012). Prior to JOBS

Act, the Securities Act of 1933 prevented private offerings from advertising to small investors in the U.S. (Lust H., 1934). “The purpose of the legislation I suggest is to protect the public with the least possible interference to honest businesses”, said President Franklin D. Roosevelt in 1933. The collateral effect manifested decades after, when, with the explosion of crowdfunding and alternative funding forms, small investors have seen limited the range of investment opportunities and small ventures have lost great funding opportunities. It didn’t take long that the crowdfunding business community became increasingly vocal about the outdated limitations that the Securities Act was imposing on online crowdfunding (Lakhani K.R., Hutter K., Friar G., 2015). The JOBS act stipulated that equity crowdfunding required rules be set by the Securities and Exchange Commission (SEC). Precisely, two dates have been fundamental in the JOBS Act implementation process: September 23, 2013 and May 16, 2016. The first date represents the implementation of the Title II of the Act, allowing general solicitation for unregistered private offerings to accredited investors possessing assets of more than $1 million or making more than $200.000 a year (American Jobs Act, 2012). Title II has led to almost $1.4 Billion raised but was not enough to talk of “democratization of crowdfunding”. In the latter date Title III came into effect, allowing each investor, not only accredited ones, to invest up to $2000 or 5% of their income or net worth in closely held ventures under SEC non-accredited investors regulations (American Jobs Act, 2012). Title III of the JOBS act gave high chance of spreading out to crowdfunding, but its success will always largely depend on whether the SEC implementation would be cost effective and flexible enough to encourage crowdfunding (Powers T.V., 2012). All these implementations allowed small investors to use their money not only for RBC or DBC, but also for EBC, allowing for higher investment possibilities and safeguarding from opportunistic behaviours like happened to Pebble’s small investors. Pebble (a company commercializing watches enabling users to interact with their Android or iOS device through an intuitive interface), on April 2012, launched on Kickstarter a campaign to raise $100.000 promising investors a watch every $120. Pebble reached the target in two hours and after 37 days closed the campaign raising $10 million from 68.929 people, committing to produce 85.000 watches to be delivered until September. Anyone of the units promised was delivered (Agrawal A., Catalini C., Goldfarb A., 2014). With this case, it is obvious to see how higher portfolio diversification, a strong legal framework and openness for new funding methods could lead both to stronger economic performances and investors’ safeguard. Notorious steps of crowdfunding evolution are the creation of the first crowdfunding platform business dedicated, Fundable, in 2012, and the highest funded crowdfunding campaign, Filecoin, rasing $ 257 million over one month to finance the creation of a decentralized data storage application, in 2017 (The Startups Team, 2018).

1.2.3) Crowdfunding models: classification

Having demonstrated how crowdfunding have legally developed during the last decades and actual definition of crowdfunding has been reached, it is good to distinguish between different classes of crowdfunding, based on mainly literature frameworks. A first distinction must be made between three types of model: donation, active investment and passive investment (Belleflamme P., Lambert T., Schwienbacher A., 2010). By *donations*, crowdfunders receive funding without providing investors with a monetary reward; these are particularly diffused in the non-profit landscape, where investors put higher significance on outcome than on returns (Glaeser E.L., Shleifer A., 2001). In passive *investment,* crowdfunders provide rewards of some sort to investors although keeping them distant from organization or project management (Belleflamme P., Lambert T., Schwienbacher A., 2010), since the company is not seeking influence from external actors over firm's activities (Gilo D., 2000). On the opposite side, in *active investment* crowdfunders provide investors with voting rights or different instruments for direct involvement (Belleflamme P., Lambert T., Schwienbacher A., 2010), granting them the ability to directly affect the results of the firm's projects (Rubinton B.J., 2011). In the actual landscape, the more the company is "established" on the market, the more likely will be the choice of active investment over passive investment in crowdfunding, as they will have the structures needed to allow a more active voice from investors (Belleflamme P., Lambert T., Schwienbacher A., 2010). Based on the time financial support is provided by the crowd to crowdfunders, it is possible to distinguish between *ex post facto* and *ex ante* crowdfunding (Kappel T., 2008). In *ex ante* crowdfunding, financial support by the crowd is provided before a specific result is achieved or a specific project is run, compensating contributors either by "patronage perks" (from advanced autographed copies to backstage access to shows) or monetary returns (Kappel T., 2008). Barack Obama organised his political campaign through crowdfunding, raising nearly three-quarters of a billion dollars, demonstrating the crowd's willingness to financially support what they believe in (Stirland S.L., 2008). Oppositely, in *ex post facto* crowdfunding financial support is provided ones the project is realized, or the product delivered to the public (Kappel T., 2008). In 2007, the band Radiohead allowed its fanbase to determine which price to pay for the new album release, In Rainbow, trying to cover the realization costs (Lipsman A., 2007). Hemer (2011) offers three main classification of crowdfunding initiatives. Ranked by process complexity, crowdfunding capital provisions could be classified (from the lower level to the higher one) into *crowd donations*, *crowd sponsoring*, *crowd pre-selling*, *crowd lending* and *crowd equity investments*. In *crowd donations*, funders give money to the organization mainly for altruistic purposes or intrinsic motivations, even though monetary rewards could be provided. In *crowd sponsoring* the organization who launches the project and the sponsor generally agree on a pre-defined reward for the latter. *Crowd pre-selling* allows investments direct at producing a specific good or service, giving funders access or ownership following the production. In *crowd lending,* funders invest in a specific project with the expectation of gaining a specific interest over the capital provided or a reward in revenue-sharing form. Through *crowd equity investments,* funders receive equity in exchange for their investment in the form of dividends, shares and voting rights. Based on the commercial background or objectives of the initiative or project, Hemer distinguish between *not-for-profit, for profit* and *intermediate crowdfunding,* in part following the distinction already announced by Belleflamme P., Lambert T., Schwienbacher A. (2010). A *non-for-project investment* is made on a project intended to accomplish societally important goals in different areas, like health care, public infrastructure, general charity and similar; a *for-profit investment* is made on a project deliberately set up for commercial purposes, like setting-up a company, funding a commercial project, promote R&D or develop a new product; an *intermediate investment* is made on projects "that are not clearly assignable as it is not yet clear what the commercial background will be in the long run". Lastly, based on original organisational embeddedness, so with respect to the project final motivation at the inception date, it is possible to rank between *independent/single, embedded* and *start-up* crowd projects. An *independent/single crowd project* is one set up by individuals and not rooted in any organization; *embedded crowd projects* are originally initiated within a private or public organisation, from a company to a supranational organisation; *start-up crowd projects* are ones initiated singularly but with the final scope of setting-up an organisation. Literature from Hemer about crowd donations and crowd equity investments are further disaggregated by Castrataro (2012). Precisely, Castrataro separate crowd donation into *all or nothing* and *keep it all* crowd investments. In an *all or nothing* reward model the funds provided by the crowd are not financially transferred to the project if the target set is not reached; in an *keep it all* reward model, inversely, financing is transferred to the initiators even if the target set is not reached until the due deadline. A typical case for the former is Kickstarter, while for the latter is IndieGogo. Then, crowd equity investments are separated into *club* and *cooperative* models. A *club equity crowd* model is the one in which funders are approached as members of a closed project, so not open to the public. A *cooperative equity crowd* model in the one in which collecting methods are set up to pool single contributions from individuals into legal entities which invest in the project. The former model could be associated to Crowdcube; the latter with GrowVc. A disruptive innovation like Internet have contributed across time on emerging all these types of crowdfunding practices (Schumpeter J.A., 1942), some substituting old offline methods and some other representing just an evolution of the latter. However, there are several ways offline crowdfunding manifest still today, due to several reasons. *Non-profit offline fundraising campaigns* outpaced in some cases online ones because of trustworthiness and honesty of organizations managing donations (Pollach I., Treiblmaier H., Floh A., 2005); sometimes, whether online platforms are introduced for donation initiatives, it just represents the "vehicle" to accomplish a superior scope: build relationships and spread the importance of communities (Gerber E.M., Hui J.S., Kuo P.Y., 2011). *Live crowdfunding events* are events during which entrepreneurs propose their business ideas to a "crowd", competing for an indeterminate amount of funds that may be provided, making the crowd both funders and judges of the competition. Instruments like Skype or Google Hangout could be implemented in live events to extend the participation to the crowd not physically present; cases like "The Live Crowdfunding Experiment" by which entrepreneurs sold pre-priced shares of their companies to the crowd present by FundedByMe are exemplification of how hybrid live events are just the development of offline practises, in which face-to-face and personal contact represent a relevant incentive for trust by the crowd (Anderson G., 2014). *Informal community loan* represents a good alternative to financial institutions but a hard-to-spread mechanism when came from external personal savings, microfinance organizations and loans from informal moneylenders, due to stringent requirements to access or high interest rates applied (Wahid F., Rehman Z., 2014). The natural implication is the high appeal this method when referred to borrowings from friends, family and near community members (Turnell S., 2009).

1.2.4) A crowd analysis: motivation for participation

Briefing on how offline practises have persisted even though the onset of Internet in the crowdfunding world give us the inspiration for further findings: incentives (and disincentives) from people engaging in crowd initiatives significantly affect the decision of whether (or not) to use specific mechanisms (Pollach I., Treiblmaier H., Floh A., 2005). Analysis of individuals' incentives to crowdfunding is fundamental to make a 360 degrees assessment of crowdfunding characteristics. To fully understand the spread of crowdfunding in the modern world, it is important to take a panoramic view of which are advantages and disadvantages for all the parties involved. This cannot prescind from the consideration of what drives people to either create or fund crowdfunding projects. Seeking for theoretical expectations why people engage and participate in crowdfunding means merge together different shapes of people's behaviour. Specifically, crowdfunding combines elements of *online philanthropic behaviour, online consumer behaviour, online peer-to-peer lending* and *online peer production*. *Philanthropic behaviour* is considerable as "giving of financial and social capital to promote human welfare" (Bekkers R., Wiepking P., 2010), generated, for the modern literature, by eight main determinants: awareness of need, solicitation, costs and benefits, altruism, reputation, psychological benefits, values, efficacy. It is not complicated to understand how this definition could easily extend to online philanthropic behaviour theory, where "online" allows lifting of geographical barriers between actors involved (Hossain M., 2012). Moreover, so many crowdfunding projects are set up for philanthropic projects; so, there is no harm in associating essential points from this theory to crowdfunding. Recent researches show people are motivated to give by different causes, starting from social status (Becker G.S., 1974) and social identity (Aaker J.L., Akutsu S., 2009), passing through feeling needs like "guilt" or "not giving" (Cialdini R.B., Baumann D.J., Kenrick D.T., 1981) or sympathy and empathy toward the project's motivation (Rick S., Cryder C., Loewenstein G., 2007). When switching to non-philanthropic crowdfunding projects, individuals will be "moved" more by belonging feelings than "final objective perceptions. Since crowdfunding is a disruptive way allowing business to fund ideas and commercialize products (Freedman D.M., Nutting M.R., 2015), it implies the presence of a market for those products. *Consumer behaviour* theory shows that consumers are significantly affected in the decision process by perception of choices (Iyengar S., and Lepper M.R., 2000) and product/service goals, information, affective processing and involvement (Jenkins H., 2009). When it comes to online consumer decision making, consumption decisions are swayed by navigation functionality (Miyazaki A.D., Fernandez A., 2001), trustworthiness and security perception of Internet (Chellappa R.K., Pavlou P.A., 2002). Trust concerns will be particularly remarkable in a context where crowd users fund production initiatives receiving the good/service (or a prototype of the reference product) weeks or months before the "road-to-market" process is initiated, affording risk of receiving as counterpart something that is not even the rough copy of the original product, not receiving the product or the product not coming into being at all. Online platforms could help breakdown preconceptions (Kandel E.R., Schwartz J.H., Jessel T.M., 1991). Differences in consensus judgment of borrowers' trustworthiness could arise in the field of small individual borrowings or “microloans” without the mediation of financial institutions (Herzenstein 2008), further note as *peer-to-peer lending*. Even though the financial risks afforded, people are prone to borrow money through online P2P platforms. Modern literature found out that the likelihood of lenders giving money to third parties would increase with an increase in requester’s credit score (Potzsch S., Bohme R., 2010) and disclosure of reputable information on their network and background (Lin M., Prabhala N.R., Viswanathan S., 2009). *Online peer production* could be explained through Wikipedia example: a platform where individuals or users work without financial compensation and merge their efforts on producing a specified result. The prospect of leveraging the collective intelligence and efforts of the crowd to tackle the world’s problems and a non-rewarded dedicated work by them (Malone T.W., Laubacher R., Dellarocas C., 2009) could be justified by two different perspectives in terms of motivations: individual or collective. Anticipation of learning, increased social standing, peer companionship and approval, autonomy and ability to improve society are all factors contributing to individuals’ online communities’ participation. Worth socialization, spread of integration, community commitment over time, recruiting and clustering others to build and increase identity-based communities, coordinating contributions could be summed up to the aforementioned having a full view of incentives (Resnick P., Kraut R., 2011). As these explanations account for voluntary contributions in online peer production, they could be easily extended to the crowdfunding field. The motives of human behaviour will logically lead to the motives crowdfundees invest in startups. The last point of our human psychological analysis would be the distinction between “motives” and “motivations”. A motive is conceived as an individually developed and content-specific psychological disposition; a motivation describes the process of how an individual’s motives become activated. A specific situational context will shape an individual’s active motive. Certain feelings an individual perceives would exert pressure becoming stimulus to motives in a specific context. Interaction and synergies arising between motives and situational incentives result in an individual’s motivation. Finally, the motivation turns into behaviour (Jost P.J., 2000). This basic model acts as bonding agent between the philanthropic theories previously exposed and crowdfunding motivational theories. The most commonly accepted is the self-determination-theory (SDT) proposed by Deci and Ryan (2000). Their starting point is the recognition that people are moved to act by very different types of factors, with vary experience and consequences. The self-determination-theory recognizes functional differences between self-motivation and external regulation, pointing out how distinct types of motivation differently impact on learning, performance, personal experience and well-being. A clear distinction between “intrinsic motivations” and “extrinsic motivations” is made. *Intrinsic motivation* describes the natural inclination toward assimilation, mastery, spontaneous interest, and exploration that is essential to social and cognitive development, representing the main source of enjoyment and vitality throughout life (Csikszentmihalyi M., Rathunde K., 1993). It is essential to recognize the impact social and environmental factors could have on facilitating or undermining intrinsic motivation, as described by the “cognitive evaluation theory” (Deci E.L., Ryan R.M., 1985). The CET demonstrated as external rewards, threats, deadlines, directives, pressured evaluations and imposed goals diminish intrinsic motivation, because they introduce an external locus of causality, adversarial to the inner drive of competence, autonomy, relatedness. Although intrinsic motivation represent a relevant component explaining individual's motivation towards crowd behaviour, it is not sufficient to totally explain it, mostly after the childhood, when the "freedom to be intrinsically motivated" is undermined by external pressures, generally identified as "non-intrinsically motivations" or "external motivations" (Deci E.L., Ryan R.M., 1985). *Non-intrinsically motivations* affect individuals according to the way they "internalize" an external value or regulation on their ongoing persistence, behavioural quality and well-being and "integrate" them into their own figuring out as their sense of self (Ryan R.M., Deci E.L., 2010). Resuming, extrinsic motivation refers to the performance of an activity in order to attain some separable outcome and, in contrast, intrinsic motivation refers to doing an activity for the inherent satisfaction of the activity itself (Ryan R.M., Deci E.L., 2010). Within the range of "intrinsic motivation", different literatures have evolved. *Altruism* could be defined as doing something for someone else at cost of oneself (Ozinga J.R., 1999); thus, crowdfundees motivated by altruism seek to reach a specific result without expecting any kind of reward. *Curiosity* is the exploration of one or more new stimulus perceived (Edelmann W., 2000); crowdfundees often invest in crowdfunding simply to better understand how it works, representing "in facto" a new stimulus (Ordanini A., Miceli L., Pizzetti M., Parasuraman A., 2011). *Social identification* is a driver for motivation potentially assuming different shapes. *Direct identification* drive crowdfundees to support projects developed by family or friends, being emotionally related to initiators (Agrawal A., Catalini C., Goldfarb A., 2011). Emotional involvement could be pushed also by first impressions about someone or something towards individuals perceive a special "chemistry"; simply, crowdfundees could be stimulated by *indirect identification* (Feeney L., Haines G.H., Riding A.L., 1999). Prejudgement and familiar involvement are not the only drivers for identification; sometimes crowdfundees invest in startups because of the "proximity" in geographic terms (Mollick E.R., 2013). Views about "r*egional identification* are conflicting, swinging from no effect on crowdfunding (Agrawal A., Catalini C., Goldfarb A., 2011) to someway biasing it (Lin M., Viswanathan S., 2013). *Fun* in developing ideas and publish results have been tested as one of the main drivers for open source projects, but also found in crowdsourcing (Bretschneider U., 2012). Sometimes project initiators who successfully developed their startups in the past using crowdfunding will feel "obliged" to reciprocate what they received; this is called *reciprocity* (Harrison R., 2013). Crowdfundees would invest in new projects or startup to increase their self-esteem through visibility and community approval (Bretschneider U., Leimeister J.M., 2017). Sometimes crowdfundees invest into projects or startups to be really involved in the development process, giving away powerful insights coming from their personal experiences; this would allow investors to support the realization according to their personal needs. Participation in crowdfunding arising from *personal needs* is spreading within the open innovation environment (Hars A., Ou S., 2002). Moving from intrinsic motivation to extrinsic motivation, it is not difficult to understand how crowdfundees could be spurred to invest in projects or startups by the promise of a predetermined (or not) reward, assuming different shapes from monetary profits to capital gains or conversion on invested capital. As analysed in Deci and Ryan study (1985), situational factors and contingences could affect the degree of assimilation, interest and competence and, so, the intrinsic and extrinsic motivation to action. *Team characteristics* as entrepreneurs' skills and qualifications and *ideas characteristics* like market potential and competitiveness are identified as main external factors affecting crowdfundees (Ahlers G.K.C., Cumming D., Gunther C., Schwizer D., 2015). Crowdfundees generally can see not only the result of their investments, but also the other investors' ones. This could influence the decision taken by a specific individual, in a scheme defined as "herding behaviour" (Banerjee A.V., 1992), coming full circle. Intrinsic, extrinsic and contextual or situational motivations give a full panoramic of individual reasons to act within the crowdfunding sector.

1.3) ADVANTAGES AND DISADVANTAGES OF CROWDFUNDING

Ones crowdfunding characteristics have been defined it is proper to broaden the crowdfunding's knowledge body assessing which are the main advantages and disadvantages for this disruptive innovation. Since crowdfunding has been defined as the ability of pool money from individuals who have a common interest on a project or new enterprise and are willing to provide small contributions towards the initiator (Lynn D.N., 2012), it is crucial to assess upsides and downsides from three different perspectives: entrepreneurs or initiators, individuals or investors and intermediaries. Crowdfunding's appraisal could not just rely upon the literature definition; the "next step" for a valuable assessment should consider also the link between the parties interested. If one of them fail to cooperate within this network, all the system will crumble. Stating that, a qualitative analysis would be needed to clearly define the phenomenon's pros and cons. SWOT analysis is a powerful instrument for qualitative analysis. SWOT analysis is propaedeutic in strategy planning, divulging the idea that good strategy means ensuring a fit between the firms' external environment (threats and opportunities) and its own internal qualities or characteristics (strengths and weaknesses) (Andrews K.R., 1971). Applied to crowdfunding, SWOT analysis would allow to distinguish opportunities and threats arising from the external environment and strengths and weaknesses proper of crowdfunding. Strengths are proprietary features of crowdfunding highlighted by the way it is designed or applied, giving advantage compared with other means of raising/investing capitals; weaknesses, on the opposite side, are shortcomings presented by crowdfunding when compared with other investments/funding methods. Opportunities identify external environment's traits exploitable to improve quality or usability of crowdfunding; threats, on the opposite side, are downsides in the external environment potentially harming crowdfunding's quality and usability. In performing our SWOT analysis (Figure 1), the study will look at crowdfunding modern literature, trying to fit internal/external benefits/disadvantages to the SWOT structure. Qualifying crowdfunding strengths, the study is focusing internal origin benefits (Mercer 1992). First, when a new startup or project's funding are raised through crowdfunding, entrepreneurs do not give much rights to investors, contrary to what happens when capitals are raised through private angels or venture capital. This will be defined as *keeping control*. The second strength is *accessibility* of crowdfunding. Relative new ventures fail in raising money from institutional investors because of not-high-enough growth rates, lack of collateral or proven records track

(Sigar K., 2012) and also because the number of entrepreneurs to be funded is slightly higher than the number of venture capital, private angels or banks willing to finance them (Bechter C., Jentzsch S., Frey M., 2011). Crowdfunding represents an opportunity to link new ventures with crowd capitals, filling that gap. However, even if crowdfunding opens up the possibility for an easier or broader accessibility of funding, beware of "how the crowd decide" is relevant, most of all compared to traditional method of funding, like VCs. In fact, knowing the strong signalling effect emanated by VCs, are no less in terms of signals of quality. A study conducted by Mollick E. demonstrated the relevance outside endorsement, prototypes evidence and past records of success has on crowd decision. This suggests that the crowd has the ability to distinguish good projects from bad ones, and that crowdfunding is not an easy way to collect money. Form this perspective, crowdfunding is not less sophisticated when compared to VCs (Mollick E., Robb A., 2016). Third, crowdfunding represents a *first market test*. The crowd are attracted by ideas they consider interesting, investing money and time on those. The potential success for a project or new venture could be already evaluated when crowdfunding the project/venture: higher capital attracted would mean higher attractivity for the crowd and, so, higher likelihood of success (Ramsey Y.A., 2012). Fourth, crowdfunding allows *fund locally and raise globally*. Internet and modern technologies allow capitals, people and trades to overcome geographical barriers and access opportunities globally; studies on crowdfunding demonstrate that most entrepreneurs prefer to "focus on their geographical community when investing but try to raise money globally" (Bechter C., Jentzsch S., Frey M., 2011). This idea is sufficiently supported by the fifth strength of crowdfunding, defined as "*local community support*". Crowdfunding has given (and is giving) the opportunity for talented people without monetary means to provide their ideas with the money needed to make success (Ramsey Y.A., 2012). Crowdfunding is seen as a *win-win mechanism*, giving returns for both creators and investors. Creators gets financial help while investors get social or economic involvement, regardless which one of the main crowdfunding models is used: reward model, lending model, equity-based model or donation model. In the former, funders get both material and immaterial rewards in exchange; in the lending model funders give money obtaining at the due date the amount invested plus a monetary return in form of interest; in the equity-based model creators invest money receiving in exchange shares of the company they invest in; in the donation-based model investors dispose their money even if they do not receive anything in return, moved by "social rewards" rather than "monetary returns" (Liu W., Aaker J., 2012). Since internal origin advantages of crowdfunding are well-defined, it's time to shift to the other side of the coin. About weaknesses, the starting point is the *potential for fraud* arising from the interaction between crowdfunding and the modern legislation. JOBS Act of 2012 allowed small ventures to marketize their investment plans to the crowd, lowering the minimum requirement for participating in these investment alternatives (Gobble M.A.M., 2012). As a result, crowdfunding could open the doors to potential for fraud, both by projects/ventures unintentionally or intentionally founded for that purpose. Stronger regulatory compliance above consumer protection and empowered ventures' financial disclosure could be remedies to temperate risks arising from weaker requirements to participate in crowd (Sigar K., 2012). From this consideration, a second weakness could be presented as higher *administrative and accounting challenges* for entrepreneurs. Lower credit and capital requirements to engage in crowdfunded opportunities and higher dilution for crowd involvement in Series financing will provide initiators with the need to disclose a higher amount of information and account for a higher fragmented prospect of shareholders. A large base of unsophisticated investors would challenge entrepreneurs not only on administrating them, but also on communicating with them (Kitchens R., Torrence P.D., 2012). Lastly, crowdfunding opens the prospect for *lack of or misleading motivations* due to crowdfunding's internet-based approach. As discussed before, crowdfundees in the crowdfunding arena are moved by different and disparate motivation to invest. Internet, replacing life meetings with virtual engagement, would make even more difficult a full match of incentives between fund requestors and fund lenders (Sigar K., 2012). Moreover, the landscape is exacerbated by the mediation of crowd- intermediaries, whose role make even more worth the reliability and trustworthiness in the decision field. Crowdfunding has been linking millions of people through online or offline platforms since it has been introduced in its archaic form. Even though, the modern literature is divided with regards to the "easiness" for projects or ventures' initiators to provide the idea with the right people willing to fund it. On one side, some think crowdfunding is time and effort consuming in terms of fund finding, ending most of the times with money received just from family or friends. Moreover, providing money on a friendly-based policy, they do not present attitude for hard work and dedication (Stanko M.A., Henard D.H., 2015). On the other side, some authors recognize the potential absence of dedication by the crowd, but strictly link it to the quality of the project and the founders' ability to retain and enlarge the crowd (Mollick E., 2013). All this implies the ability of founders to target that portion of the crowd that more likely will be addicted to the crowdfunding practices and, specifically, to the project. A study from Brabham (2008) identify the general crowdfunding user as a middle to old, middle to upper class, high educated, married white man with high speed Internet connection. Ones the internal view is clearly defined, it is time to turn to the external scene. Crowdfunding is permeated in the funding environment, whose main purpose is that of providing businesses with the money needed to run projects, develop products and services and, finally, serve the consumer base. Crowdfunding is seen as an *economic booster*. Actual legislation (mainly with the JOBS Act in U.S.) is aimed to "cut the ties" and lower restrictions to startups' public capital access, giving odds for emerging companies and job creation (Kitchens R., Torrence P.D., 2012). Ideas proliferation would be in vain without capitals (Sacks 2012). Starting from this assumption, crowdfunding would be able to create new jobs (Sigar K., 2012), incentive long-term economic recovery (Gobble 2012), empower economic development (Kitchens R., Torrence P.D., 2012) and allowing innovations (Shirky C., 2012). "This isn't the side effect, this is really the main effect of improving the startup economy: getting more people to try more ideas, which inherently means more failure. But it also means more experience, it means more surprises, it means lower cost" (Shirky C., 2012). The knot to untangle is understanding the boost crowdfunding would provide to the entire economy and implement legislations such that ideas' supporters and developers will be equally served. Going further, as new technologies and innovations are implemented in our ordinary life, people become more addicted to their usage. Social networks have become mainstream in daily practises, representing an easy way to acquire, gather and elaborate information about disparate issues. In a context of "*information society*", crowdfunding would benefit by bundling traditional platforms with social networks for first promoting projects. The idea is that of starting with "friendly financing" from family, friends or people nearby the initiator and continuing with other external actors from the crowd. Entrepreneur would benefit from this sort of "two-stages" crowd approach because "investment accelerates as the entrepreneur gets closer to the required sum whereby outsiders contribute most funds as opposed to the initial phase where friends contribute the most" (Blechter C., Jentzsch S., Frey M., 2011). Seeing that a good part of the amount to be raised has been already collected would psychologically bias outsiders to consider the high-quality of the investment opportunity, investing in it. Obviously crowdfunding will not substitute at all ordinary investing methods like VCs or private angels. On the other side, the modern literature think crowdfunding and ordinary methods will not overlap but occur at different stages of business life. Stating the relevance small businesses had on economy (Farrell J., 2012), crowdfunding will cover a crucial role in supporting new venture deploying and manifesting their potential and the ideas underlying the core business. This will configure crowdfunding as *an alternative rather than a substitute*. Going on with the threats, it is important to make some inference about the way crowdfunding dealt and will deal with the regulation. The main legislative mechanism aimed to democratize crowdfunding has been the pass of "Jumpstart Our Business Startup" Act a.k.a. JOBS Act by Obama Administration in April 5, 2012 (Powers T.V., 2012). Put simply, JOBS Act main purpose was that of opening the doors of equity-crowdfunding to small investors, under specific rules set by the SEC. The way legislative implementation would be effective on spreading and concretize crowdfunding as a way to collect money for ventures from a broad set of individuals heavily depends on how much regulators will serve the markets through targeted directives, overcoming the hurdle of confining individuals to be just "backer" engaging into projects by donations rather than real investors (Gobble M.A.M., 2012). Moreover, the actual legislative landscape determines "limited capacity" to raise money. Exemplification comes from the JOBS Act, by which the U.S. government limited the maximum amount to be raised at $ 1 million (U.S. Government Printing Office, 2012). The need for crowdfunding openness should be balanced with the "high-risk nature" of businesses benefiting from its implementation. By induction, also crowdfunding configures itself as a "risky practice". Outcome uncertainty about the possibility of ventures and entrepreneurs' disappointing behaviours would be worth for the feasibility of crowdfunding (Sullivan B., Ma S., 2012) generating intricated lawsuit consequences. Moreover, crowdfunding serves initiators with the possibility to *catch* money in an easier way, avoiding any consideration about the human factor innate in venture capitalist other than money, like mentorship, experience, competence, networking (Gobble M.A.M., 2012). The level of riskiness of crowdfunding is further worsened by *intellectual property rights* issues related. The necessity to increase the amount of information disclosed by project's initiators to fulfil the tightening legislation and lack of trustworthiness by the crowd should be adequately weighted with the contingency of having innovative ideas plagiarized or stolen (European Commission, 2014). Initiators should be aware of the accomplishment of legal restrictions but also of the threat of disclosing core proprietary information to potential competitors (Adams L., Constantine D., 2015). IP rights threats would emerge also from the crowd engagement. There are concerns that communicating many information to funders may constitute a failure, barring the initiator from claiming patent rights in the future (Adams L., Constantine D., 2015). Country specific patent systems are significantly different between them, opening different perspectives about whom may be attributed at different stages of development. All this contribute to mess the crowdfunding landscape, where opportunities should be well weighted for the drawbacks potentially arising.

1.4) CROWDFUNDING APPLICATIONS: EVIDENCE FROM THE MARKET

1.4.1) Crowdfunding market analysis

According to a research made by MarketStudyReport named "Global Crowdfunding Market Size, Status and Forecast 2019-2025", the worldwide crowdfunding market is anticipated to accumulate $ 28,77 billion by the year 2025, with a cumulative CAGR of 16% (MarketStudyReport, 2019). Nevertheless, this study focusses just reward-based crowdfunding. A more complete study has been conducted by Statista, highlighting a comprehensive transaction value for 2020 of $ 8,537 billion with a total number of campaigns of 10.940,3 thousand. The analysis predicts crowdfunding transaction value will continue to grow until 2023, but with progressive lower pace across years, passing from 23,3% growth in 2020 to "just" 7,8% growth in 2023. 2023's forecasted markets size will be equal to $ 11,986 billion in 2023 (*Figure 2*). Equally, number of campaigns will stabilize at the end of the forecasted period. If number of campaigns has more than doubled during the period 2017-2020 (going from 5204.7 to 10940.3 thousand), the forecasted CAGR for the period 2020-2023 will be 3,37% (Statista, 2019) (*Figure 3*). In the opposite direction, it is expected an increase of the average funding per campaign, going from $ 780.000 in 2020 to $ 994.000 in 2023 (*Figure 4*). Better education for younger population, startup inception among millennials, accomodating government policies, improved global economy and higher disposable incomes will allow the crowdfunding market to grow; specifically, crowdfundees will be willing to invest a higher amount per each projects, giving much attention at the personal process of due diligence before investing. This will be supported by the a 17,5% increase of GDP per capita for the targeted population, passing from $ 12.787 per year (2020) to $ 15.026 per year (2023), and 12,3% increase for internet penetration, representing the share of the total population in the selected region using the Internet, passing from 60,2% in 2020 to 67,6% to 2023 (Statista, 2019). Going through the geographical distribution of total transaction value, "first of the class" is China, accounting for almost 83% of the whole market (with a monetary transaction value of $ 7,049 billion); the second place is reserved for US, with $ 782 million accounting for 9% of the market; the third place is for UK with $100 million accounting for almost 1% of the whole market. In general, Central and Western Union transaction level assess around $ 296 million (3,46% share). Other countries account for derisory portions of the entire market. (Statista, 2019) (*Figure 5*). This for what concerns reward-based crowdfunding. Going forward with equity-based crowdfunding, it presents a total transaction value in 2020 of $ 5,800 billion with a total number of campaigns of 51,5 thousand. Transaction value is expected to grow at an annual CAGR of 11,4%, leading to a total amount in 2023 of $ 8,014 billion. (*Figure 6*) The number of campaigns is expected to totally grow of 24,27%, passing from 51,5 thousand (2020) to 64,5 thousand (2023). This will be symptomatic of a slower pace compared to the period 2017-2020, during which the number of campaigns grew of 34.46%, following the same trend of reward-based crowdfunding (*Figure 7*). Highlighting the greater attention investors are putting into the crowdfunding landscape, the amount invested per campaign is going to rise, even though at a slower pace, passing from $ 112.615 to $ 124.208 (*Figure 8*). In nominal terms, it is possible to figure out that reward-based campaigns generally are able to attract more capitals. This is due to the higher risk involved in equity-based investments, were the uncertainty linked to the final output would require higher investors' compensations. Geographically, it is possible to show an inverse trend with respect to the reward-based analysis. Central and Western Europe hold the primacy with a monetary transaction value of $ 1,711 billion, equivalent to a 29.5% market share; second and third places are covered by Eastern Asia and Western Asia, respectively with 23,32% ($ 1,353 billion) and 20.84 % ($ 1,209 billion) market share. Relevant in terms of market share is also the Northern America market, with a monetary value of transaction of $ 0,967 billion accounting for 16,67%. It is deducible from the analysis that the equity-based crowdfunding market is way more "balanced" and "fair" compared to the reward-based one, where transactions are mainly concentrated in Asia (*Figure 9*). The analysis proceeds with lending-based crowdfunding. Lending-based crowdfunding is a market accounting in 2020 for $ 219,103 billion with a total number of loans provided of 41,797 thousand. Transaction value is expected to grow across the forecasted period 2020-2023 at a CAGR of 9,8%, ending with a final amount in 2023 of $ 290,135 billion. CAGR for the forecasted period will be way lower compared to the period 2017-2020, growing at a CAGR of 26,49% (*Figure 10*). The same trend will be followed by the total number of transactions (loans), increasing in nominal terms from $ 41,797 thousand in 2020 to $ 50,671 thousand in 2023, with a CAGR of 6,69% (compared to 9,89% during 2017-2020) (*Figure 11*). Even though, the average funding per loan will increase from $ 4.829,3 (2020) to $ 5.726 (2023) (*Figure 12*). Following the trend seen for equity-based crowdfunding, the primacy will be hold by Eastern Asia, accounting for 81,48 % of the whole market, with a total transaction value of $ 178,522; the remaining part will be divided between Northern America ($ 7,813 and 3,57%) and Central and Western Europe ($ 4,054 and 1,85%) (Statista, 2019) (*Figure 13*). Obviously are considered out-of-scope in lending-based crowdfunding traditional bank loans and business-to-business credit services. Data on donation-based crowdfunding are more difficult to gather and process, since the voluntary nature of the phenomenon. Nevertheless, the study tried to make some inferences starting from the "macro-picture" of the landscape. Latest data available on the crowdfunding market identify a market rapidly growing, with a total market size of $ 358,275 billion, comprising equity-based crowdfunding, reward-based crowdfunding, donation-based crowdfunding and P2P consumer lending and P2P business lending (P2PMarketData, 2019). Since, from the analysis previously considered, reward-based, equity-based and lending based account totally for almost $ 233,44 billion at 2020, it is quite feasible to consider that donation-based crowdfunding has a global market size of almost $ 124,835 billion (*Figure 14*). Making a world overview of the crowdfunding's share of volume among countries, China hold the lead of the ranking.

With a market volume of $ 325,25 billion and a market share of 85,99%, it is by far the largest crowdfunding in the world. The real increase in crowdfunding demand, mainly for P2P lending, must face the need for a strict and enforced government regulation. U.S. has a global market share of 10,27% and an Americas' market share of 96,5%, dominating this market with a funding volume of $ 42,8 billion. Further attention should be put on the Latin America and Caribbean countries, who had more than doubled their transaction levels since 2013. European market is more fragmented; even though, UK is placed firmly as the first European player and third globally with a total market share of 1,88% globally and $ 7,85 billion value. Other mentionable European countries in the crowdfunding market are France ($ 0,73 billion), Germany ($ 0,66 billion), Netherland ($ 0,31 billion) and Italy ($ 0,27 billion) (P2PMarketData, 2019).

1.4.2) Main players

Having meticulously examined the crowdfunding global prospect, it is opportune to go deeper in the process looking at which are the main players in the market worldwide. Kickstarter is one of the biggest names one it comes to crowdfunding. On Kickstarter, it is possible to fund creative projects in various categories like Art, Design, Games, Fashion, Music, Film and Videos and so on (Jeanne P., 2012). Since its inception, the company raised more than $ 4,9 billion with almost 179.990 projects since its inception in 2009 (Kickstarter, 2020). It is positioned as a reward-based crowdfunding platform (Huhtamaki J., Lasrado L., Karkkainen H., Jussila J., Menon K., 2015). A project initiator willing to start a campaign on Kickstarter pitches his project linking a description and a video describing the main features. Before starting raise money from the crowd, the initiator's campaign must be approved by Kickstarter (Nguyen S., 2019). Each project should have a target goal and a projected "end date" by which the goal must be reached. It works on a "all-or-nothing" principle: the creator will not get the money unless the "target amount" is reached (Nguyen S., 2019). The fee to be paid by the creator is 5% on the top and 3% to 5% for each transaction (Kickstarter, 2020), if the project is successfully funded. Kickstarter is one of the platforms with the lower rate of "missed delivery" to creators: a median value of 9% ranging from 5% to 15% (Mollick E., 2015). Success rate is nearly 37,45 % (Statista, 2019). Indiegogo is an American reward-based and donation-based crowdfunding platform (Huhtamaki J., Lasrado L., Karkkainen H., Jussila J., Menon K., 2015). With more than $ 1 billion raised on 650.000 projects and a success rate of 18,98% (Indiegogo, 2020), it allows users to create campaigns especially for tech innovations, creative works and community projects. It presents many similarities with Kickstarter, except the possibility to work exclusively with a "all-or-nothing" model (Nguyen S., 2019). Beyond funding services, it provides to customers partnership and support, cutting-edge tools and flexibility and worldwide reach (Indiegogo, 2020). Users on the platform can choose between two options: fixed and flexible funding. In fixed funding the creator set a target goal; if the amount is reached the funding are delivered, otherwise not. In flexible funding, creators would benefit from any funding provided (Nguyen S., 2019). As for Kickstarter, is valid the rule of 5% on top of the project, while the "variable fees" correspond to 3% and 30 cents per transaction (Huhtamaki J., Lasrado L., Karkkainen H., Jussila J., Menon K., 2015). These amounts are valid just for fixed campaigns that reach the target and flexible campaigns (Nguyen S., 2019). Going ahead, Patreon is particulary suggested for digital content creators like YouTubers, podcasters and blogger, working best with people that regularly share work on their personal platform (Nguyen S., 2019). In fact, differently from the previous platforms that work on a "all-one-time" funding, Patreon is presented as a monthly subscription platform where supporters and donors provide regular monthly contributions, for as a little as $1 to higher amounts (Deckers E., 2020). It is sort of a donation-based crowdfunding platform. With monthly active patrons of 4 million and monthly active creators of 100.000, an average pledge size per "patron" of $12 and a total amount paid out to creators of $1 billion (Smith C., 2020), it is positioned as the one of the largest crowdfunding website (Nguyen S., 2019). Patreon collects 2,9% and 35 cents for each pledge on the platform. One downside of Patreon is that it does not reserve a specific creator's space on the platform, differently from other platforms where initiators have dedicated pages to spread their creations. GoFundMe is mostly used for personal emergencies and charitable causes (Nguyen S., 2019), but can be used by businesses as well (Deckers E., 2020). Recently, GoFundMe has been largely used to provide support to "anti-Covid 19 campaigns" all over the world, mainly to hospitals realization in most affected areas (like Italy or Spain) (GoFundMe, 2020). Working without a "all-or-nothing" model and collecting a 2,9% processing fee and 30 cents per each donation (Nguyen S., 2019), the platform has funded several successful campaigns like Las Vegas Victims fund with $ 31,5 million (Sanchez L., 2018) and Time's Up Legal Defense Fund, bringing more than $ 22 million for victims of workplace sexual misconduct (Testa J., 2018). To reinforce his social mission, GoFundMe acquired CrowdRise to expand the fundraising for charities in 2017 (Lunden I., 2017). Statistics notifying the relevance of GoFundMe on the crowdfunding spectrum are a 50 million donors base, $5 billion raised since inception through 2 million campaigns, and $4 million collected daily (Smith C., 2020). Other relevant names in the reward-based and donation-based landscape are Pozible, Crowdfunder UK, Vision Bakery, RocketHub. Focusing on lending-based crowdfunding, the top of the class is Lending Club. Specifically, Lending Club's function is that of representing a valid alternative to banking loans. It provides to borrowers the possibility to borrow up to $ 40.000 for personal loans and up to $ 300.000 for business loans and (Nguyen S., 2019), providing an investors' reward between 5,5% and 7,7% as creators repay loan and interests (Deckers E., 2020). Borrowers could get loans with 1- to 5- year term and interests rates depending on credit scores (from 9,17% to 35,71 %). Participation is underlined with stringent requirements, like at least one year in business, $ 50.000 in annual sales, no recent bankruptcy or tax liens and ownership at least of 20% of the business run (Nguyen S., 2019). Others lending-based crowdfunding platforms are Funding Circle, Zopa, Rate Setter and Thin Cats (Crowdfunding Playbook, 2020). To come full the circle, it is time to overview the main equity-based crowdfunding platforms. At the top of the list there is AngelList. It is presented as a crowd labor marketplace, where individuals can apply for more than 60.000 startups in one click, also working remotely (Deckers E., 2020). By the way, what makes AngelList popular in the crowdfunding show are the three funding ways to invest in companies. Deal-by-deal investments allows investors to pool under the guidance of a lead investor (generally a VC) to invest in a specific company. Individuals can contribute with a minimum investment of $

1.000 and the average check size is $ 200.000 to $ 350.000 per deal. The second possibility is investing with a minimum of $ 100.000 through the "AngelList Access Fund" in specific individual deals, obtaining assistance in due diligence. The last form is reserved for professional investors that can cover single investments of $ 500.000 at once through AngelList representatives (Martucci B., 2020). CircleUp is mainly for consumer investors in the technology, fitness or food and beverage industry. Having helped raising $ 260 million for almost 200 startups, it provides both equity capital and credit financing (Nguyen S., 2019). CircleUp provide investors with due diligence over the companies listed and always updated funding campaigns, signalling those that are actively on stage. As Kickstarter, CirleUp is a "all-or-nothing" model platform. An investor can either invest in the platform by "direct company investment", acquiring shares of the company directly through the platform, or "circles", through which the company identify a professional investor within its network leading and pooling investment from multiple funders into a dedicated portfolio of companies. The minimum investment amount is set by the quoted companies, typically around $ 1.000 (Martucci B., 2020). Other lending-based crowdfunding platforms to be mentioned are Fundable, Crowdfunder, EquityNet and Wefunder. Trying to understand which are the sectors in which mainly crowdfunding is applied, inferences about main companies' statistics can be made. Looking at Kickstarter, the main projects' categories funded by the platform are Cinema and Video (15%), Music (12%), Games (11%) and Editorial (10%). Apart from artistic categories, projects are funded in several different areas like Technology (9%), Design (8%) and Food (6%) (Kickstarter, 2020). Focusing on AngelList equity-based crowdfunding companies, over the 5.113.850 open projects funded by the platform, the main categories displayed are E-commerce, Education, Software, Games, HealthCare and Mobile (AngelList, 2020). Beyond the mainstream areas of Technology and Innovations and Arts, different and disparate are the application areas of crowdfunding. In the next chapter the analysis will be focused on the "Real Estate" industry, trying to breakdown the industry characteristics, stakeholders interested and crowdfunding applications and implications for the market.

2) CORWDFUNDING IN THE REAL ESTATE MARKET

2.1) WHAT IS THE REAL ESTATE MARKET?

2.1.1) Definition and main classification

The "Real Estate Market" is the market in which the sale's object between a buyer and a seller is the exchange of any kind of real estate properties, like houses, lands, business premises, etc. (Woychuk I., 2013). In other terms, the Real Estate market is composed by any real estate good that could be the object of a financial transaction between two or more economic parties. The Real Estate market could be divided in two segments: "rentals", whose object is the sale of the right to use a real estate good; "properties", whose object is the full acquisition of a real estate good's cash flows. (Biasin M., 2005). When planning a real estate investment one of the most important considerations is identify the investor's condition, so which is his risk-return target. Stating that, a difference between "Private Real Estate Market" and "Public Real Estate Market" arise. With a "Private Real Estate Investment" the investor acquires the right over one (or more) real estate property, owning and managing the good (personally or by a third party) acquired and gaining the cash flows generated by the investment (rents or capital gains). With a "Public Real Estate Investment" the investor take part to the real estate market transactions buying or subscribing quotas of a Public Real Estate Company. A typical example is REIT or "real estate security". A Real Estate Investment Trust (REIT) is a company owning and typically operating real estate which generates income. Most REITs specialize in a specific real estate sector; however, diversified and specialty REITs often hold different types of properties in their portfolios. One benefit of REITs for everyday investors is that they provide the opportunity to own a portion of real estate which generates dividend-based income (Cacciamani C., 2012). Subscribing "real estate securities" means investing in companies that buy real estate goods and manage them for the investors, gaining a dividend for the cash flows generated by the investment (this dividend represents also the value change of the real estate during the period) (Bond S.A., Glascock J.L., 2006). Another discriminant is the distinction between equity investment and debt investment. When investing by debt, literally the investor is borrowing money to the buyer of a real estate, receiving in exchange a cash flow composed by interest payments over the capital borrowed and a "security tax". When investing in equity, simply individuals are becoming proprietary of part of the real estate. Debt investors assume a risk equal to people investing in bonds; equity investors assume a risk equal to people investing in shares (Woychuk I., 2013). The Real Estate Market can be also classified based on the real estate "intended use". Further, distinction between "residential market" and "commercial market" can be proposed (or "non residential market") (Biasin M., 2005). "Residential market" represents the market characterized by the buy and selling of residential real estates. Residential real estate are properties (mono-familiar or multi-familiar) for living or, in general, for non-commercial purposes (Biasin M., 2005). "Commercial market" represents the market characterized by the buy and selling of non-residential real estates. This segment (generally named as "real estate market") is composed by real estates whose nature allows the owner to gain by the rents collected. In turn, commercial real estates could be classified based on their activity sector, distinguishing within apartments, offices, retail shops, discounts, hotels, factories.

Finally, real estate properties could be ranked considering real estate's dimension and characteristics, since these can influence the level of the investment's risk and return. Generally, the distinction is between "institutional quality commercial properties" (or "core properties"), so properties with a high market value or unitary value and generally bought by institutional investors, and "non-institutional properties" (or "non-core properties), so properties with a lower market value (Biasin M., 2005).

2.1.2) Real Estate cash flows and relevant factors

When investing in a real estate property, the focus should be not only on the aesthetic characteristics of the property, but also on its ability to generate income and revenues. In fact, whenever considering direct investment on a rental property or direct investment through market securities (like REITs), a real estate is considered profitable in case it can attract tenants willing to pay periodic rental charges on a timely and effective way (Cambon B.R., 1989). The main issue is that (as for all types of investments) not all the real estates are able to generate income in the same way; the investor should be able to assess all the potential strengths and threats of the specific investment. A correct evaluation of a real estate's potential cash flows, as for other types of securities, is crucial to ensure the creation of surpluses to be re-invested in new projects (Fisher J.D., Goetzmann W.N., 2005). With respect to a real estate investment, the cash flow composition is significantly affected by:

a) rental fees

b) management fees (taxes, insurance, maintenance, etc.)

c) capital expenditures (roof replacement, heating systems installation, etc.)

d) mortgage payments

e) payment of Income Tax

f) others

Since each of the elements above mentioned contribute to the value created by a real estate investment, the way these factors are managed seem to be essential in evaluating the profitability of a specific property. The starting point of assessing cash flows generated by a real estate is the "Gross Rental Income", defined as the rental fee a property owner can define considering the market trends and full occupancy of the real estate for the entire time frame supposed. Stating its characteristics, "Gross Rental Income" is a misleading proxy of a real estate profitability, not accounting for "potential of vacancy" (possibility of rental failure during the time frame) and "earning losses" (possibility of tenants not paying the rental fees agreed). Gross Rental Income is approximated as the value for similar rental properties in the reference market. This could be misleading for the time of evaluation. All these factors make "Gross Rental Income" an unreliable index of profitability for a real estate investment (Carson C., 2017). A more trustworthy measure of a real estate profitability is presented by "Net Operating Income", considered as the income produced after accomplishing for all the property's ordinary expenses (Carson C., 2017). "Total ordinary expenses" is composed by different elements, particularly:

a) Vacancy: the expectation of a real estate investor is that of renting the property each month, without any empty spot. Sometime, this expectation is unrealistic. The time between a contract expiration and the occupation by another tenant represent the idea of "vacancy". A real estate "vacancy" could be affected by different elements tailored based on the specific property, for example the time necessary to make the real estate habitable for new tenants, marketing activities and real estate demand trends (Kimmons J., 2016).

b) Credit Loss Reserve: it represents the case the tenants will not pay the rental fee agreed. Beyond not collecting the rental fees for the time needed until the defaulting tenant's eviction, the legal procedures require efforts in terms of time and money. The owner can protect himself using the law or verifying the "credit rating" or "creditworthiness" of potential tenants (Kimmons J., 2016).

c) Management Fees: sometimes the owner does not directly manage the real estate property, but "delegate" its management to a third party, better known as "Property Management Company" or "Real Estate Management Company". This third party will provide the owner with a series of services like managing relationships with tenants, collecting rental fees, real estate maintenance, managing legal disputes. The drawback of using a Property Management Company is represented by the fee imposed. On the owner part, it is important to weight the fee imposed with the advantages potentially arising, like (higher knowledge of real estate market and higher efficiency) (Wegener K., 2017).

d) Property Taxes: it is defined as a "ad valorem tax", computed on the real estate value; this value is not identified as the "market fair value", but based on an accurate estimation made by a professional estimator. The Property Tax determination is made by the fiscal authority of competence, communicating periodically the amount to be paid and the variation in the property value (Tsoodle L.J., Turner T.M., 2008).

e) Maintenance and Repairs: to ensure an optimal service, the owner (or the Property Management Company) will face during the property life cycle periodic maintenance and repairs, preventive or on going, consisting on disparate types of expenses, like repairing the hydraulic system or good conditions of building materials (Kimmons J., 2018).

f) Utilities: it corresponds to the cost of services offered to the tenants but to imputable to him/her. Examples could be quotas of expenses for water, light, heating system, wi-fi, telephone system, etc. (Pfnur A., Armonat S., 2013).

g) Other expenses: in this category are present all those expenses that do not fall within the previous ones, like for example licences.

Net Operating Income represent a good starting point in evaluating the effective profitability of a real estate property. Even though, a more accurate measure of the profitability is identified as CFO (Cash Flow From Operations). The main difference between the two is that CFO accounts also for "Capital Expenditures", representing all those expenses incurring for perishable goods/services linked with the property, like air conditioning, heating system, roof repairment, etc. These costs are not irrelevant on assessing the real estate profitability. For this reason, the investor account for them by creating a dedicated reserve called "Capital Expense Reserve" (CER), generally reserved to long term investment capital expenditures (Carson C., 2005). After accounting for ordinary expenses and capital expenditures, to define the revenues arising from a real estate investment it is necessary to consider the "cost of financing"; often investors do not have all the money required to invest on a specific property, so they borrow money from third parties. This allows to compute the "Cash Flow After Financing" (CFAF), even though the difficulty sometimes in calculating the true cost of financing (Pfnur A., Armonat S., 2013). Subtracting the potential "expense deductions" like "depreciation expenses" and "interest expenses" from Net Operating Income (Kimmons J., 2017) and applying the "fair tax rate" it is possible to compute the "Income Tax Liability" and, so, the "Cash Flow After Taxes" (CFAT), the real index of a real estate profitability (Carson C., 2005).

As introduced above, aesthetic factor is not enough to ensure investment on a rental property. Being honest, neither aesthetic factors nor ability to generate cash flows are enough in explaining investors attitude to use their money in the real estate market. The evolution of Internet and the advent of "information technology" are heavily shaping the way value is delivered to tenants and the way revenues are caught by investors (Jud G.D., Winkler D.T., Sirmans G.S., 2002). A complete analysis of the Real Estate market cannot prescind from considering the main innovations introduced in the market, both at an organizational level and at a real estate level. Assessing how, and to what extent, information technology and analytics are leading investors in making more reliable and informed investment decisions would be crucial on catching high risk-adjusted returns, pursuing in the meanwhile market equilibrium.

2.2) NEW TECHHNOLOGIES IMPLEMENTATION IN REAL ESTATE

2.2.1) From "Innovation identification" to "Innovation implementation"

The Real Estate industry could be presented as a heterogeneous combination of stakeholders, where different types of producers, partners, investors, and tenants are brought together in different projects and different production processes. The total number of stakeholders engaging in real estate process has been gradually increasing, easily facing situations in which more than 100 stakeholders are involved in the process of finishing a project (Sorri J., Kahkonen K., Rannisto J., 2013). Since innovations are "processes that translate ideas or inventions into goods or services that create value of for which customers will pay" (Trott P., 2008), in the Real Estate field it is important to account for the interests of different stakeholders involved in the process. Real Estate innovations are typically systemic (Afuah A.N., Bahram N., 1995), become integrated with pre-existing systems or products or to renew them (Taylor JE., Levitt R.E., 2004). Some of the research topics on Real Estate to successful innovation diffusion and implementation (Slaughter E.S., 1998) are:

a) Systemic impact modelling: explanation of value-added and costs arising for different categories engaging in real estate projects;

b) Extent analysis: to which extent the construction innovation can be translated from small niches to the overall industries, reaching the required critical mass;

c) Implementation of required changes in whole network of partners: preliminary assessment of implementation effects on stakeholders of other sectors;

d) Definition and implementation of new processes: clearly definition of principles and steps for new processes;

e) New competence and skill profiles: new construction innovations require new profile, professionals and set of skills to be implemented; understanding competences required will be crucial in identifying best-fit solutions.

Shifting from "real estate innovation identification" to "real estate innovation implementation", cooperation between stakeholders is fundamental to knowledge development and diffusion, potentially impacting heavily on the entire system (Koukkari H., 2014). Knowledge management and cooperation is crucial not only to "external stakeholders"; companies should develop an explicit management process of innovation knowledge, integrated within company's function (Vesa M., 2014).

A study conducted by Deloitte (2020) highlighted the commercial real estate investors' growing preference for companies investing in technologies to make buildings "future-ready". The analysis of investors preferences cannot prescind from considering how tenant experience is changing over time. User experience-related technologies able to thrive the real estate industries are *digitization, data management, Artificial Intelligence, Digital Reality, Privacy and Cybersecurity*.

2.2.2) Digitization

The on-demand or "sharing" economy defines digital platforms that connect consumers to a service or commodity through the use of a mobile application or website, promoting explicitly transactional user-interaction (Zervas G., Proserpio D., Byers J.W., 2014), also cited as "gig economy" (Gregg M., 2015) or "collaborative commons" (Rifkin J., 2014). Examples to simply have in mind this phenomenon are Uber, Lyft, Aribnb. Technology enabled services means provide customers, employees and management with higher benefit potential services (Bitner M.J., Brown S.W., Meuter M.L., 2000), with additional or extended services, greater convenience and control, more reliable information, broader data access, support, remote visit for transaction (Brown S.W., 1997). Together, on-demand economy and technology enabled facilities are reshaping tenants demands and Real Estate industry, increasing the level of competitiveness on service efficiency and rate of tenant retainment. Real Estate executives firmly believe IoT tech, mobile apps and environmental technologies could improve tenants' experience; even though, only 64% of them invested in tenant experience-related technologies and just 46% consider these investments as "core". The Internet of Things (IoT) is presented as "the pervasive presence around us of a variety of things or objects which, through unique addressing schemes, are able to interact with each other and cooperate with their neighbours to reach common goals (Giusto D., Iera A., Morabito G., Atzori L., 2010). Many companies in the retail industry are implementing IoT to increase customers' engagement. Ralph Lauren implemented smart-mirror fitting rooms thanks to technology platform Oak Labs in its Manhattan Fifth Avenue's flagship store, recognizing items clients brought with them in the fitting room, displaying them on the high-intelligence screen, suggesting different available colours and sizes or recommended products. The fitting-room experience is linked outside by a “call an associate” button, connecting to a salesperson to request him. The ability to “connect emotionally and digitally to consumers” allowed Polo to increase the engagement rate of 90% (Milnes H., 2016). Adroit Worldwide Media (AWM) Smart Shelf is a cashless shopping technology, allowing for recipe uploading to AWM’s powered app than guiding you around the shop, using high-definition cameras and AI to automatically keep track of what people purchase and displaying the inventory level on shelfs (Albrecht C., 2019). Caper Lab allows for a smart self-checkout cart powered by Amazon-GO’s AI; customers pick items, scan the barcode, drop item in the chart and pay directly on the cart when shopping is done (Thomas M., 2020). So many others are the examples findable, identifying the IoT-enabled retail market as a segment potentially worth $94 Billion by 2025 (Thomas M., 2020). Companies’ executives from real estate believe implementing IoT-enabled and user-experience technologies to building would allow for a chargeable premium of 6-10%. A key role in creating tenant and end-user experiences is played by apps, smartphones and tablets, with interviewed paying attention to services like light and room temperature control, so environmental issues (58%), safety and support services (55%) and building access (49%). Managing these features could be crucial to Real Estate companies in making user experience-based and high-technology implementations core for real estate activities. Executives expects smart building become mainstream over the next 2-5 years, assisting location in Commercial Real Estate companies’ decisions, with 21% of executives believing smart building features will surpass location in tenants’ leasing decisions. Rising urbanization, large-scale investments in new technologies and greenfield developments will be main driver of smart building investments, with 54% of interviewed planning to increase the extent of their investments. Implementation progress by Real Estate companies will be progressive, starting from small changes like smarter systems for energy, security and parking and little by little going to more sophisticated services like occupant behaviours data analysis and predictive capabilities. Users’ and tenants’ preferences will be tracked by simple, intuitive and interactive app, with the global mobile app market expected to grow at a CAGR of 17% between 2018 and 2023, reaching a total value of $ 156 billion (Sensor Tower, 2019). Unique experience will be supported by IoT integration within the apps. It is important now to investigate how the “things” in IoT generate “Big Data” in the context of Real Estate.

2.2.3) Data Management

Big Data consists of a set of three “V-words”: volume, velocity and variety. Volume indicates the increasing amount of data delivered over traditional systems. Velocity indicates that information is generated at a rate that exceeds those of traditional systems. Variety indicates the presence of multiple sources of information being interesting for enterprises (Zikopoulos P., Eaton C., DeRoos D., Deutsch T., Lapis G., 2012). Further, the concepts of veracity and value have been added to Big Data. Veracity represent the accuracy, truthfulness and reliability of the data. Value represents the potential for Big Data to provide a beneficial addition to an enterprise’s portfolio (Zikopoulos P., DeRoos D., Parasuraman K., Deutsch T., Corrigan D., Giles J., 2013)

More specifically, “Big Data” accounts for the expanding amounts of digital information generated, the efforts to make that data usable to improve productivity, improving innovation generation and decision-making. The IoT generates Big Data for several reasons: volume of data delivered through sensors is substantial, allowing for higher information capture and velocity; the network effect would allow for data and sensors expansion, increasing the variety of information delivered. Combined, high volumes, coupled with higher velocity of data, along with increased variety, clearly define the IoT’s push to Big Data. Real Estate companies have not yet fully understood how to capture and use this information for decision-making and operational improvements; almost 60% of Real Estate executives state that their organizations are not capturing data from IoT sensors (Deloitte, 2020). There are two main reasons: confusion about “who owns the data” and unclear regulatory landscape. Data are what one uses to provide some information; the context and usage provide meaning to data constituting information (Wigan M.R., 1992). Where there is no value, there is no matter for data ownership. Talking talk about data ownership, it is unavoidable talking about data storage. Data acquire value ones moving from raw data, to insights and then transaction level, at which data transform into information thanks to competition of end-to-end business processes (Banerjee S., Bolze J.D., McNamara J.M., O’Reilly K.T., 2011). Nearly two-thirds of respondents think the building owner/developer is the data owner, the remaining don’t know (Deloitte, 2020). In this context, businesses’ risks and liabilities could exceed potential returns of data (WEF, 2011). Moreover, governments play an active role in advancing policy frameworks to protect personal data from unlawful processing (Robinson N., Graux H., Botterman M., Valeri L., 2009); GDPR restricts organizations from using individual data. As the dispute between “private companies’ ownership for competition and “growth” and “government protection for citizens’ privacy rights” will spread (Manyika J., Chui M., Brown B., Bughin J., Dobbs R., Roxburgh C., Byers A.H., 2011), Real Estate executives should increase awareness about data management and the best way to leverage it, developing practices and platforms. A flexible data governance framework would resume them, clarifying roles, responsibilities and procedures. Key drivers will be recruiting talented persons to manage data governance activities, enhance clarity and transparency on data among parties, develop a meaningful “data dictionary” and define the proper technologies (cloud, BI and AI technologies) based on quantity and quality of data they want to capture or use.

2.2.4) Artificial Intelligence

Artificial Intelligence is a branch of computer science, studying the relation between computation and cognition. Precisely, it refers to the ability to perform the intelligent functions of the human brain. (Barr A., Feigenbaum E.A., 2012). The use of AI is progressively extending into the social sciences, including real estate. AI can express in different forms, like Reactive Machines, Artificial Narrow Intelligence, Artificial Superintelligence, Natural Language Processing. AI techniques could represent an added value for real estate experts and operators in forecasting future market development, demand, offer and forward developments. In the past literature numerous suggestions have been provided to AI Real Estate implementation, like rule-based reasoning (Scott I., Gronow S., 1989), case-based reasoning (O’Roarty B., Patterson D., McGreal W.S., Adair

A.S., 1997), and neural network (Borst R., 1995). Generally, the emphasis has been on data mining from a large property transaction database. First knot to untie is to increase executives' awareness about AI's benefits for the industry; just 40% of interviewed by Deloitte believe AI can benefit Real Estate development (Deloitte, 2020). The second is understanding at which different process' level AI should be implemented. Cases of implementation are different and disparate: use cameras to track workers' and equipment's' movements during work hours evaluating construction progresses (Indus.ai, 2020) or impact property valuation forecast, using machine learning helping retail selection (LocateAI, 2020). AI implementation in Real Estate would benefit executives automating redundant tasks, managing data collected through IoT and using them to increase tenants' experience. Data collected through IoT, apps, Digital Reality would be useless without the right interpretation. AI could support the evaluation of diverse set of information, breaking down and restructuring them to make forecasts and scenario-based analysis on customers' lease decisions. AI would assist modernization of the entire industry; higher administration automation will result in lower costs for companies, opening for more flexible lease contracts, with higher preferability for tenants (almost 60%) (Deloitte, 2020). Further, advanced AI can automate tenant services like invoice processes, also detecting duplication and potential for fraud, or provide solutions to connect different leases and property with building sensors. AI would provide Real Estate companies with higher revenues stream diversification. As competition in the market increases, companies will profit by selling data collected to advertisers, "pay per use of data" or subscription fee models. Common thread is strengthening relationships with customers (Day G.S., 2000, providing them with a wider range of services and experiences within the location. WeWork bought in 2019 Euclid, expanding its business plan from selling co-working space to members to configuring itself as a "software-as-a-service provider. Euclid's technology would allow customers to know when a conference room is booked and who will attend the meeting, making WeWork as an "analytics platform for space", selling booking software combined with Wi-Fi-based analytics monitoring the movement of people inside the building (Loizos C., 2019). AI implementation does not miss challenges. Skilled experts' identification, dependents reskilling and retooling and redundancy avoiding are some of them. 63% of Real Estate executives are planning to use it in the future; competitive advantage could be achieved my predicting the market evolution and collaborating with the right technological companies in implementing AI solutions (Deloitte, 2020).

2.2.5) Digital Reality

Digital reality (DR), in the form of Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR), is permeated on the idea of embedding digital information in the real world, representing a step between the virtual reality itself and the real world (Prochazka D., Koubek T., 2011). IKEA develops "Ikea Place", an app using Apple's ARKit Tech, by which users can access 3D preview of more than 2000 different products in every kind of space, reserving the one they want, automatically directing to Ikea site to complete the purchase (Joseph S., 2017). But DR is not only about the consumer market. Companies are also taking off within the

B2B environment. Soft drink leader Coca Cola teamed up with Augment, an AR Developer, to solve a highly diffused problem: when selling beverage coolers, it was difficult to find the best fit among the variety of designs and sizes available. Collaborating with Coca Cola's salesforce department, Augment developed an easy-to-use solution, accessing the full catalogue of Coca Cola's coolers and making it accessible through tablet or smartphone offline, simulating 3D coolers configurations on-site to make more informed decisions (Augment, 2020). For the Real Estate industry, Commercial Real Estate and Macquarie University's Virtual Reality Lab developed Commercial Real Estate AR App, an app allowing users to scan a commercial property nearby and instantly access listing information like office spaces, amenities and tenancy industries located within the building, also working and communication link with the marketing agents (Liu S., 2018). Matterport provide customers with virtual tours for Real Estate properties, linking agents and potential clients with two different VR tours, "Guided visits", offering an immersive experience to clients through VR headsets and fully virtual or 360-degrees videos, or "Interactive visits", virtually visiting a property by clicking on a special hotpots in the field of view (Gleb B., 2020). Even though, the overall adoption rate remains low, with slightly more than 30% of Real Estate respondents currently using DR technologies. But DR technologies should go beyond the virtual tour of an already finished project. Currently, 58% of interviewed Real Estate executives are considering tenant preferences during the predevelopment stage. Tenants' engagement could be empowered by asking tenants support in the development stage, detailing future components like furniture and textures and monitoring progress against plans suggesting modifications (Deloitte, 2020). DR predictive role can booster accuracy and operational efficiency, allowing developers, owners and even tenants to constantly see a visual image of the final plan, reconsidering the overall impact of each element on the building structure. Broader stakeholders' connection and opportunities for personalization are key strengths to be leveraged through DR (Deloitte, 2020).

2.2.6) Privacy and Cybersecurity

As viewed, Information Technology has become one of the main engine driving enterprises' competitive advantage and performance. As public and private entities increasingly rely upon IT to boost productivity, exploiting opportunities, fragilities have arisen. This represents the starting point for a more comprehensive and systematic approach to secure information, called "cyber infrastructure" or "cyber threat management". Challenges identifiable within cyber threat management are different. The amount of data being generated from networking devices is massive, making any sort of human analysis of computation impossible. This would require the implementation of analysis systems with strong and minimum level of reliability, protecting users' data from external parts appropriation (Kumar V., Srivastava J., Lazarevic A., 2006). Real Estate organizations, through IT, have access to an incredible extent of tenants' information, ranging from personal data to in-house behaviours and product preferences. Information dispersion and unfair appropriation require stronger data protection. Third parties' outsourcing of intuitive sensors data management further exacerbate the issue. Data breaches rose more than 50% during the first half of 2019 (Sanders J., 2019). All this would negatively impact properties' valuation, tenants' experience and, so, companies' profitability and operational efficiency. As stated for "Big Data", this would require joint efforts by enterprises and governments in tightening data management regulation. The final result is a stronger regulatory framework both in Europe, with the EU's GDPR, and United States, with the "California Consumer Privacy Act (CCPA) and other privacy initiatives, supported by enterprises development of in-house cyber resilience capabilities limiting customers' data exposure (almost 45% of interviewed executives) (Deloitte, 2020). It is necessary a consolidated awareness in making cybersecurity a strategic priority in the Real Estate environment, breaking down the obstacles potentially arising, like fulfilling the lack of skilled professionals through high speed internal automated processes, substituting third parties outsourcing whenever possible. When it is not feasible, Real Estate enterprises should be able to conduct due diligence on vendors' data governance, IT systems, financial health and regulatory compliance. Further, companies can translate IT weaknesses in efforts, by implementing advanced data access systems like "multi-factor authentication" (MTF). MTF is a way of authentication where two or more independent factors are used as part of the user credentials (Sabzevar A.P., Stavrou A., 2008). Real Estate companies' higher attention and empowered action towards cybersecurity will be fundamental to maintain regulatory compliance and tenants' trustworthiness (Deloitte, 2020). *Digitization, data management, Artificial Intelligence, Digital Reality* and *Privacy and Cybersecurity* are contributing to shift the attention from "Real Estate as a Space" to "Real Estate as a Service". Users are shaping a world where people are less focused on accumulating stuffs or tangible assets and more interested in disposing services, experiences and intangible assets. And Real Estate, as seen, is not immune from this trend. On-demand control of spaces and features, whenever you want and wherever you are, is the future key for the market (Slumbers A., 2017). As the attention shifts, also the mindset should. And as customers' demand rapidly evolve in the market, enterprises and executives must be able to strengthen analytical and predictive capabilities, adapting services to users' needs evolution (Deloitte, 2020).

2.3) CROWDFUNDING IN REAL ESTATE MARKET

2.3.1) From "Real Estate" to "Real Estate Crowdfunding": Historical Steps

Real Estate is considered as one of the more traditional and tangible way of investing. The difficulty to access these investments determined by knowledge of the market, regulatory framework, high disposition of capital and effective information have been blurred across the last decade, making them more accessible to masses. Regulatory modifications and tech advancements have irreversibly shaped investors preferences and investment methods (Realcomm Advisory, 2016). *Digitization, data management, Artificial Intelligence, Digital Reality* and *Privacy and Cybersecurity* (Deloitte, 2020) and the democratization of crowdfunding boom through JOBS Act of 2012 (Powers T.V., 2012) radically disrupted the real estate industry. As crowdfunding is defined as "a form of fundraising, typically via the Internet, whereby groups of people pool money, usually small individual contributions, to support a particular goal (Mollick, 2014), similarly Real Estate Crowdfunding (RECF) is a form of financing in which real estate project developers make an open call on the internet (typically through specialized platforms) to sell a specified amount of equity- or bond-like shares in a company or project, with the aim of attracting a large group of (primarily accredited) investors (Schweizer D., Zhou T., 2017). Going through the history of RECF it is intuitable pulling over this process to that of crowdfunding spreading. Macroeconomic challenges, increased volatility and current market conditions, such as low interest rate environment, are accelerating the allocation to alternative assets for all types of investors (Esposti C., Cinelli S., Carl S., 2015) are assisting shifts to alternative asset allocation like venture capital, private equity, commodities, hedge funds, foreign currencies, derivatives and, finally, real estate. Historically, Real Estate investments have been attractive for investors, compared to other types of investment, for many reasons. Firstly, Real Estate market can be reached through two different modes of investments: direct (or physical) and indirect (or securitized or financial). Direct real estate investment assumes the activity of buying and managing a physical property; indirect real estate investment involves buying shares of real estate investment companies (e.g. REITs) then traded on financial exchange (Ziering B., Taylor L., 1998). Both direct and indirect investments via Real Estate offer competitive risk adjusted returns. Normality of real estate returns is rejected both for direct investments (Young M., Graff R., 1995) and indirect investments (Lizieri C., Satchell S., 1997), highlighting higher than average returns compared to the market. Real Estate investments offer a tremendous diversification benefit, due to low level of correlations with stocks and bonds. A study by Kallberg and Liu suggests that a 9% allocation to real estate is optimal in a portfolio including stocks, bonds and cash (Kallberg J., Liu C., 1996), generating strong gains when introduced in a dynamically managed portfolio (Grauer R., Hakansson N., 1995). Like many other economic fundamentals, real estate industry follows microeconomic and macroeconomic cycles (Phyrr S., Roulac S., Born W., 1999). Macroeconomic cycles include changes in inflation, currency, technologies, demography and employment. In particular, consumption growth, real interest rates, term structure of interest rates and unexpected inflation are risk factors prices in real estate markets (Ling D., Naranjo A., 1997), thereby resulting in Real Estate investments as a hedge against macroeconomic forces. Striving for higher returns, investors will keep pushing Real Estate industry as a desirable asset class and efficient marketplace, where investment will continue to grow with always better portfolio allocation, returns and risk amortization. Even though, all these pros have been difficult to access for some investors, limited from investor status and capital disposition. Under the disposition of Securities Act of 1933, entrepreneurs seeking debt or equity financing through crowdfunding had to sell securities registered under the above-mentioned regulation; moreover, investments were prohibited from being marketed to the general public and allowed only for institutional investors (Bradford C.S., 2012). Restrictions to Real Estate investments related to the nature of the investor started to fall with the introduction of REITs. A REIT (Real Estate Investment Trust) is a company that owns, operates or finances income-producing real estate (Chen J., 2019). Essentially, REITs are corporations, business trusts or similar, that own and manage a portfolio of real estate properties and mortgages. Investors have the chance to earn a share of the income produced through real estate investment without directly manage the property/properties underlying the REIT. REITs can specialize in a specific real estate sector or diversify, holding different types of properties in the same portfolio. (Bagaria S., 2013). Even though, even REITs does not allow investor to pick a specific property to invest in without requiring substantial upfront capital or high-profile industry knowledge. The most important piece of legislation allowing for RECF and, in general, higher involvement of the crowd in the investment landscape (Crowdfunding) has been the signature on April 5th, 2012 of Jumpstart Our Business Startups Act (JOBS Act). Title III of the regulation disposed the possibility for crowdfunded investments, allowing small firms to raise capital without registering with SEC (Powers T.V., 2012); even though, Title II prohibited "general solicitation" to the non-accredited investors, preventing, practically, crowdfunding practices. Just with changes to Regulation D occurred in 2013 the focus shifted from an absolute ban on "general solicitation" to "minimum requirements" for investors. Participation in crowdfunded projects has been opened to "accredited investors", identified by SEC as investors having a net worth of at least \$ 1 million or a yearly income of at least \$ 200.000 for individuals or \$ 300.000 for couples. on the opposite side, organizations raising capitals could target non-accredited investors but always under the solicitation ban, still disallowing crowdfunding. Authorization in May 16, 2016 of Title III allowed full participation in investment crowdfunding, with stringent rules for investors: investors with a net worth lower than \$ 100.000 can either invest up to \$ 2.000 or 5% of his annual income; investor with a net wort of more than \$ 100.000 can invest up to 10 % of his net worth (American Jobs Act, 2012). In Real Estate, individual accredited, but non-institutional, investors generally do not accomplish or have the possibility to access Real Estate investments (Ahlers G.K.C., Cumming D.J., Guenther C., Schweizer D., 2015). To reach the broader range of individual accredited small investors, RECF's developers make a specific open call to sell a specified amount of equity- or bond-like shares in a company or project, with the aim of engaging with the maximum number of possible investors (Lakhani K.R., Hutter K., Friar G., 2014). Finally, RECF relies on underwriting and investing in real estate through dedicated online firms.

2.3.2) Real Estate Crowdfunding classification

Within RECF, projects may be aimed for a variety of services, from raising capitals for proprietary projects to serve as an intermediary challenge for Sponsors. RECF investments can be grouped in two main groups based on the type of "relationship" issued between platform/developer and crowdfundee: *equity RECF investment* of *lending RECF investment*. Lending RECF investments represented much of the early success of RECF (Vogel J.H., Moll B.S., 2014). In it, investor purchase part of specific property through a loan or a pool of loans linked to the specific real estate, with the loan secured by the property until the borrowers repays in full. Debt RECF investors can be classified based on the level of leverage afforded, providing investors with higher returns with respect to the rest of investors (Liu W., Aaker J., 2012). In lending RECF investments, accredited investors would set up a Limited Liability Corporation (LLC), collecting money from each single investor aiming to participate in the project and making a loan to a real estate company in order to realize a specific real estate investment. At the end of the investment period, specifically after the sale, investors will receive the capital plus the interests computed on it. Loans are generally first mortgages maturing in 6 months to 18 months, generally backed by an accredited guarantee from the developer (Vogel J.H., Moll B.S., 2014). Differently from traditional loans, the promoter does not have to associate a mortgage to the property, experiencing a great reduction in costs but, maybe, also a reduction in rights (Stocker O., Sturner R., 2009) RECF platforms currently providing lending RECF investments are Realty Mogul, Realty Shares, iFunding and Patch of Land. Gaining higher acceptance, RECF involved also forms of equity financing for commercial properties and multifamily investments. E*quity RECF investment* is a crowdfunding investment through which small investors acquire a portion of ownership in a property; investors are entitled to a share of the cash flows arising from rents plus a share of the exit value in case of property sale. Stating the "shareholder" nature of the investment (with preferred positions for lend owners) and, so, the higher risk afforded, investors are generally provided with above-average returns (Liu W., Aaker J., 2012). RECF offering equity RECF investments articulate them into a "two step approach": sponsor identification and proper due diligence. Sponsor identification is based on finding a reliable sponsor that has in his career yet raised capital through private syndications. If a sponsor makes it through, they can present deals for potential investment. Once investments are proposed, Web based RECF platform conducts the opportune due diligence through proprietary models, listing just those that survive the process. Listed investments generally are presented with a specific "memo" discussing location, market, financials, assumption, risks and strategy and, sometimes, opportune conferences are organized to introduce the sponsor to investors. In most of equity RECF investments only part of the whole amount necessary is collected through a limited crowdfunding partnership. Once each crowdfundee has singed the legal paperwork, capital collection starts. If the minimum amount set is not reached, the money is given back to investors; if the minimum amount is reached, the investment method could be pooling investor's single contribution into one entity to invest in the property (Realy Mogul, iFunding and Realty Shares) or let investors directly and independently invest in the project (Real Crowd, Prodigy Network, Fundrise). In practice, once investors have granted the amount needed to realize the building, an "ad hoc" corporation is built up, and investors theoretically invest in this corporation receiving back shares of it. The purpose of this corporation is that of managing all issues related with the property financed and, finally, sell it. As consequence, investors will receive returns coming from operating management of the property plus the shares' value ones the corporation is liquidated at the end of the investment period (Baker C., 2015). Other RECF methods are *Real Estate crowdfunding through a REIT (eREIT/iREIT* and *Real Estate Crowdfunding 2.0 through an Initial Coin Offering (ICO).* An iREIT is a digital smart financial real estate Crowdfunding platform making the REITs accessible for anybody to invest anywhere and anytime with a promising return from the real estate market, and without taking the risk of the volatile nature of the stock market (Hu S., 2017). This method is already implemented by platforms like Fundrise and Invesreal. Real Estate Crowdfunding 2.0 through an Initial Coin Offering (ICO) is a way to raise money from individuals using cryptocurrencies running on a blockchain (e.g. Ethers, Bitcoin), eliminating the traditional platform that intermediates in crowdfunding (Fridgen G., Regner F., Schweizer A., Urbach N., 2018).

2.3.3) Crowdfunding Real Estate Platforms common elements

Switching on the RECF platforms and projects, they are still considered as an “innovative approach” within the Real Estate investment panorama. Some key underlying elements should be present in each of them (Vogel J.H., Moll B.S., 2014). Firstly, it is fundamental the platform will be able to spread to the target crowd its value proposition, keeping an eye on the nature and methodology of investment. The platform should not only address the most important elements like which is the investment proposal, what types of properties are included and which is the investment methodology, holding period and how to recover exits, but also promote a direct discussion with the crowd, giving the chance to crowdfundee to ask one each other or to the platform more clarifications on general market trends, legislation occurred, specific aims or goals and inherent risk factors (Esposti C., Cinelli S., Carl S., 2015), generally assuming the form of FAQ pages. For RECF platforms create a solid investor base is not the only important thing; it is crucial to develop and exploit retainment capacity by the platform. Ones the registration process is elaborated through the site, trying to catch the broader range of possible investors (always under the regulative disposition imposed and above mentioned), it is important to leverage on proposed offered materials, assisted by a specific and convincing investing strategy. A key activity is RECF platforms identification of investment opportunities, realizing the opportune due diligence for minimum requirements accomplishment and coherence with site’s values (Esposti C., Cinelli S., Carl S., 2015). Ones offering investment are pointed out, the platform should sell them to the crowd, with an in-depth description of the investment opportunity, linking Sponsor references and property peculiar information (Vogel J.H., Moll B.S., 2014). Informative packages are then displayed on the site or sent to the crowd, who then analyse and decide in which to invest in. After investors pick up which are their preferable projects to invest in, the platform should handle all that matter for the transactions, starting with collecting money from the crowd, passing through disclosure of all needed documents to governmental institutions and stakeholders involved and deal closure. Transaction management should be severely conducted under legislative dispositions enhanced by SEC and concerning crowdfunding form applied peculiarities (Esposti C., Cinelli S., Carl S., 2015). Document disclosure and due diligence represent backbones in the RECF field, extending also for the post-investment period, when crowdfundee should be notified and warned by periodic financial and operating reports. It is of sponsors and platform liability to keep up to date with recent evolutions on the reference legislation (Vogel J.H., Moll B.S., 2014). Revenues generated by RECF platforms can assume different facets and come from different sources: advisory fees, transaction fees, developmental or construction fees, platform usage fees, management fees and carried interests ((Esposti C., Cinelli S., Carl S., 2015). *Advisory fee* represents an upfront fee to make an investment opportunity, ones verified, disposable on the platform; this is generally a “one-time fee”, between 4% and 7% (Episcope M., 2018). *Transaction fee* is an expense occurring each time a customer transaction is processed (Kagan J., 2018); for RECF, transaction fees will occur when investors have screened possible deals and decided in which to proceed with financing. *Development* or *construction fee* is money earned by a person or entity for managing the development process of a project (Episcope M., 2018); in RECF, the Sponsor will compensate itself for the project coordination. Development fees can change according to the project nature and the platform interested: for example, Prodigy Network charge a development fee of 3% on the total project cost in case of development projects (Morri G., Ravetta M., 2016). *Platform usage fee* is imposed over members to access the platform's deal opportunities. Property managers or administrators receive *management fees* (Eberlin E., 2019). *Carried interest* represent the most significant part of a real estate manager's expected incentive compensation. Commonly, carries are paid to managers ones each investor's capital contribution is paid off (make-whole provision) and computed on residual fund profits (Marrs N.M., Hellebusch L.D., Das K., 2009). Beside revenue stream generated, is should be relevant to highlight also cost savings arising when comparing to traditional Real Estate platforms. Firstly and mainly, the direct involvement of the crowd in the investment process allows for reduction of intermediaries figures in the whole transaction. Each middleman eventually introduced between the Real Estate platform and the investor would charge a cumulative fee accounting for development, transaction and management activity. By cutting intermediaries and marketing directly small investors would enhance higher risk adjusted returns for crowdfundee. Moreover, cost savings would also arise from standardization and automation of due diligence process and regulation needed documentation (Esposti C., Cinelli S., Carl S., 2015). This standardization process is fundamental in guaranteeing a competitive advantage for RECF platforms over traditional ones, increasing speed and efficiency of execution for deals. Particularly, Fundrise can perform the relevant due diligent in almost 15 days and completing it in a maximum of 5 weeks (Fundrise, 2016). Leveraging online competencies for speed of action is key for reaching efficiency and reputation on the Real Estate market (Esposti C., Cinelli S., Carl S., 2015). Effectiveness on due diligence and documentation will result in higher transparency for parties involved in the deal. Communication flow between investors, Sponsors and the platform would better off by online technologies, accessing real time updates on deals. Moreover, transparency has to be intended as the obvious outgrowth of letting small investors pick the best-fit deal; while REITs allows for direct investment in a portfolio of assets, reaching investment portfolio diversification through Real Estate just theoretically, RECF allows investors to search for, identify and fund properties they think will generate high returns, contributing to raise their market awareness and enhance expertise. Trusting in personal ability for picking and choosing investments, crowdfundee will enjoy higher satisfaction, linking themselves to RECF platform and generating network effect (Esposti C., Cinelli S., Carl S., 2015). Resulting from the specificity of the investment, RECF give to investors full updates through financial summaries and other types of disclosure, rather than just some summarization or syntheses of the overall investment trend. Summing up, key features of RECF compared with traditional Real Estate investments are the presence of a crowd, a crowd composed mainly by small investors and "non-tradability". The absence of financial intermediaries and the openness to a "crowd" of small accredited investors would require higher expertise from individuals; even if individual accredited investors will presumably be wealthier, they will be weaker, smaller and less experienced than institutional investors and experts. Small investors in RECF will lack financial formation and experience and be not-well organized, resulting in higher costs in terms of identifying projects, run the opportune due diligence and select the most appropriate choice (Freear J., Sohl J.E., Wetzel W.E., 1994). Compared to institutional investors, small crowd investors invest smaller amount of money in projects, potentially manifesting cognitive biases and lower incentive levels; emotional contagion (Barsade S.G., 2002), hysterical reaction (Balaratnasingam S., Janca A., 2006), free-riding and low monitoring (Cipriani M., Guarino A., 2005), and other crowdfunding motivation-related cognitive biases could arise. Generally investors in crowdfunding projects are more likely to invest when someone else already invested in that specific projects (Kim K., Viswanathan S., 2013); this highlight the weight funding schedule has on ability to engage the crowd and effectively raise money, and how target a "near" crowd (family, parents, friends) could be fundamental in attracting next funders (Agrawal A.K., Catalini C., Goldfarb A., 2011). If Real Estate provide itself with a secondary market for transactions (Ray R., 2006), there are no contracts allowing transactions between users on crowdfunding investments. The existence of a secondary Real Estate market is fundamental for a multitude of reasons: potential for market efficiency and fair competition (Chordia T., Roll R., Subrahmanyam A., 2008), pricing based on demand and supply (Kakarot-Handtke E., 2011), reallocation of investments (Fox M.B., Morck R., Yeung B., Durnev A., 2003) are just some of them.

2.4) RESEARCH QUESTION

Aggregating these introductive RECF's specific issues with the ones related to Crowdfunding in terms of extrinsic and intrinsic motivation, prospect of adequate risk-adjusted returns and forecasted market evolutions it is not insane acknowledge the presence of some concerns, doubts and "shadows" floating over the macro-umbrella of crowdfunding and, by induction, over Real Estate Crowdfunding. This work aims to disrupt the incipits of Real Estate Crowdfunding, going deeper into its main characteristics compared to other forms of Real Estate investments, investigating pros and cons of this relatively new approach, screening the geographical markets trends, the relevant legislation in different areas and forecastable updates, trying to evidence the level of investors' desirability, and which is the potential impact of this disruptive innovation on a mechanic market like the Real Estate at a micro-level (investors or crowdfundee) and macro-level (economic efficiency and equilibrium).

Precisely, the Research Questions the Thesis want to address and answer are:

1) Which are the intrinsic/extrinsic motivations making stakeholders (Real Estate Crowdfunding companies/platforms and small investors/crowdfundee) engage/not engage in Real Estate Crowdfunding practices?

2) Which are the economic and social benefit experienced/perceived by stakeholders engaging in Real Estate Crowdfunding practices with respect to other forms of investment? And which the potential drawbacks arising?

3) Is there a link between «better economic and social results/relationships» and «Crowdfunding in Real Estate»?

3) REAL ESTATE INDUSTRY OVERVIEW

3.1) HISTORY OF THE REAL ESTATE MARKET

3.1.1) History of the U.S. Real Estate Market

The American market is known for its transparency. Since the American market, and in general all markets, today are globally connected, a movement within it would create ripple effects all around the globe. This fact became more evident in 2007, when a local real estate crisis in the American markets became a crisis of global proportions. To analyse which is the current landscape in the US Real Estate Market, it is necessary to outlook which has been its recent history.

Stage 1: The Bust

The American Real Estate market was witnessing a bust from the 1980’s onwards. Before 1980’s, most of the houses bought were a result of money borrowed from the “Savings and Loan Institutions”. The real estate bust was created by the “Savings and Loan Crisis”. The S&L crisis represented the most significant bank collapse since the Great Depression of 1929. S&Ls were created by the Federal Home Loan Bank Act of 1932 to promote homeownership for the working class. S&Ls’ backbones were lower-than-average interest rates on deposits and lower-than-average mortgage rates. Security of the S&Ls system was ensured by building up the FSLIC. The decline of S&Ls system started with the stagflation of 1970. To prevent inflation, FED raised interest rates, while S&Ls’ legislation fixed caps over interest rates. This scenario devasted S&Ls. The situation worsened in 1980s’ with the arising of “money market accounts” (Calavita K., Pontell H.N., Tillman R.H., 1999). They offered higher interest rates on savings without any insurance, causing the emptying of bank accounts. Under S&Ls’ pressure, the Reagan government totally removed the interest rate cap, opening the range of loans also for commercial and consumer purposes. Despite this change, by 1983, 35% of S&Ls’ still weren’t profitable (Amadeo K., 2017). Even though banks were running out of fund, government allowed S&Ls to continue making bad loans, and losses kept mounting. Lower banks’ reliability and higher interests rate sensibly reduced the number of people who would borrow at these terms, bringing a crash in the real estate market (Juneja P., 2019).

Stage 2: The Manufactured Boom

1980s’ bust determined low lending activity. The government introduced legislative changes trying to recover the lending activity, particularly for the real estate market. The most important one was the “Community Reinvestment Act” of 1977. *“The Community Reinvestment Act (CRA), enacted in 1977, requires the Federal Reserve and other federal banking regulators to encourage financial institutions to help meet the credit needs of the communities in which they do business, including low- and moderate-income (LMI) neighbourhoods”* (Federal Reserve, 2018). Its main purpose was that of increasing lending for communities. The policies effort of boosting the people home buying would soon lead to irrationality, also called "America Dream". Simply, the long-term implications of these policies have not been thought. Interest rates had been fallen to 1%. The only objective was that of providing as many loans possible to the community. The natural consequence was one of the biggest booms in the American history. The real estate market found itself with a huge number of buyers with high willingness to pay for properties and real estate appreciating in value as never before. Since this boom, lasting from 1990's to 2007, was created more by government policies than from the real economy, it is also called the "Manufactured boom" (Juneja P., 2019).

Stage 3: The Crisis

As soon, the "manufactured boom" translated into the "manufactured crisis". Once again, government (under President Greenspan) had to raise interest rates. What is next is history, better called "subprime mortgage crisis". The increase in interest rates determined an increase in monthly mortgage to be paid by those people who received lends by the CRA policy. Obviously, many houseowners could not afford that increase. As result, the properties had to be foreclosed. Naturally, real estate market underwent a decline in prices that generated an excess in supply contracting the prices even further. A crisis that started in the U.S. Real Estate market as soon spread over its geographical and market boundaries, becoming global and financial (Sebok M., 2019).

Stage 4: The Post-Crisis Market

Post 2008-depression, Real Estate market continued to heal at a lower rate; right now, the market is facing a steady rise. Government intervention in the market is low and is no more oriented to growth establishing insane interest rates. Home buyers are now in a legislative environment marked by different characteristics:

1) pre-cash loans are almost gone. Householders can choose between fixed-rate loans or adjustable-rate mortgage (ARM) that meets "Qualified Mortgage Standards" (QM) established by the Consumer Financial Protection Bureau (CFPB). The latter will have interest rate cap so they can't jump too high too quickly.

2) Full lending documentation with down payment from 3% to 3.5% on loan program.

3) Higher credit score requirements to access lending without paying extra interests on loans (at least 760).

CFPB legislative intervention meant to increase investors' transparency. According to Chris Herbert studies (managing director of the Joint Center for Housing Studies of Harvard University), almost 90% of house renters want to become houseowners.

Prices, which fell over 33% during the recession, have rebounded and are now up more than 50% since hitting the bottom. According to Rick Sharga, there hasn't been such a rush in the house ownership like the boom's one as lingering nerves continue to affect market operators (Lerner M., 2018). Elizabeth Mendenhall states

"Even if people were not directly involved in the real estate bubble, they suffered the financial reflection of the crisis or knew someone who was affected by; as result, people nowadays discuss and think more about the idea of owning a property" (Bramstedt B., 2019). Even though the market crash, Americans are willing to own a house or invest in the Real Estate market even today. Real estate and financial crisis have made lenders and consumers more risk averse. Low documentation and interest-only loans were okay for a small niche of qualified borrower; the problem occurred when applied to a wide extent of subprime borrowers. Now people understand that lending should be sustainable, otherwise everyone in the system lose (Park K.A., Herbert C., Quercia R.G., 2014). As regulation evolved, also standards for lending escalate. According to Ellie Mae, if during the economic boom average credit score for borrowers was in the mid-500, in July 2008 had a FICO average score of 700 (Lerner M., 2018). Additionally, low credit risk scorers do not apply at all for loans, stating a diffused prudential behaviour by the community. Moreover, during the economic boom the market attended a rapid price appreciation despite the availability of inventory. An inverse trend compared to the general market rules. Michael Fratantoni said "nowadays, when prices increase is because of an increase in demand or a constrained supply" (Lerner M., 2018). People are more likely to wait to have money to sustain ownership today, while during the economic boom they would just take more mortgage debt to buy second or third homes, taking advantage of the housing boom. Beyond regulatory and economic changes occurred after the housing crisis, people behaviour has radically transformed; borrowers look at property ownership as a place to live, not as an investment (Park K.A., Herbert C., Quercia R.G., 2014). Summing it up, the U.S. Real Estate Industry has a history of ups and downs. Real estate is far from the steadily and predictably rising investment class that many people make it out to be. In fact, it is almost as risky as other investment.

3.1.2) History of the E.U. Real Estate Market

Between the late 1980s and 1999, European Real Estate market started being liberalised and developed, attending a rapidly increase in mortgage markets expansion. It more than doubled in nominal terms over that period and at the end of decade the outstanding mortgage loans amounted for over €3 trillion (more than 35% of EU GDP). The reason should be considered the legislative implementation (such that the European Union's Directive on Own Funds and Solvency Ratio) enabling preferential weighting for residential loans, increasing lenders' ability to finance mortgage credit (Colombo J., 2012). The increasing competition in the late century boosted the market growth as worsened required standards; as result, mortgage loans spread between 2000 and 2007 to over € 6 trillion (50% of EU GDP) (Battistini N., Le Roux J., Roma M., Vourdas J., 2018). As house ownership spread and house prices (so mortgage debt increase) some countries registered mortgage debt levels higher than their GDP. Even though, thanks to financial deregulation, lenders in Western countries (and also in Central and Eastern ones after the fall of communism) responded with accommodating lending products to potential householders. The standard annuity mortgage was supplemented or even largely replaced, in most countries where the regulatory system permitted, with innovative mortgage products that reduced initial payments (e.g., interest-only mortgages, longer terms, or mortgages denominated in foreign currencies). As importantly in countries which had traditionally operated with fixed rate mortgages, such as the USA and Denmark, there was a move towards the use of adjustable rate mortgages in the early part of the decade while in the UK and other variable rate based systems there was a growing use of discounted short term fixed rate. Mortgage innovation had been beneficial in the short run (allowing investors to acquire properties otherwise out of reach), but riskier in the long run, causing inflation (ECB, 2003). As happened for the US Real Estate Market, the real estate market found itself with a lot of potential householders and appreciation of real estates, creating a "fake boom", intended to transform itself in a "subprime mortgage crisis" by the increase in interest rates, inability of householders to repay mortgage and interests on it, excess of supply and depreciation of properties. What followed was a period of considerable credit constraints and increasing pressure for strict disclosure regulation. In many European countries prices rapidly rose, thereafter with massive declines. Considering a real estate bubble started in the US market, not surprisingly the biggest European crisis was registered in the most open economies. Extreme cases were that of Ireland and Iceland, falling of over 40%; this sharp decrease is due to not only the economic exposure of these countries to financial openness, but also the strong worth of construction in real economies. For the same reasons, but with a different impact, Spain fell by "only" 17%, a lower rate than expected. UK falls of up to 10%, as many Eastern economies like Slovenia and Czech Republic. At the other extreme there is a group of countries (Germany, Switzerland, Austria) that hardly noticed the credit crunch after the first few months and saw continued growth in house prices over the period to 2010. In the middle there were countries that experienced a slight slowdown of economies (no more than 5%), even though they had different characteristics: France and Norway, with strong government support; Netherland, with high housing debt; Portugal, particularly hit but with a slight increase of house prices over the period. The common characteristics is that, after the crisis, anyone of them has been able to reach the real growth registered before the crunch (Whitehead C., Scanlon K., Lunde J., 2011). The time extent of the crisis varied a lot among countries; as natural consequence, also market adjustments and government interventions did. Particularly, after the severe years of recession, there was a great optimism that countries housing markets could slowly return to the "pre-crisis normality" and that in the end there would be an increased stability in European real estate markets. In fact, austerity and increasing government involvement in general finance markets have taken over (ECB, 2003). Looking at period between 2010 and 2013 (after crisis), some countries continued to experience a fall in real terms: Ireland and Spain suffered a decline of almost 25%; Portugal experienced a fall offset by government intervention; Slovenia and Czech Republic were the most suffering countries in Eastern Europe. The most surprising cases were those of Denmark (-30% since 2007) and Netherland (-20% since 2010), mainly due to government's austerity measures. UK continued to experience decline in this period but a much lower rate. On the other hand, countries like Sweden, Finland, France, UK and Belgium have seen generally stable house prices. Latterly, Austria, Germany and Switzerland (backing general trends) experienced rapid house prices rises, mainly due to a shift towards owner-occupation. All this suggest that beyond the common factors dragging the market (and financial) crisis, it should be also considered peculiar elements allowing it to be different from countries to countries in power and extension (Whitehead C., Scanlon K., Lunde J., 2011). It seems logical to look if there is a match between the countries' real economy path and the net lending ones. Expecting the highest level of net lending to be on the run up of the crisis. Even though, in some countries like Germany, Norway and Sweden net lending was higher in the post-crisis period (2012) rather than during it. Particularly, it can be seen how countries with stable or rising real economies after crisis experienced (backing general trends) also an increase in net lending. The common factor is that, even considering the attempts to deleveraging, there was an increase in the mortgage debt to GDP ratio almost for all countries. Nevertheless, majority of countries has been little increased since the crisis mainly due to lower demand as well as higher constraints on funding (Colombo J., 2012). Sometimes transaction give a better picture of a market rather than prices. Prices may rise due to a larger demand to supply or because the market is suffering a low supply level. Generally, in the European Real Estate Market history, the first applied for the first part of the century while the latter applied for the crisis and post-crisis period, mainly in countries with higher mortgage debt to GDP ratio like Ireland, Sweden and UK but with lowered transaction levels. Making an outlook over the European housing market, much of the countries were already experiencing low transaction levels before Lehmann crash, associated with affordability issues and high debt exposure (Whitehead C., Scanlon K., Lunde J., 2011).

3.2) US VS UE: 2020 REAL ESTATE MARKET OVERVIEW

3.2.1) U.S. Real Estate Industry 2020

"Investment volume in 2020 should total between $ 478 Billion and $ 502 Billion, on par with the prior two years and one of the strongest years on record" (CBRE, 2020). This is the debut of a study conducted by CBRE, a commercial real estate services and investment firm, predicting one of the strongest years on record for the commercial real estate industry. Even though investors have become increasingly cautious and focused on investment's potential after the bubble crash occurred last decade, capitals to be invested remains abundant. U.S. commercial real estate investment will be even more attractive considering low bond yields and weak conditions of equity markets. Decrease in hedging costs will ensure the market a high turnout of foreign investments. Even though, risks will be present in this market: expected rates will be low, volatility, fluctuations in currency hedging costs. At market level, low interest rates have fuelled demand for mortgage debt, ensured by cap rates. Lenders are accommodating this demand, keeping pace. On the equity side, $ 210 billion of capital were concentrated and available only in North America in September 2019 (Preqin, 2019); moreover, institutional investors plan to increase their investment in the market in 2020. Effectively, a decrease between 5% and 10% in investment volume will occur, due to higher time range necessary to close deals (investors are becoming more cautious and selectively about investment opportunities). Nonetheless, investment volume is predicted to swing between $ 478 Billion and $ 502 Billion, pushed by predicted increase of transaction in primary, secondary and tertiary markets, low cost of capital and forecasted investors' high yield returns (CBRE, 2020).

Office/Occupier

Office-using employment is expected to grow by 0.3%, with 45.700 new jobs in 2020. The expected top-three markets are Austin, Dallas/Ft. Worth and Houston. Suburban and downtown vacancy rates will remain steady, with a small reduction due to a lower pace of office completion. Within the office market, technology industry will dominate demand, with an overall percentage of 21.6%, followed by Financial Services and Insurance (18%), Education, Health Care and Life Sciences (12%) and Business Services (11%). Approximately, tenants will search for more than 174 million sq. ft. of office space. Tech industry will represent one of the main drivers of real estate completion in areas like Austin, San Jose, Salt Lake City, San Francisco and Nashville; Los Angeles will represent one of the lower completion rate area, respective with an increase in renting rates. Beyond technology industry demand, CBRE esteem as strong driver of real estate market growth the sharp boom of flexible office space. CBRE forecast a 13% of growth from 2019 to 2020, due to continuous evolution of engagement models between landlords, occupiers and flex operators, hedging each party from risks eventually arising from conflicts (CBRE, 2020).

Industrial and Logistics

U.S. industrial market will see some negative shifts in 2020; supply will outpace demand of about 20/30 million sq.ft., stating an increase in the renewal rate with consequent slight increase in vacancy rates (near historic lows in 2020). Despite these elements, it is forecasted a rent growth of 5% mainly due to the high request of high-quality warehouse strengthen by e-commerce acceleration and same-day delivery policies. Even though the US-China dispute could negatively affect the I&L market, the trade with China is not the only demand driver. Conflict could impact on consumer spending and supply chain dynamics (whereby a shift from facilities in China to countries like Vietnam, Malaysia and India). Geographically, there would be (as user dynamics impact on supply-growth) a high desirability due to high liquidity in secondary markets investments, like Charlotte, Cincinnati, Denver, Louisville, Orlando, Portland, St. Louis and Tampa (CBRE, 2020).

Retail

U.S. retail sales increased 3.5%, reaching $1.57 trillion in end-2019 and an unemployment rate of "only" 3.5%. Even though a constant growth in the market, consumers are becoming more "suspicious and cautious" because of US-China conflict's political and economic uncertainty, as import costs could arise slowing down sales margins. Retail growth could be outpaced only with a reformulation of the market; retail-only will be no more considered satisfying by consumers. Stating that, mixed-use town centers will revolutionize and add value to well-positioned retail assets. Co-living, coworking, recreation and entertainment, sport facilities, universities, public events and green space are going to complement retail destinations, creating a dynamic and high-value environment. Development challenges include market demand, design, regulatory issues and zoning. The most problematic ones will be Reciprocal Easement Agreement (REAs) that govern each site.

When evaluating retail market, consumer composition has an important role; Gen Z is distinguished by a high spending power, positively impacting on retail (particularly shopping malls). Gen Z spends almost $ 143 billion per year and drive other $460.5 billion by others. They are digital natives, so their natural environment is the Internet landscape. Even though, studies demonstrate that novelty and emotive experience is searched not only in online platforms, but also in store; moreover, they like not only to shop online, but also in physical retailers. H&W is in early stage of growth but is one of the fastest-growing retail sectors, as consumers are increasing their awareness and willingness to pay to improve the quality of their lives, wellbeing and self-care. Companies in the sector are not just increasing their consumer base but are trying to build up communities of like-minded consumers by innovating the way of interpreting and using products. So, the world is assisting both at a growth of retail real estate market and the pivotal reinventing of the retail landscape (CBRE, 2020).

Multifamily

Multifamily apartment demand will decrease approximately of 20% from 2019. Millennials demand for homeownership will increase at a modest pace, mainly due to affordability issues. Even though, multifamily demand will be enough to absorb the market supply. New starts and completions will increase during the year, with a shift from urban area to "suburbs". As rent market has expanded, new regulations have been introduced in some geographical markets (New York, California, Oregon). A large debate is spreading whether is better exercise control over the market by regulation or just let the market control over itself. Buying or building in suburbans will represent a better investment opportunity compared to urban areas. Top four multifamily markets will be in 2020 Austin, Atlanta, Phoenix and Boston, characterized by increasing population, households, employment and demand. Even if multifamily investment in smaller metros have higher risk (low liquidity and high overbuilding), investors should focus on those areas arising in terms of demand, willingness to pay and upgrading urban cores. Examples are Albuquerque, Birmingham, Colorado Springs, Greensboro, Memphis (CBRE, 2020).

Alternatives

Alternative real estate market is represented by self-storage, data centers, medical offices, life sciences facilities, seniors housing and student housing. Alternative markets are attracting more and more capitals due to their sustainable long-term growth and higher-than-average returns. All these are allowing shift of capital invested from regular markets to alternative ones. 2019 preliminary data show that alternative investments represent nearly 13% of commercial real estate market share, generating since 2014 average annual revenues of $ 59 Billion. Specifically, most highlightable market are Senior Housing and Care (31,3%), Medical Offices (22,1%), Student Housing (13,3%) and Life Science (11,8%) (CBRE, 2020). Reasons for alternative markets' attraction are different, resumable in *yield premium, rising market demand, expanded product availability, portfolio diversification, transparency*. Even though yield compression in recent years, alternative cap rates demonstrate to be higher than normal one, e.g. seniors housing (6,3%) and student housing (6,1%) compared to multifamily (5,5%). The growth in business technological implementation has determined a steady increase in demand for cloud storage and data centers facilities, as well as medical innovations have risen demand for life sciences facilities and medical offices. Seniors housing will continue to increase as boomers will find them appealing. Student housings need to be up to date and replaced for college and university demand. Further, alternative market has provided investors with new opportunities to expand their portfolio of investments. Higher product availability translates in stronger portfolio diversification, favouring investors asking for specific target return, more likely to be achieved by differentiating their portfolios beyond the proper commercial real estate facilities. Finally, higher transparency in prices, performances and operations allows investors a better knowledge of the market, resulting in risk mitigation and higher likelihood to invest in them. Incentives must always be weighted for challenges to be afforded: *scale and limited product availability, oversupply, operations.* Generally big institutional investors need portfolios of great dimension to justify the alternative investments. Often this is not possible, considering the alternative sector is lower in share terms compared to the major sectors. Consequentially, increase in demand and good economic conditions have sustained growth of specialty sectors in the past, resulting in supply raises. In some of these sectors, actual demand has not been great enough to absorb the increase in supply, like for self-storage and seniors housing. Further, some of the specialty sectors need high expertise to be managed, and sometimes investors need additional knowledge (CBRE, 2020).

3.2.2) E.U. Real Estate Industry 2020

Weak global trading conditions and possible escalation of US-EU tensions is the landscape for a difficult European real estate growth. Despite this, labour markets are robust and wage growth continue to support consumer demand in Europe (CBRE, 2020).

Slow international trade and Brexit uncertainty is weighing on export demand and output in Europe, while demand continue to grow. This makes EU real estate market a “double faced” market. Aggregate measures hide intra-country differences. For example, average unemployment rate is decreasing (7%); nevertheless, countries like UK, Germany and central Europe have rates below 5% while countries like Italy, Spain and Greece continue to experience above-the-average unemployment rates. The same trend is followed by inflation rates, seen to be higher in the Central region compared to the Mediterranean ones. European GDP is expected to grow at 1% per year through 2020 and 2021, as international trading normalizes, and Brexit-related-uncertainty becomes clearer. Weak growth determined by a defecting industrial sector, balanced by a robust and strong service one. CBRE expect a progressive increase in growth rates as Brexit conditions become clearer and US and APAC economies will provide the needed support to exports. Europe will be characterized by small increase in inflation rates (due to commodity prices stabilization), but not enough to reach the eurozone target. Beyond this, accommodative eurozone monetary policy will continue to take low interest rates, not expecting any increase in the short term. Long term increase in interest rates will be mainly due to U.S. interest rates developments rather than changes in the short term. Moreover, increase in interest rates will be justified by cyclical movements more than adjustments to pre-global financial crisis. Political risks will be represented by country-specific issues (UK and Italy) and geopolitical tensions (among UE, US and China). Investments have been eroded by the Brexit process. Next years will be relevant in terms of redefining future relationships between UE and UK; in any event, UK will no more have access at good conditions to UE markets. In Italy, fiscal projections have made spread over the Italian debt much above the reasonable level (CBRE, 2020).

Offices

Western European countries experienced a slowdown in growth during 2018 and 2019; this slowdown will move on during 2020 not only for these countries, but also for stronger Central Europe economies. Economic difficulties will be reflected in demand for office spaces and leasing activities: it is expected a steady growth of 1,2%, compared with an estimated 1,6% growth in 2019. In previous years, much of the recovery could be attributed to the technological sector. A shift in main drivers of demand is attended, with financial and business services rising as growth lever. Geographic differences not always fall into regional groupings. During 2019, Central and Eastern Europe presented strong take-up numbers. Strong recovery rate in 2019 for Spain and Italy seems to be abated. Germany, Netherland and France will experience moderately demand growth. City leasing prospect depends also on supply levels. During 2018 and 2019 some of the main European cities suffered a constrained availability of buildings, with a consequential fall in market activity and rise in prices. 2020 is expected to re-push vacancy levels due to shifts in the supply side. Rise in supply will be supported by higher completions levels with respect of the past two years. Again, the spectrum of results highly depends on the different geographies considered: London, Paris, Dublin and CEE cities will experience higher availability while Spain, Italy and Netherland will suffer tightening supply. Overall, a shift from 4% slowdown in 2019 to a decrease of “only” 2% in 2020 is expected. Beyond cycle consequences and effects, occupiers will apply a more activist approach to their real estate portfolios’ decisions. This will be reflected in some behavioural trends like high-quality assets concentration, larger use of flexible space for strategic reasons, focus on real estate efficiency and characteristics and greater focus on recentralisation-decentralisation (CBRE, 2020).

Retail and Logistics

E-commerce will represent the main driver of retail and logistics 2020 growth. Once again, the geographical growth will tough depend on the countries’ cultural profiles. Northern and Western Europe is characterized by high credit card usage and digital consumers, assisting a further expansion in internet traffic (1st UK). Southern and Central countries will experience, for opposite reasons, a lower growth, but are trying to catch up. UK will experience bad times in the retail market, mainly for cyclical reasons (GDP slowdown), temporary factors (Brexit consequences) and technological trends (e-commerce). Equally, but with different magnitude, continental Europe will not experience such a negative trend. Even though prime high street rental values in most cities will decline, touristic cities with lower levels of digital sales like Rome, Madrid, Warsaw, Budapest and Stockholm will catch higher rental value growth. Shopping centres will follow the same trend. Retail investment will continuously decline; UK uncertainty and negative sentiment will slowdown foreign investments, mainly from France and Germany. Investors will be more meticulous in investment choices. Logistic will positively enjoy from slight economic growth and internet retailing; occupier demand will remain strong in 2020, with the supply side trying to adequate to customer needs. Rental value growth will be higher in supply constrained cities like London, Dublin and Barcelona while it is expected lower rental growth (due to lower economic growth) in German and Dutch markets. A key trend is the labor market evolution, with occupiers shifting their preferences to fill vacancies. This will permit secondary markets like North-East of England and South of Italy to foster growth, especially in the ecommerce sector. Higher collaboration levels between city's authorities and logistics operators are expected, mainly to hack topics like environmentally friendly policies and cloud storage spaces to face supply constraints. Investment level will continue to be high in 2020, due to higher-than-average yields consumers face in this sector (CBRE, 2020).

Multifamily

Multifamily will continue to gather pace thanks to an increasing number of potential homeowners opting for renting rather than acquire properties (in Germany renting accounts for more than 50% of occupation) and domestic and foreign investments projected to increase of 18% between 2018 and 2021. What makes multifamily sector attractive for investors is the lower susceptibility to economic cycle. This allowed the sector to overperform both retail and office sectors (7,4% versus 5,9% and 3,8%). Investors in this market come from different landscapes (from Canada/US by REITs to European institutional investors) and are willing to invest in both established markets (Nordics and Germany) and emergent markets (Spain, UK and Ireland). Investors are expected to start investing also in regional cities, in search for higher returns and diversification. Moreover, investors' approach is shifting from solely investing money into real estate to get involved since the earlier stages of the development process. Investors' expertise and technological innovations will bring more efficiency to the sector. Even though investors are encouraged by high volume of end users searching for high-quality offers, some issues should be considered, like availability of land, planning issues and rising building cost inflation. However, the main concern is how governments will implement regulation in order to face and secure affordability of investments, as the severity of the legislation could tough impact on pricing and returns. Nevertheless, the sector continues suffering from poor frameworks, particularly important as the multifamily market grows with new forms appearing, like co-living, micro-living, serviced apartments and later living. Further, another relevant issue is the magnitude of sensibility by investors and consumes to sustainability and environmental impact. Their decisions cannot prescind from these considerations (CBRE, 2020).

Hotels

The European hotel sector will continue defending is strong position compared to other regional markets, with an average occupancy rate of 73,3% (compared to 67,6% in North America and 69,2% in Asia Pacific). High occupancy rates translate in capacity issues, allowing hoteliers to increase the rooms' prices. Nevertheless, demand growth is projected to proceed. Some geographical areas will be able to fully hedge the increase in demand (like Dublin and Lisbon), while others will see some difficulties in matching the occupations offered with those requested, allowing hoteliers for further increase in revenues by 2020. A great percentage of new hotels opening (67,4%) are associated with a brand. This part of the hotel market is gaining a great persistence in short time, mainly for their lean operations, strong profit margin and low developments costs. Obviously, investments for high-value projects are limited to core cities, opening possibilities for other investors to put money on different investments' alternatives (like resorts). Institutional investors are directing their stocks to operational hotel investments, particularly building relationships with partners beyond the type of funds used to follow up the operational activities. Obviously, investments in this sector could be affected by cycle changes and economic regression; nevertheless, market insights allow investors to cautiously benchmark their return expectations directing investments from one to another. Institutional investments will represent, in 2020, the 30% of the overall European hotel volume. The sector is becoming more and more appealing since more and more people love to travel and experience new adventures, hedging from the risk of a potential market recession (CBRE, 2020).

Operational Real Estate

Operational real estate (healthcare, student housing, retirement living, education and leisure) is no more considered as a market niche. Demand for these assets is continuously increasing as investors are becoming more and more sophisticated about market knowledge and investment opportunities. As result, in 2020 operational real estate will be central in many investment strategies, both for new and already in the market investors. Higher interest from investors for this market will allow the development of market innovations and relationships restructuring models but also result in a price harmonization as new, high-quality assets are required and acquired by the market operators. Moreover, new sector exploration will always require legislative evolutions and an accurate long-term view. The boom of social media, connectivity, online booking channels and comparison websites has revolutionized the type of relationship between consumers and operator as well the way investors approach to investment. Established brands are no more in a privileged position in new and innovative operational models. Also, investors are now able to directly cure relationship with end-user, consequential to a lower trust in branded operators. What investors nowadays are looking for are partners to operate with or running independently their own "business model", promoting an optimization process of the real estate market (CBRE, 2020).

Data Centres

Data centres sector is measured by megawatts of IT load capacity developed and subsequently leased in the collocation market. The nature of this sector will change in 2020; new data centres will be built (with higher capacity) to accomplish the growth in demand. A 15% growth is expected in the main markets (Frankfurt, London, Amsterdam, Paris), mainly due to the singular capacity of new facilities (switching from 10 MW to 20 – 50 MW each). Development will be sustained by both private European operators and large US-REITs. Availability of free land in data centre hubs, high voltage power required and planning approval and control over risk represent the main challenges for data centres expansion. Particularly, some governments are already putting ban over the realization of new data centres in popular sites because of the high amount of power required. The natural effect of these elements is that new investors should choose whether to compete aggressively on price for popular sites or diverge and create new one in less famous places. M&A played a major role in 2019, and new alliances should be closed in 2020 (Digital Realty's $ 8.4 billion acquisition of Interxion). This will make more and more difficult for infrastructure funds, institutional capital and private money to compete and access the market. Particularly, data centres looking to expand their footprint could miss financial opportunities, since investors generally have more liquidity and afford a lower cost of capital (CBRE, 2020).

Sustainability

Investors, developers, occupiers and advisors are devoting more and more attention to ESG (Environmental, Social and Governance) policies that integrate organisational, portfolio and asset level objectives. Real estate industry has taken several years to adequate its practises to the Paris climate conference dispositions. However, for investors, occupiers and developers environment and sustainability are covering a central role in decision-making. Evidence can be seen in the fact that 93% of investors include ESG criteria in investment decisions and 72% of occupiers express preference for "well-certified" buildings. And this trend is expected to spread in a massive way. Building construction and operations account for almost 40% of worldwide gas emissions: 28% from operational emissions and 11% emitted during manufacture, transport and construction of materials. Environmental and sustainable attitude by investors and occupiers started to be achieved at three different levels: *organisational level*, *portfolio level* and *asset level*. The first include corporate strategy level initiatives like short- and long-term reduction in energy and water usage, lower emission of CO2, improvements in health & wellbeing and biodiversity. The second involves organisation level policies to make portfolio owners possess the fulfilment of their targets, by collaborating strictly with developers, occupiers and other stakeholders. The latter incorporates concretization of corporate and organisation level policies; these practises could be upgrades to building installations or envelope, smart meters and monitoring systems to drive operational reductions, soft services like waste recycling, green cleaning programs or healthy catering concepts. The key element in ESG policies implementation for the real estate industry is the coordination and cooperation of different stakeholders involved in the process. Each actor should be aware of the role played in the shared system, and trade-offs, settlements and goals should be well defined (CBRE, 2020).

3.3) US VS UE: REAL ESTATE LEGAL FRAMEWORK

3.3.1) E.U. Real Estate Legal Framework

The European Real Estate property law has evolved in Europe across time and find its ancestors in the *tribal law* and the *Roman law*. The tribal (or feudal) system was born in the Britain regions and spread after the Norman conquest in 1066. It is a system supposing that "the land" is owned by a king/nobleman, giving the right for a "loan to use" (feu) to a specific ordinary person in exchange for delivering the fruits of the land work. This system decayed with the introduction of a new idea of free and equal citizens during the 18th century (Pocock J.G.A., 1987). Roman law was consecrated with the Justinian Corpus Iuris Civilis (529-535 a.C.) but continued to play a key role even after the Roman empire's fall, leading to the Great Codification of the 19th and 20th century. It introduced some of the fundamental real property concepts, like ownership over possession, hypothecs, servitudes or mortgages (Buckland W.W., McNair A.D., Lawson F.H., 1965). Feudal principles, even in the English land law, have given pace to the major idea of liberalism, supposing the presence of "individual property owing" and "possibility of disposing it at one's will". Specifically, after the Communism fall, European countries (also Eastern ones) started with massive re-privatisation procedures, opening the doors to State owning just in case of public interest through an adequate compensation, or, in other terms, expropriation (Manent P., 1996). Each country developed its own special statute, typically including main dispositions in terms of registration, ownership, rights of use, building. Some countries have experiences "subnational differences", most strongly for UK (with differences among England and Wales, Scotland and Northern Ireland), Spain (with land law competence owned by regions) and moderately in federal States like Belgium, Germany, France and Austria. In contrast, the presence or influence of a supranational or European constitutional law in Real Estate has been limited so far. The European Chief Judicial Institution has dealt with Real Estate Law just in limited cases, like, for example, for the UK Leasehold Reform Act of 1967 (Taylor V.W., 1968), and, generally, just intervening to settle disputes on ownership and acquisition limitations. Even though, some progresses have been made between 2007 and 2008, when the Study Group on a European Civil Code and the Research Group on Existing EC Contract Law presented the first edition of Draft Common Frame Reference (DCFR), fully completed in its last edition in 2009, to assist the drawing up of a political Common Frame of Reference (CFR) (Von Bar C., Clive E., Schulte-Nolke H., 2009). The main aim of the DCFR, beside creating a common private and contract law, was that of integrating and acknowledge different classifications of national private laws and the difficult relationship between them and the European one. European Property Law is part of the development, shifting the focus from the Member State level toward the European Level (Akkermans B., 2011). Property law, for many years, has been left alone because the difficulties potentially arising trying to harmonise different Member States legal systems. Even if highly fragmented, a body of rules for property law is already presented, being instances of direct making of property law for third party protection, retention of title, pledge and security ownership, ownership transfer, property security trusts and rights and hypothec (Von Erp S., Akkermans B., 2012). These are identified as direct making of European Property Law. Beyond the latter, it can distinguished indirect making of European Property law, identifying the set of rules not meant to have an effect of each National private and property law, but with unquestionable intentional or unintentional effect on them, like emission trading rights, wills and successions, matrimonial property law. It is highlightable the presence of a minimum level of EU property law, to be considered as the starting point for a more proactive and participative involvement in development by the European Court of Justice. Even though, the progresses made with the DCFR are not enough, mainly for the indirect effects of the legal framework above direct and ad hoc rules (Akkermans B., 2011). The European Union lacks a prominence over each Member State property law, with issues potentially arising when citizens making cross-border operations in different perspectives, resumable into access to register and cadastre, identification of the property, title and burdens, new build property, public rules, price, mortgage finance, professional assistance, buying process, buyer's family and taxation. Property identification requires searching information through cadastres and land registers. Problems may incur with the property conditions, for example for encroachment by squatters, requiring the definition of a unique, comprehensive and updated information system (Griffin C.J., 2018). Once the buyer has identified the property, he needs additional information to support the operation (European Parliament, 2016). Land registers are divided in two classes: "title registers", snapshotting the current state of the title and mainly diffuses Germanic, Centrale and Easter Europe States, and "deeds registers", accounting information and transfers from one owner to another, diffuses mainly in the Latin family countries (Aitchison J.W., Hughes J., 1982). The buyer always expects to acquire the ownership over the property through the transaction; however, different countries provide different objects to be tradable in land contracts, making it confusing and risky a highly fragmented systems like the currently in force. Moreover, dealing with an unfamiliar property schemes, the buyer would potentially encounter different schemes, like, for example, co-ownership in condominium of the entire building (Belgium, France and Netherlands) rather than separate flat ownership (England) (European Parliament, 2016). Further, and mainly, the buyer is liable to know about the public law in force in the foreign country concerning urban renewal, soil contamination liability, coastal zone protection and so on, with State Members dispositions widely different among them (Swinnen J.F.M., 1999). Additionally, all the troubles when dealing with the financial structure of the operations, the intermediaries involved in the operation and the different taxation system (European Parliament, 2016) should be involved in the analysis. Resuming, problems European citizens face when dealing with real estate properties transaction and, so, European Land law, are strictly connected to the registration, sale, contract, transfer, forms to be accomplished and financing methods (Remien O., 2005). European initiatives activated to solve these issues operates at five different levels: *institutional co-operation, knowledge exchange, substantive standards, academic analyses* and *EULIS*. Institutional co-operation is pursued by the collaboration between four main organisms: Eurogeographics, Permanent

Committee on Cadastre in the EU (PCC), European Land Registry Association (ELRA) and European Land Information Service (EULIS). Eurographics is a European association of 47 organizations from 41 countries, with the main purpose of improving the European Spatial Data Infrastructure development (ESDI) with activities attributed to expert groups: *legal and commercial issues, geodesy, quality, information and data specification, distributed services architecture, cadastre* and *land registry* (Rasic L., 2006). The Permanent Committee on Cadastre of the EU has been founded in 2002 with the main aim of constitute a network of information on cadastre to facilitate the exchange of information, expertise and best practices between local cadastral institutions and those of the European Union (UIA, 2016). The European Land Registry Association (ELRA) is a non-profit association created in 2004 and now composed by 33 organizations representing the Land Registers of 26 European Member States wanting to promote the mutual understanding of land registers, trying to incorporate them into a Community Law for a more secure and open legal framework (ELRA, 2020). European Land Information Service (EULIS) will be discussed later as more than just a part of the co-operation development. These organizations are sharing the common vision of presenting European citizens with a clearer and unique legal framework, recognizing the cultural traits of each country, crossing the incoherence of the actual Land Law fragmentation. The authorities' co-operation would easily spread into knowledge and information sharing (European Parliament, 2016). Beside highlighting and recognizing the different values divulgated by countries' proper land law, EU is promoting initiatives and directive to impose common standards. Two of those are the *INSPIRE directive* and *Eurotitle*. The INSPIRE Directive entered into force on the 15th May 2007 with the Directive 2008/2/EC of the European Parliament, aiming to establish an infrastructure for spatial information, supporting direct or indirect environmental policies or activities (European Commission, 2020) and, so, directly involving property themes. Trying to unify also the mortgage market to empower transparency and certainty within the European countries, Eurotitle represent a title registration based on new European standards. Being a complementary registration beside the national ones, Eurotitle has nor substituted national land registrations neither created a European Land Registry. It is up to Member State to spread the land registration through this instrument to facilitate a common framework and practice development (Ploeger H., Nasarre-Aznar S., van Loenen B., 2005), certainty of rights and information access. Academic analysis is assisting comparison of registrations systems, highlighting pros and cons of each one (European Parliament, 2016). Finally, European Land Information Service (EULIS) *provide access to land and property information across Europe to meet the needs of professional users/lenders, conveyancers and other professional groups* (JoinUp, 2020). Founded in November 2006 at the Annual European Mortgage Federation Conference, originally it was composed and owed by the national land and property organisms of eight countries. Today it is composed by 21 Members States, not all EU-Member countries. It provides users with real time access to land and property information from national registries and cadastres (European Parliament, 2016). The final aim is that of facilitating the access to information about properties all over the Europe, assisting the creation of a single European property market (JoinUp, 2020) and empowering transparency. This regulatory and organisational configuration should be nestled in the current highly innovative financial landscape, exacerbated and accelerated by crowdfunding in properties. In order to accomplish these evolutions, EU first proposed an "Action Plan" in order to make Europe a centre of attraction for financial investments, allowing for new technologic implementations like blockchain, AI, cloud computing and, obviously, crowdfunding. Specifically, European Call to Action or Action Plan fall into the idea of creating a Capital Market Union (CMU), both financially and digitally, promoting Europe as a new financial technologies lab, empowering global blockchain's strategies allowing for information digitalization and cybersecurity. Within this rage of activities, EU seeks to foster crowdfunding through transparent information, governance and risk management (Commissione Europea, 2018). Presented in 2018, once adopted, the new regulation will allow platform to apply for an EU passport based on a single set of rules, making it easier both for supplier and investors to find, evaluate and compare investment opportunities (European Commission, 2020). This led to the "Proposal for a Regulation of the European Parliament and of the Council on European Crowdfunding Service Providers (ECSP) for Business". The legal procedure is the following: approved and published in the Official Journal of the European Union (March 2018), entry into force 20 days later, applicability only 12 months after entering into force, first authorization submission to the ESMA (European Securities and Markets Authority) in the first half of 2020 and, finally, first operation authorization in the second half of 2020 (European Commission, 2018). This discipline refers just to equity-based and lending-based crowdfunding platforms identified as "Crowdfunding Service Providers" (CFSP) and, so, eligible for ESMA to setup platforms and provide crowdfunding campaigns without distinction across Europe, including cash, shares ore any other security based stake approved by the MiFID II Directive. Platforms are required to present their business plan, governance structure, internal control and integrity requirements, to be evaluated by ESMA, accomplishing to approval and supervisory powers, imposing fees in case of serious violations, within the European area. On the other hand, it is up to the platform to chose to operate under the European or National disposition and, so, accounting to ESMA or National authority. Beside operating in the name of the superior principles of honesty, fairness, professionalism, documentation retaining and marketing awareness, CFSPs are required to operate with prudency, beware in client's fund management and compile the Key Investor Information Sheet (KIIS), resuming in a clear and transparent way in a six-page document all risks, costs and potential returns arising from the investment to the client. Support to the client is provided by a suitability test aimed to evaluate, in a two-year journey, the feasibility of the investment proposal. The Proposal, finally, aim to create the basis for a "real marketplace" for loans/shares subscribed through CFSPs investment opportunities; however, so far, they configure more like a "bulletin board" where demand and supply can meet allowing for comparisons rather than a practical secondary market (European Commission, 2018). Even though the European effort in providing this discipline with a common framework, concerns when compared with national law arise. Firstly, the emergence of some application uncertainties and difficulties can manifest. The European proposal misses the configuration of a unique regulation, open up doors for platforms to choose whether reference framework they prefer, being both a potential advantage and a bounding drawback. Secondly, the possibility for companies of interacting and attracting investors from all State

Members is real but should be associated with the issues mentioned above and related with the diatribe "European Law vs National Law". Thirdly, the Proposal allows, as stated, the possibility by the project owner to collect investments not only by equity, that is the only possibility in some European countries, but also by debt and any other type of security approved by MiFID II Directive. Concerns arise in the "general definition" of project owner, missing a clear specification, and whether opening up to different investment instruments could generate issues when dealing with investors across countries. Further, it strengthen legal provisions regarding money holding, for example limiting access for authorized platforms to *"any legal person whose occupation or habitual activity consists of providing one or more investment services to third parties and/or carrying out one or more professional investment activities"* and extending prohibition to platforms' money holding also for equity crowdfunding providers (until exceptions by National Law). Common points when compared with National Laws are requirements specifically requested to platforms' managers, resumable in experience, knowledge, avoid conflict of interests, information responsibility, careful marketing. Differences arise just by the "suitability test" before mentioned. Finally, two are the main pros of the Proposal when compared to National Law: first provisions for a secondary market and wear down of obligations required to invest in crowdfunding (Cucchiarato G., 2018). Trying to make an overall assessment on EU Property Law, some progresses have been made in recent years in trying to uniform the actual discipline, with a highly fragmented landscape composed by variegated National dispositions, where confusion, bureaucracy and legal technicalities could significantly affect entrepreneurs and owners opportunities, investors securities and market development.

3.3.2) U.S. Real Estate Legal Framework

Historically, American property law development aimed to "make land a substitute for money, by giving it all the facilities of transfer, and all the prompt applicability of personal property" (Story J., 1833). Treating land as money transformed the former in a commodity without special status, allowing land for exchanges without any king of prohibition. Simply, and differently from European systems, land and real property wan not configurated as source of wealth to be protected by creditors' claims in multiple ways. Even though the higher protection for landowners, European systems made challenging for creditors to seize land in satisfaction of debts, further reducing capital circulation for productive investments. For this purpose, in 1732 North American and Indian British colonies distanced themselves from New England enacting the Act for the More Easy Recovery of Debts in His Majesty's Plantations and Colonies in America (Debt Recovery Act). Basically, the Act asked Courts to apply over real property the process adopted for seizing and selling debtor's chattel in satisfaction of debts (Pearlston K., 1999). Literature on American property law history acknowledge the English roots and justified the transformation of the former through two main views: the "*decline of feudalism*" and the "*Republican Government incompatibility*". In the feudal system alienation of land was prohibited to safeguard the performance of services like military, impeding simple fee and interest alienation. "Freedom of contract began by being freedom to deal with property by contract" (Atiyah, P.S., 1979). Further, aristocratic principles inherent to feudalism were not consistent with republican policies introduced during the seventeenth century. Finally, the doctrine of primogeniture and the entail were abolished in all states by Jefferson by 1800. The purpose of identifying land and real property as a commodity by the American government, as seen, has deep roots. Event though, the high-risk and long-term view of the investment configure real estate as a “commodity in tension”, in contrast with “the market ideal of an immediate-turnaround, high-return investment” (Bartlet D.W., 1997). Main concern in considering real estate as a commodity is whether it is possible to transform it into a transparent asset easily tradable between actors all over the world. Lack of market knowledge by foreign investors (Edgington D.W., 1995) and high fragmentation of the sector (Beauregard R.A., 1994) makes it difficult to communicate in a clear way real estates’ information to a wide range of audience, seeming the creation of a high-liquid, cross-border exchange market a chimera. Expanding our analysis spectrum, the study must account for the role of state structures and legal/regulatory actions in liquidity definition and enhancing (Carruthers and Stinchcombe, 1999). In the U.S., the presence of 50 governments combined with metropolitan areas’ municipalities has produced a high fragmented and decentralized property regulatory framework. Real estate transactions are generally governed by a wide body composed by federal statutes, state statutes and common law (Legal Information Institute, 2020), and many aspects of this are overlap with contract law, even though considering the specificities of land property (HG, 2020). For the most part, Property Law is “local based”, with regulations regarding zoning laws, building codes, insurance laws, private deed restrictions and property tax law (Molotch H., 1976). Examples are the “Alabama Property Law” from Title 35, Code of Alabama, “Florida Real and Personal Property Law”, “Kentucky Revised Statutes”, and so on (Justia, 2020). Moreover, States have developed institutions to supervise the local rules applications in the ultimate scope of market liquidity. Pointing out, local and state regulations and authorities have been instrumental in introducing national-level activities and laws on urban development, home building and home ownership supporting real estate financing (Florida R.L., Feldman M.M.A.,1988). In this view, two are the macro-regulations to be analysed: The Securities Act of 1933 and the JOBS Act. The Securities Act of 1933 is a federal regulatory scheme that was developed primarily for investor protection; whether an investment falls under the SEC broader definition of “security” it starts falling under the Act’s regulation, making the seller complying with antifraud provisions in connection with the offer or sale of the security. Failing to meet the requirements can make the seller liable, suffering private remedies against him (Hazen L.T., 2016). Within this range of requirement, the first is looking at the correspondence between the investment considered and the 1933 Act definition of “security”[1]. The regulatory definitions helps identifying the wider class of investments, but exceptions could be admitted by the court base by case remanding at the common law and, so, including interests in real estate. Further, if a security is offered for

[1] § 77b(a)(1) - [A]ny note, stock, treasury stock, security future, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, pre-organization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a “security”, or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.

sale it must be registered under 1933 Act's Section 5, except in the case of exemption. Section 5 requires the seller to accomplish "*Disclosure Requirements*" provided in Schedule A of Section 77aa of the Act (Securities Act of 1933, 1933). The Schedule requires a 32-items list of information, ranging from seller biographical information, accounting information, pricing of the offering, profit and loss statements, proceeds from the sale, third parties' contracts copies. Further, Regulation C governs mechanisms of registration. Before selling investments, the seller is required to compile one of SEC registration forms (U.S. Securities and Exchange Commission, 2020). After choosing and filling the SEC-required form, the "waiting period" starts (Securities Act of 1933, 1933). The contract registration will be effective 20 days after filling the form or after the more recent amendment (Securities Act of 1933,1933). Typically, the seller receives the first letter by the SEC after 40 days and cumulative 2 rounds of comments, each one to be answered to avoid stop under Section 8. Once the SEC is satisfied of comments, the effectiveness occurs after final effective data, pointed by SEC, or under "request acceleration" by the seller. Obviously, during the waiting period the seller may begin sale efforts but without concluding any sales or accepting any offers. Moreover, sale efforts can just be in the form of red herring or road show. Finally, the underwriters can start selling investments and collect money once effective date is reached. The process is complex and time-consuming, with high risk for the seller of incurring in fines. Even though, Section 5 dispositions were meant to large public offerings, and exemptions are provided mainly by section 3(a)(11), 4(a)(2) and Regulation D requirements. Section 3(a)(11) provide intrastate exemptions if "part of an issue offered and sold only to persons resident within a single State or Territory" and if the seller "is a person resident and doing business within or, if a corporation, incorporated by and doing business within, such State or Territory" (Securities Act of 1933,1933). Section 4(a)(2) provide private placement exemptions and is strictly connected with Rule 506 of Regulation D, allowing companies to raise unlimited amount of money through sale. Two may be the situations to fall within Rule 506. First, a company should avoid solicitation and marketing. In this case, the security could be sold to an unlimited amount of accredited investors[2] and up to 35 unaccredited investors. Not-exemption disclosure should be always provided to unaccredited investors. Second, a company could operate through broad solicitation and marketing just in case all the investors are accredited. It is up to the company to perform the opportune due diligence over investors. The seller will always register the security under the without-exemptions procedure; just once the requirements are verified, he/she will enjoy exemptions (Securities Act of 1933, 1933). In 2012 the Congress responded to the slow economic recovery after the Great Recession by approving the Jumpstart Our Business Startups Act a.k.a. "JOBS Act" through H.R. 3606; despite the name would suggest the implementation of policies aimed to boost company building and job creation, the main purpose was that of deregulating securities law, providing further exemptions to businesses' registration provisions to those introduced by the Securities Act of 1933 and the Securities Exchange Act of 1934 (Powers T.V., 2012). The JOBS Act have helped bolster

[2] "Accredited investors are investors having sufficient knowledge and experience in financial and business matters to take them capable of evaluating the merits and risks of the prospective investment…an individual having an annual income exceeding $ 200.000 or $ 300.000 for joint income during the last two years, or a net worth exceeding $ 1.000.000 either individually or jointly…an entity is considered an accredited investor if it is a private company or an organization with assets exceeding $ 5.000.00" (Securities Act of 1933, 1933)

U.S. economic activity by "delivering appropriate forms of capital and liquidity to entrepreneurs at each stage of their growth…achieving this goal by addressing: 1) early stage capital requirements through crowdfunding; 2) liquidity for growing companies by raising the shareholder limit; 3) growth capital through the IPO. The JOBS Act is organized in six titles: "Reopening American Capital Markets to Emerging Growth Companies" (Title I), "Access to Capital for Job Creators" (Title II), "Capital Raising Online While Deterring Fraud and Unethical Non-Disclosure" a.k.a. "CROWDFUNDING" (Title III), "Small Company Capital Formation" (Title IV), "Private Company Flexibility and Growth" (Titles V), "Capital Expansion" (Title VI), "Outreach on changes to the law" (Title VII) (JOBS Act, 2012). Title I of the Act threats "emerging growth companies" (EGC), defined as "an issuer that have total annual gross revenues of less than \$ 1.000.000 during its most recent completed fiscal year", retaining this status until "the fifth anniversary of its IPO, it issues more than \$ 1.000.000 in non-convertible debt over a three-year period or it become a large accelerated filer" (JOBS Act, 2012). allowing most of the companies to fall within this range. Exemptions regards executive pay disclosure requirements of 1934 Act, host accounting requirements (e.g. EGC must present not more than 2 years of audits in its IPO registration statement), and relaxed rules on investors communication (e.g. EGC can communicate openly with accredited investors, instructing Securities Act of 1933 Rule 506 and Rule 144A). Two are the most relevant temporal steps in JOBS Act application. In September 23, 2013 Title II of the Act started been applied, allowing general solicitation for unregistered private offerings to accredited investors possessing assets of more than \$1 million or making more than \$200.000 a year (JOBS Act, 2012). Propaedeutic to Title II in expanding capital markets, providing high liquidity standard, in May 16, 2013, Title III came into effect, allowing each investor, not only accredited ones, to invest up to \$2000 or 5% of their income if his annual income is lower than \$100.000 or to invest up to \$100.000 or 10% of annual income if the net worth annually is higher than \$100.000 in closely held ventures under SEC non-accredited investors regulations (American Jobs Act, 2012). With respect to the issuer, Section 302 of JOBS Act introduce further exemptions to § 4(6) of the 1933 Act. Beyond the exemption of not exceeding \$ 1.000.000 over a 12-months period (high stake), the original H.R. 3606 JOBS Act defined specifically which information the issuer should provide to the Commission, the intermediary and investors[3]. Moreover, the amount of information to be disclosed are provided on a "proportional basis": issuers seeking for \$ 100.000 must provide income tax return for the most recent fiscal year and financial statements certified by an executive; issuers seeking for something between \$ 100.000 and \$ 500.000 must provide financial statements reviewed by an independent accountant under SEC procedures; issuers seeking for more than \$ 500.000 have to disclose audited financial statements (JOBS Act, 2012). The rule provides also a clear definition of "intermediary" corresponding to that of "funding

[3] (A) [basic identifying information of issuer] (B) names of the directors and officers . . . and each person holding more than 20 percent of the shares of the issuer; (C) a description of the business of the issuer and the anticipated business plan . . . (D) a description of the financial condition of the issuer . . . (E) a description of the stated purpose and intended use of the proceeds of the offering sought by the issuer with respect to the target offering amount; (F) the target offering amount, the deadline . . . and regular updates regarding the progress of the issuer in meeting the target offering amount; (G) the price to the public of the securities . . . [and] each investor shall be provided in writing the final price and all required disclosures, with a reasonable opportunity to rescind the commitment to purchase the securities; (H) a description of the ownership and capital structure of the issuer . (JOBS Act, 2012)

portal"[4] and, also, which should be its main activities[5] in the scope of "educating the investor". Title V, for investor protecting purpose, increase the threshold of company reporting to SEC: $ 10.000.000 raised and 2000 or 500 investors whether they are accredited or not (JOBS Act., 2012). There is no way to completely remove risk into businesses, especially when it involves investments in startups or small businesses. The U.S. legal framework evolution from The Securities Act to the JOBS Act aims to increase the market liquidity allowing for a wider range of investment opportunities by helping investors make more informed decisions rather than excluding them, educating at the "cautious investment ideology" (Stemler A.R., 2013).

3.4) REAL ESTATE INVESTMENT TYPES

3.4.1) REITs

A REIT (Real Estate Investment Trust) is a company that owns, operates or finances income-producing real estate (Chen J., 2020). Essentially, REITs are corporations, business trusts or similar, that own and manage a portfolio of real estate properties and mortgages (Bagaria S., 2013). In general, REITs allows investors to own valuable real estates, participate to total returns and dividend-base income, helping communities to grow. Investors have the chance to earn a share of the income produced through real estate investment without directly manage the property/properties underlying the REIT. REITs can specialize in a specific real estate sector or diversify, holding different types of properties in the same portfolio. REITs have been founded in 1960 by the U.S. Congress (Chen J., 2020). To qualify as a REIT, a company must accomplish several provisions provided by the IRC (Internal Revenue Code), whose most important are:

- Invest at least 75% of its total assets in real estate, cash or U.S. Trasurys;
- Receive at least 75% of its gross income from real property rents, interest on morgages financing the real property, or from sales of real estate;
- Return a minimum of 90% of its taxable income in the form of shareholder dividends each year;
- Have a minimum of 100 shareholders after its first year of existence;
- Have no more than 50% of its shares held by five or fewer individuals during the last half of the taxable year.

REITs can be classified based on the nature of the REIT: investments that the REIT will make and how investment may be made in REIT (Bagaria S., 2013). Mainly, it is possible to distinguish between *Equity REITs*, *Mortgage REITs* and *Hybrid REITs*. *Equity REITs* are companies owning and operating income-producing real estate (Nareit, 2019). Are the most common form of REITs. Total returns for investors are mainly driven by rent on the property underlying, but they can earn also a capital gain once the property is

[4]. . any person acting as an intermediary in a transaction involving the offer or sale of securities for the account of others, solely pursuant to section 4(6) of the Securities Act of 1933 (15 U.S.C. 77d(6)), that does not— (A) offer investment advice or recommendations; (B) solicit purchases, sales, or offers to buy the securities offered or displayed on its website or portal; (C) compensate employees, agents, or other persons for such solicitation or based on the sale of securities displayed or referenced on its website or portal; (D) hold, manage, possess, or otherwise handle investor funds or securities; or (E) engage in such other activities as the Commission, by rule, determines appropriate.

[5] ensure that each investor: (A) reviews investor-education information, in accordance with standards established by the Commission, by rule; (B) positively affirms that the investor understands that the investor is risking the loss of the entire investment, and that the investor could bear such a loss; and (C) answers questions demonstrating— (i) an understanding of the level of risk generally applicable to investments in startups, emerging businesses, and small issuers; (ii) an understanding of the risk of illiquidity; and (iii) an understanding of such other matters as the Commission determines appropriate, by rule . . .

sold (if the selling value is higher than the price at the time the contract was made). Returns are paid on an annual base and after paying out the operating expenses for the properties. Equity REITs may be listed on the stock exchange, held by public companies but not listed or privately held (Bagaria S, 2013). Equity REITs today represent the main portion of REIT market, owning more than $ 2 trillion of real estates in US in 12 different sectors, a 25-year annualized total return of 10.9% and a 4% dividend yield on the stock exchange (more than double the S&P 500 one) (Nareit). Equity REITs have poor correlation with other assets, including stock and bond, and it is what made this type of investment high valuable in terms of reducing portfolio volatility and hedging from up-and-down cycles. Simply, studies concluded that real estate could earn some risk-adjusted excess returns (Brueggeman W., Chen A., Thibodeau T., 1984). Nevertheless, inflation represents one of the main concerns about investors; is proven that in high inflation period, generally real estate assets tend to adequate their values to prices trend, providing reliable income expectations for investors (Hartzell D., Heckman J., Miles M., 1987). Moreover, as real estate assets could be considered as illiquid investments, the possibility to own part of an asset property within a diversified portfolio and listing it in an official market allow investors to fully negotiate it with transparency on the market (Ibbotson R., Siegel L., 1984). *Mortgage REITs* (also known as mREITs) provide financing to real estate by purchasing or originating mortgages and mortgage-backed securities and earning income from the interests generated (Nickolas S., 2020). Mortgages are associated with *direct mREITs*; mortgage-backed securities (MBS) are associated with *indirect mREITs*. MBS are investment pools of mortgages issued by government-sponsored enterprises (GSEs are created by act of Congress, privately hold agencies that provide public financial services helping borrowing for specific types of individuals), whose main return is based on net interest margin (the spread between the interest earned on mortgage and the cost of funding the loans) (Bagaria S., 2013). A further distinction is between residential MBS (RMBS) and commercial MBS (CMBS), based on the nature of the property funded. Individuals can buy shares in a mREIT (listed on major stock exchanges) and also in a mutual fund or exchange-traded fund (ETF is a security involving a collection of securities often underlying a specific index) (Chen J., 2020). Main risks arising from mREITs are interest risk and credit risk. Manage changes in short- and long-term interest rates is essential for mREITs' business operations. In fact, mREITs are more vulnerable to changes in interest rates than equity REITs, as the main source of income is represented by net margins (Bagaria S., 2013). Methods used by mREITs to mitigate interest risks are interest rate swaps, swaptions, collars, caps or floors and other futures forms. Other ways could be adjusting maturities of owned assets to face volatility. The exposure to credit risk depends on the performance of the underlying loans, the structure of securities and the degree of collateralization (face amount of collateral mortgage exceeds the face amount of RMBS or CMBS issued). But the most important element in determining the credit risk is whether mREITs is issued by the Federal Government or private labels: the first one will be less exposed than the latter (Nickolas S., 2020). *Hybrid REITs*, as the name suggests, are a combination of equity REITs and mortgage REITs (Bogaria S., 2013); they hold both physical rental property and mortgage loans in their portfolios (Chen J., 2019). Stating that, income derive through a combination of both rents and interests (Bogaria S., 2013). Based on listing status, it is possible to distinguish between *private REIT*, *publicly traded REIT* and *public non-traded REIT*. A *private REIT* is not registered in any stock exchange; since that, it is subject to less regulatory restrictions apart from that to maintain the REIT status. Even though, private REITs are less liquid since are subject to restrictions on buying and selling its shares/units. *Publicly traded REITs* are registered on a stock exchange market and negotiated as any other company shares. Inversely to private REITs, these can be easily traded in the exchange market, presenting high liquidity. A *public non-traded REIT* is publicly registered but not traded on any stock exchange (Chen J., 2019).

3.4.2) Investing in Rental Properties

Investing in rental properties means buying and developing a property with the intention of earning revenue from it (Eberlin E., 2020). Owning a rental property beyond the primary residence could be a good way to build wealth, especially for those that are averse to investing in the stock market (Sydlansky P.V., 2018). Income properties can be residential or commercial, single or multi-properties, but whatever the nature of the property underlying investing in rental properties allows the investor to get a ROI from his rental investment accounting not only for “rental income” (how much you charge each month) and “mortgage paid down” (how much you pay for the property owned), but also for “change in property value”, so the additional equity value you get after paying the mortgages ones the property is sold at current housing prices (Sydlansky P.V., 2018). Investing in rental properties, an investor will directly manage and maintain the property for the whole extent, deciding whether to rent it for short- or long-time lapse, to whom rent it and at which price. Alternatively, investing in stock markets securities, you will always find someone else managing your investment (Eberlin E., 2020). Investing in this sector becomes even more profitable when the market open opportunities for “highly leveraged investment”. Simply, investors do not fund all the investment with their own money but will borrow a great part of the full price. When appreciation come out on the property owned, this is calculated on the total rental property value, not only on the amount of “equity” invested, making the investment more profitable in terms of ROE (Eberlin E., 2020). Moreover, renting the property bought will allow the investor to help with mortgage repayments, generally scheduled on a 30-years fixed rate. The great extension is due to the decreasing percentage over the rate of the amount represented by the principal; extending the time frame of the mortgage allows the investor to build the basis from a solid wealth creation. Rents earned by tenants, as long as the mortgage principal gets repaid, could give the investors the chance to not only repay interests, but also to “save money” monthly. Looking at the fiscal part, rental property owners have the right for tax deduction on several expenses arising from rental property like interests on mortgages, insurance, maintenance, travel expenses, legal and professional fees, property taxes and depreciation on value. Investing in stocks or bonds or earning from a regular job, an investor would not have the chance to avoid this amount of taxes (Eberlin E., 2020). Obviously, all these advantages are balanced by the high volatility and risks of this type of investment, strictly related to housing market prices and the ability of the investors to keep the property rented. The investor should be aware that investing in rental property has a long-term view, not an immediate cash-generating purpose (Sydlansky P.V., 2018).

3.4.3) Residential Property Flipping

A useful definition of "flipping" is buy an asset with the intent of reselling it in a low frame of time at a higher price. Specifically, in the real estate market "flipping a property" would mean purchasing a property at discount (due to its poor conditions, or other circumstances like relocation, divorce or pending foreclosure), renovating the house and selling it at or near full market value (Depken C.A., Hollans H., Swidler S., 2009). What makes flipping housing different from buying rentals is that flipping requires active management, while rentals give the investor passive income from monthly renting (Brumer-Smith L., 2019). Flipping properties represents an attractive sector for renting properties since it is generally a short-term investment, without needing to deal with long-term management practises like collecting rents and dealing with tenants. The duration of the investment is limited to the time needed to make cosmetic adjustments; once they are done, the investor just needs to sell the property at a higher price, gaining the difference on the initial valuation increased by "cosmetic costs". As natural consequence, the shorter the time needed to "dismiss" the property at a higher market value, the higher the return on the investment made (Brumer-Smith L., 2019). Above-market prices can be generated by external market forces, like asymmetric information (homeowners do not fully understand the local real estate market) or illegal activity. These types of activities could occur when the appraiser in collusion with the mortgage originator and the flipper's broker set an inflated appraised value. All parties will gain an extra-earning on the transaction, except the buyer. Sometimes are mortgage companies to artificially stimulate demand increasing prices, qualifying buyers for investments that they cannot afford (Depken C.A., Hollans H., Swidler S., 2009). If it is true that flipping properties are less stressful forms of investments, it should be also considered which are its disadvantages. Generally, taxes paid in flipping houses are computed on the price appreciation and considered as an "ordinary income". This means that tax rate on flipping houses generally are higher than the ones applied on rental properties, making this time of investment less attractive for investors (Brumer-Smith L., 2019). Moreover, income from flipping house could be further diminished considering the financing costs arising. Generally, investors do not have the opportunity to fully fund by equity this type of investment. What is important is the choice of the financing option more suitable for them, considering that, on financing, just interests are deductible, and, beyond this, they will require you to earn higher returns to compensate for them. With interest rates risen after the subprime bubble of 2008, it is becoming tougher to make a profit by flipping houses (McWhinney J., 2019). Investing in flipping rental properties require knowledge in picking the right property, in the right location and at the right price, patience in waiting for the right investment opportunity and skills, in knowing yourself how to do the job (McWhinney J., 2019). Flipping properties is based on real estate appreciation, making this investment based on speculation. To fully achieve this speculation, it is fundamental to know before making the specific investment how much is worth to complete the adjustment needed. Only knowing how much "cosmetic repairs" will cost, the investor could figure out the ideal purchase price (Brumer-Smith L., 2019). A rule-of-thumb says that an investor should pay no more than the 70% of the ARV (After Repair Value) (McWhinney J., 2019). This will preserve the investor from unexpected expenses arising in the reparation process or changes in the market condition making the adjustment costs arise (Brumer-Smith L., 2019). The total dollar volume of U.S. financed home flip purchases was $ 6.4 Billion in the first quarter of 2019, up 35% from the previous year; the average gross flipping profit was of $ 60.000, translated into an average 38.7% return on investment compared with the acquisition price. Nevertheless, with interests' rates dropping and home prices rising, even if the home flipping rate is increasing, gross profits and ROI are expected to weaken, as well as the number of investors flipping. Seeing profits margin drop, they may be acting now and selling before prices increase fall even more (Teta T., 2019).

3.4.4) Wholesaling Houses

Wholesaling houses is similar to flipping homes, but in this case the investor does not have to own the property and does not have to afford any maintenance cost (Fiorillo S., 2019). In a real estate wholesaling transaction, a wholesaler contracts a home with a seller, shops that home around potential buyers, and then assigns the contract to one of them (Segal T., 2019). Technically, the goal of the investor is not actually to settle on the property, but to assign the contract to another investor who will, eventually, renovate and resell it. Generally, the wholesaler work is to search for "off-market" properties, meaning that they haven't been publicly listed for sale, at less than the market value and deal with other investors or homeowners to sell it (Kulp K., 2019). Moreover, the wholesaler purpose is to sell the home to an interested party even before the contract with the original homeowner closes (Segal T., 2019). Wholesalers make money by finding a buyer willing to pay the home at a higher price than the amount agreed upon by the buyer. Wholesaling differ from flipping houses considering that the investor will not need money to contract the property (Fiorillo S., 2019); even though, sometimes is possible that a specific amount could be required to secure the property, having the seller want the wholesaler to put down a money deposit (EMD). The amount will depend on the type of property and the seller trust (Kulp K., 2019). Operate in wholesaling sector is not easy; a potential wholesaler should know the sector in which he wants to operate as the back of his hands. Desirable prices for a "fix-and-flipper" operation, construction costs estimation and a useful network of ARV valuators could help on making profits (Kulp K., 2019). Beyond knowledge of market factors, it is important to deal with the legal aspect of wholesaling. Investors should be aware of the applicable legislation in each geographic and economic market, knowing who could be considered as eligible to operate as agent (Kulp K., 2019).

3.4.5) Real Estate Mutual Funds

Mutual funds are professionally and pooled investors that invest in a variety of vehicles, such stocks and bonds (Connett W., 2019). Individuals and smaller institutional investors have traditionally had difficulty in take advantage from real estate investments in the past, since the market was dominated by illiquid units of funds and direct investments restricted to institutional investors (Bogle J.C., 1994). Mutual funds have become a highly popular vehicle through which investors invest in real estate. Mutual funds are open-end investment funds that bear the same characteristics of most of the open-end mutual funds. The growth of real estate mutual funds was mainly due to the growth in new money flow into these specialty funds (Lin C., Yung K., 2004). Real estate mutual funds may contain REITs and other real estate stocks (Connett W., 2019). Investors purchase shares which are bought at the fund's current net asset value, calculated once a day and based on the closing prices of the securities underlying the portfolio (Cussen M., 2020). Mutual funds allow the investor to diversify his portfolio, choosing whether to pursue a growth-oriented or income-oriented objective (Fiorillo S., 2020). In general, mutual funds provide the same benefits of REITs, but providing the investor higher diversification and lower transaction costs (Connett W., 2019) since they are professionally managed, benefiting from knowledge and researches. The diversification level strictly depends on the investment strategy implemented, while transaction costs could be drastically reduced compared with REITs concentrating investments in small amount of funds. Moreover, studies tried to give evidence that manager-specific characteristics like education, experience and professional could impact on outperforming returns for REMFs. A sample of 63 REMFs have been investigated, regressing risk-adjusted returns, market risk and management fees on a series of manager characteristics (Lin C., Yung K., 2004). The study has evidenced that team-managed funds have lower risk-adjusted returns than solo-managed ones. Managers with higher tenure tend to pursue higher market risk and higher-compensated managers tend to outperform lesser-compensated ones (Johnson D., Philpot J., Peterson C.A., 2006). Even though risks are tougher for REITs than for mutual funds, both would suffer in case of a cyclic crisis, as happened in the past. Even if prices have been rising for several years, real estate assets seem to be sensible to factors like monetary policies, labor force mobilization and wages. This means that, even in case of a high portfolio diversification, real estate usually represents a good proxy of the whole economy, following the same trend. On fund performance, empirical evidences demonstrate that these types of investments do not outperform the market. The performance of the larger real estate market predicts and determines the performance of real estate mutual funds (Lin C., Yung K., 2004). In other terms, real estate mutual funds suffer as any other sector-specific funds, presenting higher volatility than "broader horizons investment", like S&P 500 Index (Connett W., 2019). The return on mutual funds for investors is represented by income on the stocks owned plus a potential appreciation at the exit time. Mutual funds, as well REITs, tend to increase in value in periods of high inflation, representing a good hedging strategy for investors (Cussen M., 2020).

3.4.6) Real Estate ETF

Real estate exchange-traded funds (also known as "ETF") hold baskets of securities in the real estate sector (Reiff N., 2020). In other terms if REITs invest in real estate, REIT ETFs invest in REITs securities and related derivatives (Fiorillo S., 2020). REIT ETFs are passively managed around an index of publicly traded real estate owners. Most widely used are MSCI U.S. REIT Index and Dow Jones U.S. REIT Index (Chen J., 2018).

REIT ETFs include different types of REITs components; tracking and index, investors can lower the capital risk arising by investing on one individual company. These securities offer income potential associated with real estate but also the liquidity degree of a common traditional stock (Reiff N., 2020). REIT ETFs represent a good alternative in case an investor does not have the opportunity or the will to perform due diligence on the securities owned. Although investing in REITs represent investing in diversified holdings of real estate assets, buying a single REIT exposes investor to firm-specific risk. Moreover, ETFs trade like regular stocks, differing from these by the basket of underlying securities. Holding REIT ETFs provide more cost-effective means and greater exposure to real estate investments. Investors could allocate only small amounts on their REIT Index, with broad coverage, avoiding expensive direct real estate investments (Ivanov S.I., 2012). Compared with other real estate investment practises, ETFs have lower expenses, allow the investor to realize capital gains ones they are sold, observe daily price changes and allow for immediate reinvestment of dividends. Put simply, ETFs allow the diffusion of bonds and stocks' advantages to REIT sector (Seiler M., Seiler V., 2009). One of the last evolutions in ETFs is short share, as it happens for commons stocks: find a broker able/willing to borrow the underlying shares and waiting for the share to go down in value. If the shares go down in value, the investor would buy them in the open market giving back the borrowed ones (plus the interests due) to the broker (Seiler M., Seiler V., 2009). Introducing short shares REIT ETFs in a portfolio can reduce the risk increasing the total return. Introduction of REIT ETFs could also affect the volatility and asset allocation of the underlying index (Ivanov S.I., 2012). Mixing different REITs securities on the same diversified portfolio could significantly decrease the risk and volatility of the investment (Lin C., Chiang M., 2005), further reduced by linking the REIT ETFs performance to an underlying index, as demonstrated by the inception of the Dow Jones U.S. Real Estate ETF (Boney V., Sirmans G.S., 2008). REIT ETFs are created to fully emulate the REIT Index; these types of investment have become much popular in the sector because they represent a good long-term investment strategy, especially when the underlying securities owned are those of the largest REITs on the market. Even though, REIT EFTs are not immune from the impact of shifts on the market trend and poor management by REITs' top leadership (Chen J., 2020).

Less relevant Real Estate Investment forms for our analysis are "Real Estate Partnerships", "Investing in Real Estate Service Companies", "Investing in Home Construction Companies", "Becoming a Real Estate Appraiser" or "Starting a Real Estate Investment Platform". Finally, "Real Estate Crowdfunding" has been already analysed in Chapter 2.

4) REAL ESTATE INDUSTRY OVERVIEW

4.1) REAL ESTATE CROWDFUNDING PERFORMANCE

4.1.1) U.S. Real Estate Crowdfunding Performance

The Global Financial Crisis of 2008 strongly affected the worldwide economy, hitting indistinctly every single country, from U.S. to Europe, with two main effects for businesses and the financial system as a whole: lower trust in financial services and institutions and lower fund granted to companies and organizations (Campello M., Graham J.R., Harvey C.R., 2010). As seen in this work, Crowdfunding represented one of the most valuable solution to financial constraints. In Real Estate, the democratization of Crowdfunding has been reached with the "Jumpstart Our Business Startup Act" of 2012. According to a Massolution's report, Real Estate Crowdfunding was a $ 2.57 billion market in 2015, with a 157% growth from 2014. If this increase could seem enormous, in 2014 RECF market size hit the milestone of $ 1 billion, with a growth of 250% from 2013 (when market valuation was $ 0.29 billion) (Massolution, 2015). U.S., in 2015 and 2014, accounted for 56% of the market, with a total market value of $0.56 billion in 2014 and $1.44 billion in 2015 (Figure 15). At the end of 2015, the U.S. Real Estate Crowdfunding industry already saw 125 platforms operating at great pace all over the American lands. Obviously, this huge growth was mainly due to the recent openness of the U.S. legal framework to crowdfunding practices, resumable in two main permissions: general solicitations to the crowd and marketing and involvement of non-accredited investors (Clark P., 2016). As result, these percentages would be unaffordable, unfeasible and illogic during the period after 2015. Trying to rebuild the market size for the time frame 2015-2020, support is provided by a forecasting report released by Kenneth Research, analysing future RECF's trends for the forecasted period 2020-2027. According to this study, the Real Estate Crowdfunding total market size in 2027 will reach $ 868.98 billion, with a cash-on-cash multiplier of almost 25 times the 2020's value and a CAGR of 58,30% (Kenneth Research, 2020). Assuming the 2027's market size and forecasted CAGR, 2020's market capitalization for commercial and residential Real Estate Crowdfunding platform is $ 34.88 billion (Figure 15). Coming back in time, during the period 2015-2020, the RECF market grew at an average rate of 89,19 %, much lower than the level reached during the first 3-year period after liberalization and democratization (Figure 15). When looking at these statistics and data, it is important, to really understand the magnitude Crowdfunding is having on Real Estate, to highlight some meaningful insights about U.S. Real Estate Industry. Buy a home is one of the most important milestones in life for individuals. Not just for owning it, as stated previously in this work. Years ago, finding a new house required a demanding and stressful research activity through listing newspaper, looking around the streets for "For Sale" boards and visiting Real Estate agencies looking for cheaper and convenient solutions. At this point, it will sound obvious to understand the economic and time efforts to be afforded in this process. The advent of Internet and all practises related to it generated mainly two important effects in the last 15 years: 50 % of buyers found their "property" on the internet, with just 28% using a real estate agent in the research process (National Association of Realtors, 2020) and buyers look three days less for properties in their journey to investment (Ellis T., 2019). Even though after the global financial crisis the Real Estate market is still stabilizing, with 5.34 million existing building sold versus "just" 667 thousands new building sold in 2018 (National Association of Realtors, 2020), the buyers' inclination to Internet practices has been a "natural booster" for Real Estate Crowdfunding, having the possibility to see all the searching, investment and exit practices translated on an online platform. Unsurprisingly, the 58,30% forecasted growth for RECF for the period 2020-2025 will totally overcome the classic Real Estate market trend, that is predicted to slow down at a -1.8% (Olick D., 2019). However, this analysis and these computations should be well balanced for changes in the current worldwide landscape. Particularly, Covid-19 is impacting and distorting the way business perform their activities and their performance levels. Real Estate is not far behind. Effects changes accordingly to the time lapse considered and the different geographies and sectors under review. In the short-run, executives are mainly concerned with liquidity pressure and property value conservation, also taking care to tenants or workers safety and complying with regulatory dispositions. Retail and hospitality, for example, will be more sensitive to the liquidity magnitude, while office and industrial will be more concerned about how to reorganize and rethink about working process through smart-working. Real Estate Crowdfunding supported a prolific era for the entire industry, characterized by strong capital availability and transaction volumes. The pace at which executives and corporations will be able to restore idyllic backbones for industry growth will heavily depends on the way they will manage this crisis through three dimensions: respond, recover and thrive (Feucht K., 2020).

4.1.2) E.U. Real Estate Crowdfunding Performance

Looking at the European Legal Framework in force in the Real Estate Industry, it can be seen how the main struggles investors, and in general operators, face when dealing with investment in properties: lack of a unified legal scheme (Akkermans B., 2011), compliances arising when making cross-border operations (Griffin C.J., 2018), problems arising in the research process (European Parliament, 2016), and, in general, issues with registration, sale, contract, transfer, forms to be accomplished and financing methods (Remien O., 2005). Even though initiatives and policies introduced (*institutional co-operation, knowledge exchange, substantive standards, academic analyses* and *EULIS*) aimed at creating a unified Capital Market Union, supranational entities could not prescind the consideration of technological development in the financial markets, allowing for new technologic implementations like blockchain, AI, cloud computing and, obviously, crowdfunding. This led to the "Proposal for a Regulation of the European Parliament and of the Council on European Crowdfunding Service Providers (ECSP)". While recognizing efforts European Union is making to stick together different legal frameworks, cultures and attitudes in terms of capital circulation and investing, these policies will be fully implemented at most during this financial year. So, it is easy to acknowledge the lower pace at which the EU Real Estate Crowdfunding market evolved across the years when compared with the U.S. market, where the introduction of the JOBS Act boosted the whole industry since 2012. Cultural endemic European investors' propension to risk aversion even worsen the Crowdfunding spreading process (Heinz F.F., Sun Y., 2014). A research conducted by Massolution forecasted the European market share for Real Estate Crowdfunding to ben 42% in 2014 and 2015, respectively for a total market size of $1 billion and $ 2,57 billion (Massolution, 2015). Predictions were made after the U.S. Crowdfunding Liberalization, assuming same policies would have been implemented at the same pace and with the same magnitude in Europe. However, the story followed differently, with the path to total integration being tortuous and full of obstacles. For this reason, it is assumable the EU market share over the period 2014-2015 was 20% (half the one hypnotized in the academic paper). Reliable data comes from an analysis conducted by Statista, focusing on the Alternative Finance Market trend for the period 2018-2020. According to this analysis, the EU Real Estate Crowdfunding market capitalization (including also UK) was about $ 0.880 billion in 2018, so assuming a CAGR for the period 2015-2018 of 19,63% (Figure 16). Further, the paper, stating the complex landscape above mentioned, assumed the market growth year-per-year would stay the same until 2020, year of the come into effect of ECSP (Statista, 2018). So, in a realistic scenario, the "$ 1 billion hit" in the European Real Estate Crowdfunding market happened in 2019, despite the prediction made by Massolution, for which the target would have been reached in 2015. The current literature misses a forecasting study about the possible evolution of the EU Real Estate Crowdfunding, missing empirical evidences about the effectiveness and gains potentially arising by the implementation of new European policies aimed to a unified legal framework and the creation of a CMU. Considering the revolutionizing nature of these implementation, and the increasing level of investors' education toward new investing methods, the study will assume the CAGR over the forecasted period 2020-2027 replicating the growth accomplished by the U.S. after the introduction of the JOBS Act, stating the comparable innovative character of the measure, having 89,19 % growth for the first 5 years and 58,30% growth for the successive 2 years (Figure 16). In 2027, the EU Real Estate Crowdfunding market will reach a total valuation of $ 76.50 billion under these "conservative assumptions". Investors' readiness to adequate, policies' positive impact on current practices and market real forces could both positively or negatively impact the forecast, pushing higher or sending down valuations.

4.2) MAIN COMPANIES OPERATING IN THE INDUSTRY

Analysing U.S. and U.E. Real Estate Crowdfunding Platforms, the study will focus on the most important platforms in the market, based on volume of transactions, investors' returns, innovative nature of services and value proposition.

4.2.1) U.S. Real Estate Crowdfunding Platforms

4.2.1.1) Fundrise

Launched in 2012 and based in Washington DC, Fundrise purpose was that of eliminating inefficiencies, overhead and little value added for the investors by implementing a new technology aimed to lower costs, improve quality and broadening access. All this translated in the creation of a simple, efficient and transparent platform linked to a high-quality investment class. The idea is that of allowing investors to use their money beyond bonds and stocks in the real estate market, taking advantage from the private market real estate. The technology implemented aims to take advantage of the discrepancies between public and private real estate (sometimes generating return 30-40% higher), exploit the proprietary cloud-based software to create a fully-automated investment system and gather and process information about investors preferences to create the equivalent purchase power of an institutional investor. The platform allows investors to pick different projects to invest in as little as $ 500 through "Starter Portfolio", a diversified mic of eREITs and eFunds. With and investment of $ 1.000, the investor is upgraded to a "Core Portfolio", having the possibility to choose from three different plans: *supplemental income,* steady income stream with focus on dividends, *balanced investing,* a diversified portfolio for greater wealth-building, *long-term growth,* for superior returns over long term. Returns for investors are mainly driven by dividend distributions and capital gains on properties (Lyons R., 2020). Within all the proposal received, Fundrise pick just the 5% of them, due to a rigorous selection based on strict standards. Possibility of investments vary from residential real estates to commercial ones, operating by pre-funding the investment upfront and putting in investors' money only when the contracts settle (CrunchBase, 2020). High information disclosure, an average last 5-years return of 10,79%, low accounting fees of 1%, an annualized dividend yield of 4.69% make Fundrise a great diversification strategy and safe investment (Lyons R., 2020).

4.2.1.2) iFunding

Founded in 2013 by Powderly D., Taus M. and Steen T.C. and based in Portland (Oregon), CrowdStreet is a commercial real estate investment platform giving investors access to institutional quality assets online (Crunchbase, 2020). Crowdstreet focuses in Commercial Real Estate, with one of the wider selection of assets to invest in, enabling investors and mediator to collaborate directly, rather than acting as an intermediary (Kan I., 2019). Looking at statistics at 2020, Crowstreet has an average IRR of 26,3% (assumed on forecasted FCF from projects), 414 started projects and 31 totally completed, $ 1,15 billion raised through the Crowdstreet Marketplace and $ 127 million distributed to investors (Crowdstreet, 2020). Crowdstreet offers three main investment service lines: *Funds and Vehicles, Individual Deals* and *Investment Advice*. Funds and Vehicles allows investors to invest in a basket of real estate properties through a single investment based on investors' preferences and interests; Individual Deals allows for equity investment in specific real estate properties, picking your preferred ones and enjoying the benefits of a passive investment strategy; Investment Advice allows investors to leverage Crowdstreet network and expert members in tailoring and defining an "ad-hoc" investment strategy, delegating the investment activities on the Crowdstreet Marketplace to specific advisors (Crowdstreet, 2020). Moreover, management fees are standardized at a 0,50% – 2,5% level. Even though the advantage of receiving constant support to a dedicated team of experts in the commercial real estate field and the higher-than-average returns, Crowdstreet minimum investment required is of high-cut: $ 25.000. Moreover, access is reserved just to accredited investors. The nature of this choice is strictly linked to the equity-based nature of investments within the platform, determining higher risk exposure (Coombes A., 2020)

4.2.1.3) Prodigy Network

Based in New York and founded in 2003 by Rodrigo Nino, is a real estate crowdfunding company. The company started with help of the founder and his friends and family, raising the money needed to buy a building in Bogotà worth $ 85.000 and selling it after six months for double its purchase price. After working for other real estate companies, Nino decides to run his own business, and started Prodigy Network. The turn was in 2010, when the company had to build the first skyscraper in Bogotà but hadn't the money needed to do it (due to the great market recession of 2007-2008). So, Nino suggested Crowdfunding to solve the problem. Right now, Prodigy offers investment options in most major cities for multi-family, offices, retail and hospitality properties (Lakhani K.R., Hutter K., Friar G., 2014). The platform allows accredited investors to invest sums as little as $ 10.000. The value of the service delivered to the crowd is not only based on the innovative idea underlying the business model, but the way the company behave in delivering the service. Prodigy is partner and co-developer in each project, ensuring transparency and security by a third party fund administration keeping sage investors' money, giving the investor full access to the investment by an intuitive dashboard and reaping benefits only ones the investors received their initial capital and their returns. The company collaborates only with experienced developers, fully disclose track of records and invest in major markets with high growth capacity and low risk for bubbles, supporting also the development of the neighbourhoods (Alois J.D., 2020). With a global network including investors in 42 countries and 27 US states, Prodigy has right now a portfolio projected terminal valuation of over US $ 1 Billion and a crowd capacity of funding projects over US $ 80 million; vertical integration, proved track record, commitment to investors, fundraising capacity, partners network and transparency and security are key values in performing its activity (Prodigy Network, 2020). Even though, Prodigy Network is currently suffering two big lawsuits in work, related to a lack of transparency and mismanagement for the development of two Chicago projects: "The Standard" and "Old Town Residences" (Aloid J.D., 2020).

4.2.1.4) Realty Mogul

Founded in 2012 by Jilliene Helman and Justin Hughes and based in Los Angeles, Realty Mogul is an online marketplace for real estate investing, connecting borrowers and sponsors to individual and institutional investors. Since its launch, the platform has raised $ 400 million across 375 different properties, involving over 185.000 active users (Mercadante K., 2020). One of the most famous projects funded was Hard Rock Hotel Palm Springs with a crowdfunding campaign worth $ 1.5 million. As other platforms, Realty Mogul give access to potential investors to a wide range of real estate investment opportunities, with a return on investment generally starting within few weeks after the investment has been made. The main vision of the company is to cross the limited access to real estate investment for few investors, democratizing the possibility to invest money in this industry. This vision led to the company mission: give investors access to thoroughly vetted commercial real estate opportunities. This is made by linking data-driven insights on the best-fin-investment for each investor and opportunities in individual properties, REITs and property flipping (Hall J., 2019). Beyond this, the minimum investment required is of $ 5.000, with yearly management fees of 1-1,25% and possibility to invest through equity and preferred equity in commercial properties (Mercadante K., 2020). Value creation for the investors is strictly connected with create value for the industry itself. Potential investments are verified unanimously by an investment committee composed by members from institutional entities (Rockwood Capital and Bank of Tokyo Mitsubishi), and only 1 out of 1000 project implemented match the strict requirements needed. Only at this point investment opportunities are presented to potential investors. Due diligence, strong commitment to transparency and reliability and periodic record track are the base of the core activity (RealtyMogul, 2020). Instrument provided for investment are *MogulREIT I*, with a minimum amount invested of $ 5.000 plus a fee up to 3% of Equity contribution and 1% annual asset management fee, MogulREIT II, with the same characteristics of the first but focused on the multi-family market, and, finally, through direct investment through an LLC company. The preliminary process is the creation of a personal account, with the declaration of the status of accredited investor (not needed for the two REITs instruments) (Mercadante K., 2020).

4.2.2) E.U. Real Estate Crowdfunding Platforms

4.2.2.1) Crowdestate

Crowdestate has been founded in 2014 and it is a Real Estate Crowdfunding marketplace based in Estonia. With 47.670 investors, more than € 90 million raised for 240 active projects, it offers high-quality, pre-vetted real estate, business, and mortgage loan investment opportunities (Crowdestate, 2020). The main product offered is development loans, meaning that the investors' money "loan" into a real estate project without concerning about the day-to-day problems could arise, like tenants not paying or restructuring of the real estate (P2PMarketData, 2020). Once the money is invested, investors gain a return rate on the investment equal at 17,04% at the time the analysis has been made (Crowdestate, 2020). Real-estate market opportunities are offered thanks to strong relationships with experienced real estate developers. Due diligence enables the marketplace to select rigorously among the best opportunities, making them survive on the platform. A clear business model combined with strong background information and financial models allow quick investment opportunities with small amount invested, with the lower amount that could be invested equal to 100 € (Brickfunding, 2020). Beyond the low amount necessary to invest in, investors will benefit from the possibility to use the secondary market to buy/sell investments, enjoy auto investment function to fully automatize the process, manage simultaneously multiple investment private/business accounts and investing without any fee (Brickfunding, 2020).

4.2.2.2) Housers

Housers is a real estate crowdfunding platform based in Madrid and launched in July 2015, allowing individuals to receive monthly income based on periodically dividends and eventually capital gains on the underlying property (Crunchbase, 2020). At the time the study has been made, Housers ensures an average

IRR on projects of 8,83%, with a total, continuously increasing amount raised at 2020 of € 113,93 million over 83 closed projects and 274 funded projects and a total pay-out to investors (comprehensive of monthly yields and return on capital) of € 42,62 millions (Housers, 2020). Mainly, Housers offers three different line of services or investment: *buy-to-let*, long-term investment (5-10 years) with the investor earning a quote of the monthly rent proportional to the money invested in the property; *buy-to-sell*, 12-24 months projects where the investor earn the capital gain over the sale of the funded property, without cashing any monthly rent; development loan, 12-36 months projects where investors collect a fixed rate over the capital invested, without any correlation with the result of the projects. In each of the investment types, investors have the possibility to exit the investment in a specific marketplace. Put simply, the first two types of investments are equity-based while the last one is debt-based (Housers, 2020). The minimum amount required to invest is € 50. What makes Housers innovative in Europe, mainly in Spain, Portugal and Italy, is the dedication towards innovation. In September 2019, Housers launched "Housers Green", a service line focused on financing the development of renewable energy projects, completing in less than one year the funding of the first project, "Sun Energy". Moreover, Housers decided to differentiate its portfolio of investment building up "Housers Corporate", a service line aimed to analysing and selecting among the different proposal business projects to be funded, mainly concerning innovative startups and SMEs (Magri V., 2020).

4.2.2.3) Reinvest24

Founded as a real estate company in 2005 in Tallinn (Estonia), but launched as a RECF platform just in 2017, Reinvest24 allows investors to buy shares of a residential or commercial real estate collectively with other investors and earn profit from the property monthly rent and capital growth (Crunchbase, 2020). This platform has as main core activity the offer of equity real estate crowdfunding services; literally, by investing in equity investors are becoming "owner of a share of the real estate", receiving monthly rent (just like in development loans) plus a possible capital gain once the property is sold. The value of the platform is supported by "secondary services" offered like due diligence system for estimation, validation and selection of profitable investments, portfolio diversification over different countries, security of the investment by mortgage on the property held by the Collateral. Once the property funding stage is over (the money needed to buy the property is ready), a "Special Purpose Vehicle" management company is established, and the legal contract is automatically generated for your investment. SPV company will manage the property and deals connected with it (Reinvest24, 2020). Being a relatively young platform, at 2020 Reinvest24 has financed more than 10 projects with € 12 million invested and €4 million distributed back to investors as profits. The average Net Yield on Investment is 8,8%, the average total return on the investment is nearly 14%, the lower possible investment is € 100, and the platform earn 2% management fees over each transaction (Jean Galea, 2020).

4.2.2.4) Bulkestate

Based in Estonia, Bulkestate proposes high-quality property development loans investments particularly focused on customer satisfaction. Once again, before being published on the platform, investment opportunities are checked on a multi-tiered process by a well-designed due diligence system. Investors' funds are kept safe in a dedicated account, separated from the company's one (Crunchbase, 2020). In case the project is not successful, or the money needed is not raised, investors are repaid of the capital provided. A characteristic service provided is the possibility of investing by "group-buying" (Bulkestate, 2020). Investors can join to invest their money in specific assets with other people interested in the same apartment. Obviously, this requires the investor to have a higher amount to be spent. The lower possible investment on the platform is of € 50 and returns are higher compared with the other companies' average, ranging between 14% and 17%, plus the possibility for bonuses for larger amount investors. Great advantages or benefits of the platform is the presence of no management fees and possibility to auto invest. Also, a dedicated committee ensures projects are safe enough to be funded, and each loan is secured through mortgage, executing it in case of loan default. As counterpart, the platform does not guarantee buyback, and there is little disclose of information about the total volume, number of projects involved and return-specific data, both platform-related and product-related, potentially leading investors trustworthiness on the whole feasibility (P2PLendingSite, 2020). Moreover, the company misses the opportunity to exchange or trade investments on a secondary market (Bulkestate, 2020).

4.2.3) Other Relevant Real Estate Crowdfunding Platforms

Other Real Estate Crowdfunding Platforms to be mentioned are: Realty Shares, The Bottom Line, Trusters, Re-Lender, Build Around, 4Crowd, AcreTrader, Walliance, EstateGuru, Crowdestor, PeerStreet, EquityMultiple, Streitwise, YieldStreet, Alphaflow, Rich Uncles, Groundfloor, Crowdrealestate, BitOfProperty, Exporo, LendInvest, Lendy, Lymo, Property Moose, Rendity, Property Partner, The House Crowd, Zinsland.

4.3) ADVANTAGES AND DISADVANTAGES OF REAL ESTATE CROWDFUDING: A COMPARATIVE ANALYSIS

4.3.1) Advantages of RECF

Literature review over Real Estate Crowdfunding suggests could bring a series of advantages, most of all technology driven. This analysis will focus on some of the main positive aspects arising when approaching Real Estate Crowdfunding compared to other practices, mainly traditional Real Estate. Further, this part will not consider Crowdfunding-related benefits, already analysed in previous chapters.

4.3.1.1) Lower costs for higher returns

Real Estate Crowdfunding pursues lower cost of capital for owners and developers and higher risk-adjusted returns for investors by disintermediating the "middlemen class" generally standing between lenders and borrowers (Schonberger M., Koehler D.W., 2017). Compared to real estate brokers and advisors, RECF platforms charge lower fees (Vogel J.H., Moll B.S., 2014); in fact, if in RECF asset management fees have an average value of 1,88% and property management fees an average value of 4%, brokers and financial advisors generally charge a fee ranging around 10% the capital raised (Delcoure N., Miller N.G., 2002). Promoting disintermediation of agents determines a smoother cost structure for investors; moreover, innovative advancements in the industry promoted by Crowdfunding would allow the industry to cross over inefficiencies and saturation, where higher costs could arise (Chapnick A., 2014). Lower entry-level capital needed by low fees structure would make returns on investments more attractive, pulling more and more individuals to invest in Real Estate Crowdfunding, benefiting both platforms, technological progress and the whole Real Estate industry (IPF Research, 2016). Finally, Crowdfunded Real Estate projects provide investors with above-average annualized return, with an average value of 15%. It is common for investor to double their investment in a holding period of 5 years (Frankel M., 2019).

4.3.1.2) Stronger transparency

Together with costs, transparency is one of the main features and issues when talking, evaluating and comparing financial investments. Even in Real Estate. Particularly, a good developer-investor relation plays a major role on the likelihood of success for the crowdfunding campaign (Lambert T., Ralcheva A., Roosenboom P., 2018). Online technology allows for easier information workflow, empowering multiple investment presentation and comparison. Investors have the possibility to know more about investment disposability, compare fee structures and the impact of costs over profitability, making more considered choices (Vogel J.H., Moll B.S., 2014). Keeping and growing high-quality information sharing through dedicated “data room” would increase crowd participation and the odds for crowdfunding success (Block J.H., Hornuf L., Moritz A., 2018). Obviously, the success of a crowdfunded Real Estate projects depends on other drivers apart from the platform efficiency, like qualities of the parties involved, the nature of the property, location, and other real estate related characteristics. However, creating transparency is the backbone of customers’ attractiveness. Increasing sponsors’ report on fee structure and promoting investments’ dashboard standardization can make life easier for customers, facilitating the investment process and spreading platforms performance (Hornuf L., Schwienbacher A., 2018).

4.3.1.3) Broader range of investors

Dealing with private real estate operations could be time consuming in terms of searching for the right investors, explaining the specifics of the property underlying and generally lead to high single entry-stake for the investment. The limited number of investors and the high “minimums” required to invest were the main drawback in Real Estate financing. Using technology-driven instruments and implementing Crowdfunding will allow developers to reach larger populations of investors online, reducing the minimum required to invest and, so, opening the doors to the entrance of thousands and thousands of new investors beyond accredited ones

(IPF Research, 2016). Quality of projects is important for crowdfundees; the way platforms engage with the crowd of potential investors is even more important (Parker S.C., 2014). Internet practices supported the Crowdfunding spreading, diminishing and breaking down distances between platforms and investors, money and opportunities, linking them in a quick, convenient, efficient and cost-effective way and making RECF companies dealing with an unlimited bunch of people (Gunther C., Johan S., Schweizer D., 2018).

4.3.1.4) Enhanced Reporting for Users

Strictly linked to higher transparency level, the use of innovative procedures arising from Crowdfunding for Real Estate make individuals able to analyse and receive high quality information in a easier and timely way (Maarbani S., 2015). As RECF is gaining scale, it is becoming easier and easier for investors to access accountability and data about track records, sponsors' trustworthiness, dedication and past experiences, making evaluation more punctual and "closing the circle" (Pekmezovic A., Walker G., 2016). Trying to make an industry-related example, when investing in REITs an investor has general information about the typology of assets underlying the investment, but do not know much more nor about specific characteristics of the property and the portfolio manager, neither track of records. Dealing with RECF, investors can precisely select the market in which to invest in, the specific property, receiving periodically assessment and performance statements about the investment trends (PeerRealty, 2020).

4.3.1.5) Greater Diversification

Investors have a greater opportunity to diversity their portfolio of investment by dealing with a totally new class of assets (VerticalRent, 2020). While the stock market has enjoyed upswing in recent years, nobody has a "magic 8 ball" able to predict the future trend; so, investing in real estate could represent a great "hedging strategy" by diversifying the investment strategy (PeerRealty, 2020). Moreover, Real Estate Crowdfunding is customizable with respect to each investor preferences, risk profile and return expectations. Most investors approach real estate picking just one property; sometimes this strategy works fine, but it requires a required knowledge of the market, property characteristics and forecasted future trends to make money over it. Oppositely, spreading money over many more assets could be safer, for example approaching the market through Crowdfunded REITs (Huffman E., 2019). Finally, crowdfunding helps diversify among geographies, security types, property types and operating operators (Baker C., Bus J., 2015).

4.3.2) Disadvantages of RECF

To come full the circle, it is opportune to understand which are the drawbacks potentially arising when dealing and breaking down Real Estate Crowdfunding. As stated for benefits, the analysis in this part will focus just on RECF-related cons.

4.3.2.1) Risk level and investor expertise

Crowdfunded Real Estate investments could be much riskier than other types of investments. The nature of the higher risk lies on one of the benefits highlighted before: diversification. One of the preferred investment strategies pursued through Real Estate Crowdfunding is that of picking the preferred property to invest in. Risk associated with one-to-one investment is much higher than the one related with Crowd REITs, where the overall risk is shared among an higher number of underlying properties (Frankel M., 2019). Sometimes the risk level arising from RECF is just a “perceived risk”, deriving from the riskier perception of Crowdfunding, since it was born mainly to provide startups and new companies with funding needed to perform the business. Further, this perception is exacerbated by the “sense of anonymity” when interacting through online platforms, raising the perceived risk of fraud (Kirby E., Worker S., 2014).The reading key is to assess trustworthiness of investors, making them feel the higher-than-average returns collected are due to the market characteristics, not because the risk (Bogdanova O., 2018). Sometimes investors think that knowing where the money are invested in would reduce the risk afforded. This perception is in part wrong. For less sophisticated investors it could be advantageous to start investing in differentiated products; experienced real estate investors demonstrate as investing in tailored properties need expertise acquirable with years of experiences. This knowledge could be balanced by hiring and experts, but this will increase operation-related costs, reducing returns (Belt B.D., Brummer C., Gorfine, D.S., 2012). A good investment strategy in RECF should always consider the investor expertise and knowledge, the risk profile and the industry awareness.

4.3.2.2) Lack of liquidity

Beside the risk management, one (or the main) of Real Estate Crowdfunding issues is the investments’ lack of liquidity. Generally, deals have a minimum holding period of three years, with five-to-seven years the most common time frame (Frankel M., 2019). Some of the reasons people would exit their investment by trading it in a secondary market can be needed to access quick cash, diversion of interests between developers and investors, changes in strategies or identification of a better investment opportunity (QuickLiquidity, 2016). As Miller Y, Principal of QuickLiquidity, said: “Real Estate crowdfunding investments are like marriages. While the couple is walking down the aisle, they are deeply in love. But over time, diversion of interests can occur and the marriage can turn sour, leaving one individual wishing to end the marriage.”. It can take a long time until an investor starts participating investment distribution, generating dissatisfaction and need to change (Frankel M., 2019). Lack of liquidity strictly relates to the of a secondary market (Bogdanova O., 2018). Even though, some investors are not considering today the absence of a secondary marketplace as a main issue: some platforms are already trying to comply with this need, preparing online platforms where to trade individuals’ investments, like for example Crowdestate (Brickfunding, 2020).

4.3.2.3) Lack of Due Diligence

Online Crowdfunding Real Estate platforms could generate lack of transparency and opportune due diligence, not fully disclosing all the relevant information for a thoughtful investment at the time needed. For example, some platforms just disclose information regarding risk and partners track of records after the lender or investor has singed the contract (Kirby E., Worner S., 2014). Possibly, lack of due diligence arises due to the platforms' lack of resources or knowledge (University of Cambridge, 2017), where weaker regulation over information disclosure could determine information asymmetry at expenses of individuals (University of Cambridge, 2017). For example, sponsors usually advertise target IRR over projects between 19% and 22%; this numbers often seem to be a very optimistic vision of the reality, where risk-adjusted returns, a more prudent and relevant measure of performance, are always lower than eye catching returns (Gabison G.A., 2014). This generates, in a consequential and concatenated way, an almost impossible creation of valid historical data and, where possible, most of the time records are misleading (University of Cambridge, 2017). Lack of historical data, due diligence and transparency before investment impact on investors' faith, exponentially increasing the probability of business default and, so, the overall risk for the investment. Everything seems to be strongly interconnected (Kirby E., Worner S., 2014).

4.3.2.4) Regularity chaos

Rapid development of Real Estate Crowdfunding caused some problems since the regulatory landscape does not evolved accordingly to these rapid changes. As saw in the previous chapter, U.S. tried to untangle this muddled mush of laws enacting the JOBS Act. Even though, applicative inconsistencies continue to arise when dealing with the Securities Act and the Property Law, mainly for the discipline inherent private and public offerings (Jinghui T., 2016). Securities law is not only at a dawning stage, but can be complex, exacerbated confusion among individuals engaging with RECF practices. Lack of clarity on rules get even worse since so many platforms started performing their business on a global scale. Opening to international investors has introduced more cross-border complexities, widespread by the absence of a real cross-jurisdictional harmonization (Kirby E., Worner S., 2014). Moreover, despite the recent popularity of RECF beyond Europe and U.S., some countries are experiencing even total absence of a dedicated regulatory framework for crowdfunding, making illegal any initiative intended to raise funding through crowd engagement (Kazeem Y., 2016). Additionally, even if "legally" the actual regulation has crossed the classic distinction between "accredited" and "non-accredited" investors, sometimes it is misleading truly understand whether individuals can or cannot participate in projects, or single requirements are so demanding to impose the distinction ""ex-facto" (Frankel M., 2019). Improved performances offered by platforms in recent years could be vane if not sustained and supported by a clear legal framework, aimed at helping investors make clear choices, receive opportune information and make investments without the fear of legal compliances from "international operations" (University of Cambridge, 2017).

4.3.2.5) Lack of personal relationships

Finally, beside any economic or legal consideration, transferring all the operations related to a Real Estate deal on an online platform potentially undermines the personal relations and, so, trustworthiness investors put into the whole system. Specifically, the almost anonymous nature of online platforms poses the bases for a sense of fraud perceived by individuals, with individuals not motivated in engaging in lawsuits when sums invested are lower compared to legal payouts (Belt B.D., Brummer C., Gorfine, D.S., 2012). Reliance on general partners could be crucial, more than all when an investment gets in trouble: in this case, a partner-friendly behaviour by investor would be fundamental, even though it implies investing more money. On the long-run, if the anonymity of platforms translate into opportunistic behaviours for fraud, overcoming reliance and faith on partners, developers and platform management, any effort could be vane, leading both investors, founders and industry interests (Gabison G.A., 2014).

5) RESEARCH ANALYSIS

5.1) METHOD

Coming back to Chapter 2, this study aims to address the following questions:

1) Which are the intrinsic/extrinsic motivations making stakeholders (Real Estate Crowdfunding companies/platforms and small investors/crowdfundees) engage/not engage in Real Estate Crowdfunding practices?

2) Which are the economic and social benefit experienced/perceived by stakeholders engaging in Real Estate Crowdfunding practices with respect to other forms of investment? And which the potential drawbacks arising?

3) Is there a link between «better economic and social results/relationships» and «Crowdfunding in Real Estate»?

Once the Research framed the broader literature on open innovation, went deeper into Crowdfunding practices, analysed the main economic and philanthropic motivation’s theories, overviewed the current regulatory landscape, broke down the actual and forecasted market performances, and, so, reached a multi-faceted and overall view of the topic, it is time to focus on answering to Research Questions following some simple steps: define which is the Research Methodology, describe the Analysis Sample, stand out the main Results and discuss about the study’s implications on the existing literature.

5.1.1) Research Methodology

To answer the Research Questions, the first step has been identify the target of stakeholders from whom acquire valuable insights and data to be processed, elaborated and evaluated. For the purpose of this Research, the main “parties” involved are two: 1) Real Estate Platforms; 2) Potential Investors.

The second step has been detecting the best instrument or instruments to engage with targeted stakeholders in order to collect insightful information. The choice has been conducting Internet-based Surveys. Internet-based Surveys offer three main benefits: are cheaper to conduct, are faster to be fed and yield a higher rate of response (Fricker JR R.D., Schonlau M., 2002). The main disadvantage when compared to physical surveys or interviews is the absence of physical interaction (Heiervang E., Goodman R., 2011). Even though, possible drawbacks of Internet-based Surveys had to be balanced with the contingences in which the Research has been made: the burst of Covid-19 pandemic made difficult to personally interact with individuals; moreover, for platforms’ representatives, work restructuring and higher workload suffered made difficult for employees to spend more than five minutes to talk about the topic in a valuable way, with the risk to distort or compromise the entire study. Altogether, these factors have made Internet-based Surveys the most suitable and appropriate solution to collect data. Once decided the methodology to get insights, the third step has been articulate Surveys defining questions accomplishing three principles: 1) *avoid pre-set*, in a way to not bias the interviewees; 2) *concise*, trying to make fewer questions to “get the best”; 3) *focus*, keeping it simple and essential, but worthy. Since the stakeholder classes identified were two, also the Survey models elaborated have been two. The decision to produce two different and distinct models come from the different insights and information to be acquired from Investors and Real Estate Platforms. All in all, the structure followed for the two groups has been almost the same, even if labelled with different names. Survey draft has been composed by four main sections, aiming each one at acquiring different kind of information. First part was homogeneous and aimed at gaining general information about the candidate and the consensus to use personal information and data collected through the survey. Initially, the concept was that of avoiding any kind of anonymous filling, asking names for both company representatives and investors. Even though, Investors looked much more “hostile” than Real Estate representatives in introducing their personal information in an online survey. Oppositely, Real Estate representatives hadn’t any kind of problem in displaying their generalities. The “personal information section” has been deleted for Investors only, since having specific information about Real Estate representatives is fundamental to ensure reliability and credibility for the study. Second part differed among the two surveys. For what concerns Real Estate representatives, the main aim of this part (“Operative Questions”) was that of acquiring information regarding their thought on future Real Estate Industry trends, company performances, funding habits and the way the latter impact on final profitability. Shifting to Investor side, second part (“Interviewee’s investment habits”) aimed at investigating which types of securities they invested in, performances achieved, perceived risk-return profile and first general insights of motivations pushing investment. Third part has been labelled the same for the two surveys

("Crowdfunding"), but with different meaning. For Real Estate representatives, this part has been set to understand more about their general knowledge on crowdfunding, the effective implementation of Crowdfunding practices and the perceived reasons to implement/not implement this practice. The Survey purposely stated this last part in a way to be answered by both Real Estate Crowdfunding platforms and Real Estate Traditional platforms, broaden the information collected to give evidence on how different approaches are pulled by different circumstances and reasons. Further, the Survey asked the perceived impact crowdfunding practices would have on funding time frame and performances. Finally, trying to support the study on current crowdfunding legal framework landscape, the Survey asked the perceived adequacy of legal provisions on Crowdfunding. For Investors, similarly but with different shapes, the Survey aimed at breaking down information regarding general knowledge of crowdfunding, track record of investment in crowdfunding, preferred model of investment in crowdfunding and, lastly and most important, which are both the extrinsic and intrinsic motivations for having invested/would invest or having not invested/would not invest in crowdfunding. For this part, the common line between two Surveys has been the intention to keep questions general to the Crowdfunding phenomenon and highlight insight from both players within the Crowdfunding arena and people that are not already in. Similarly, also fourth part had specific features related to the category of interviewee. Real Estate representatives' Survey (called "Investor Habits") aimed at discovering more about Real Estate operators' perception about key drivers affecting investors' investment practices. Precisely, the study tried to investigate which are for Real Estate representatives the main motivations affecting individual investment in Real Estate, which are the main types of investments and how much drivers like trustworthiness, risk and performance interact and impact on individuals' choices. On the opposite side, Investors Surveys' fourth part ("Real Estate Crowdfunding") tried to investigate individuals' Real Estate past investment experiences, their plans to invest in the future in RECF, the motivations to invest and which are the perceived or assumed advantages and disadvantages possibly generated. Overall, the double structure of Surveys tried to look for a match or coherence between choices made by investor in the industry and choices made by Real Estate platforms to encourage or accommodate individuals' investment needs, leveraging the right motivational levers to action. Interviews are presented in Appendix (Figure X and Figure Y). For what concern the methodology used to reach the target investors and Real Estate platforms' representatives the initial idea was that of contacting them individually, trying to exploit networking effects and word of mouth. However, complication arouse due to Covid-19 situations, as stated by the choice of Internet-based Surveys, made difficult to have a direct contact with people, with an international landscape marked by social distancing. Even though, networking and WOM reached in last two decades a new, huge dimension due to the interaction with one of the main discoveries shaping the world as it is known today: Internet. By definition, a social networking site is initiated by a small group of founders who send out invitations to join the site to the members of the target network, with WOM being the driving force to acquire new members (Trusov M., Bucklin E., Pauwels K., 2009). This study is a valid example of how to exploit networking effect through social platforms, leveraging one of the main efficient professional social networks of the last years: LinedIn. In particular, the “reaching approaches” implemented have been mainly two, each one concerning a specific category of stakeholders:

1) LinkedIn groups: this approach has been aimed at engaging with the wider range of possible investors. Obviously, the target groups have been market-related, avoiding any incongruous record. To cite some of the groups used: Jointer – Commercial Real Estate Professionals & Investors Group; Real Estate – Buyers, Sellers, Investors and Developers; Real Estate Investment Guild: Investors, Capital Raising, Fund Formation & Fund Administration; Real Estate Italia – Real Estate Marketing; Real Estate Crowdfunding Education & Networking Investor Group; Real Estate Investor; All Thing Real Estate. Survey filling has been made by publishing a formal post involving the Internet-based Survey within each group, spreading it across users.

2) LinkedIn Direct Contact: initially, Real Estate platforms’ representatives should have been contacted through institutional e-mails. However, considering the workload of companies’ executives and the suffered changes due to Covid-19 evolution, likelihood of Survey filling would have been even lower. It is estimated that almost 75 % of executives do not open their email and check for any of those received (Faul L., 2018); imagine during a revolutionary and restructuring period like the actual one. Rethinking about the strategy, a valuable solution has been contacting them through a more “effective” way than emails: LinkedIn. A study found LinkedIn as the best way for executives from Fortune 500 companies to spend their spare time; 91% of interviewed executives list LinkedIn as the top social network for quality content (Gallant J., 2020). Given their attitude to use it, and the likely crowd email inbox, LinkedIn InMail results as the best channel to get the message at the big executives’ eyes. The search for Real Estate platforms’ representatives has been made by looking at the top cited platforms and connecting with top executives, sometimes even CEOs or Co-Founders. Ones connected, the strategy proceeded with directly engaging with them explaining the nature of the research but without giving additional information beyond the Survey, in a way to minimize the cognitive bias level. As stated by researches on response time, LinkedIn resulted as an impressively effective way to interact with top management figures, far better than emails approach.

Ones the observations have been gathered, the next step has been analysing and breaking down the insights got by the Surveys, transforming unstructured data into structured information. Further, structured data will be analysed with the scope of complying with Research Questions, proposing comparisons with the already topic’s literature, if existing. Finally, using structured information answering Research Questions, discussion on the topic will be proposed.

5.1.2) Sample Description

As stated, for the purpose of this Research, the main “parties” involved will be two: Real Estate Platforms and Potential Investors. Going deeper:

1) Real Estate Platforms: Companies operating in the Real Estate industry with diversified portfolio of activities. Since it is impossible to interview all the members within each of the targeted Real Estate Companies, insights have been acquired from representatives of platforms, answering on behalf of the employer company.

2) Potential Investors: in this Thesis the definition of Investors will be the broader possible. So, it consider people investing or willing to invest their money in any type of securities. The decision of targeting any actual or potential investor comes from the nature of the Research: investigate the motivations and “levers” pushing individuals to engage firstly in investment practices and, more precisely, Real Estate Crowdfunding. By definition, Crowdfunding aims to attract the wider range of individuals, so, it would not have been propaedeutic to the final scope excluding some classes of investors from the process.

Going to the Sample dimension, “Potential Investor” Survey has been filled 41 times, reaching a consistent dimension for information availability and reliability. As stated before, to preserve interviewee integrity, Surveys have been filled in an anonymous way. About Real Estate Platforms Survey, it has been filled 13 times. Obviously, its sample dimension is smaller compared to the previous one, for the reasons above mentioned: intrinsic difficulty of getting in touch with companies’ executives, exacerbated by the Covid-19. Even though, the sample presents a good extension and differentiation, with representatives coming from different companies, specifically: RealtyMogul, Crowdestate.eu, Truster, AcreTrader, ReLender, Alpha Flow, Housers, Walliance, 4Crowd, Build Around (2 Observations). Additionally, 2 out of 13 observations have not given the consensus to use personal information.

5.2) RESULTS

Going deeper in the analysis of data collected, the study will deconstruct data collected by “stakeholders”, going first with the analysis of Real Estate platforms representatives than Potential Investors.

Looking at Real Estate Sample, interviews have been proposed under the scheme of Text 2. Going through executives’ generalities, data are collected in Table 1, resuming “Name”, “Surname” and “Company represented”. Looking at the reference markets for the interviewed platforms, the vast majority operating in Italy (46%), followed by U.S. (31%) and Europe (15%). A small minority operates just in Estonia (8%) (Figure 18). Even though, for the scope of this analysis, looking at the E.U. – U.S. distribution, almost 70% of companies represented operate in Europe while the remaining 30% in U.S. Going further, the Survey tried to investigate the reference submarkets in which each platform operates, allowing for multiple selection, since the majority of companies today penetrate more than one market, as it is highlighted by the companies’ distribution by number of markets penetrated (Table 3). Within the interviewed companies, 25% operates in Residential market, 22% in Alternatives, 16% in Office, 16% in Multifamily, 12% in Retail and 9% in Industrial Logistics (Figure 19 and Table 2). After examining the characteristics of businesses involved in the research, the focus shifted to the operative part of the Survey. Firstly, the study tried to assess interviewee’s perceptions about next market evolutions. Sampled companies have little optimism about future market trends, with almost 85% thinking the Real Estate industry will grow slowly while 15% thinking the market will grow sharply (Table 5). Even though, the totality of platforms considers the market as solid today, thus not believing the market will suffer any recession due to specific issues. Next, representatives have been asked which is the average return on long-term investment made through the platform. Since each record had a specific number (Table 4), the information evaluation has been made compared to the average return for the market. According to the National Council of Real Estate Investment Fiduciaries (NCREIF), 25-year return for "Private Commercial Real Estate Investment" was, at the end of 2019, 9.4%, slightly lower the average return over "Residential and Alternative investment" and "REITs", respectively equal to 10,5% (Maverick J.B., 2020). Since our sampled companies operates in both macro sectors of commercial, residential and alternative investments, the "reference return parameter" the average of the above-mentioned value, with a final value of 10,13%. Proceeding with the computation, 69% of interviewed platforms have above average returns while the remaining 31% performs "poorly" compared to the industry (Figure 20). Looking at the way platforms collect money from the "public" to fund investment projects, answers are very variegated (Table 6) but, surprisingly, 56% of interviewees explicitly cited "Crowdfunding" as an implemented way to collect money for investment (Figure 21). Lastly, for the operative part, representatives have been asked to confirm or deny the existence of a link between the way a Real Estate platform collect money and the return achieved. Almost 85%% of respondents confirmed the influence the collecting strategy has on returns; 15% does not recognize this connection (Figure 22). Switching to the Crowdfunding analysis, as expected, 100% of interviewed knows what the Crowdfunding phenomenon is; of the 13 representatives interviewed, 82% expects his company will introduce Crowdfunding practices in the future (beyond those that already had implemented them). Looking at motivations pushing Real Estate platforms to introduce or have introduced Crowdfunding in their business, respondents attributed this choice for 25% to "Accessibility of Funding", 25% to "Alternative financing to ordinary funders", 18,75% to "Crowdfunding as method to scale the market growth", 9,38% to "Raise funding globally", 6,25% to "First market test for the product", 6,25% to "Take Advantage from Information Society", 6,25% to "Others" and 3,13% to "Keep control over the investors" (Figure 23). Flipping the coin, the other side is giving evidence to which are the deterrents for Crowdfunding introduction in Real Estate. Of the 13 representatives, the majority imputed motivations for not implementing Crowdfunding to "Others" (76,92%), and a littler portion to "Probability of scarce attitude by initiators/other funders" (15,38%) and "Potential for Fraud" (7,69%) (Figure 24). Merged together, positive and negative motivations for Crowdfunding in Real Estate would have an impact on businesses' returns. When asked their opinion about whether the effects of Crowdfunding in Real Estate would be positive or negative, almost the whole sample answered "Positive" (92%) (Figure 25), confirming the trend over the link between "How to collect money" and "Returns". To come full the circle, individuals have been asked about the relation between the time needed to collect money and the introduction of Crowdfunding practices and the appropriateness of the actual Regulatory Framework to accommodate Crowdfunding introduction. When asked about if the time needed to collect money with

Crowdfunding would be higher or lower when compared with other funding methods, 77% of representatives think it would require lower time to collect the money needed to fund projects; 23% think it would require an higher amount of time (Figure 27). Switching to appropriateness of Legal Framework in accommodating Crowdfunding practices in Real Estate, opinions are divergent, with 54% interviewed considering the regulatory landscape opportunely developed while 46% thinking the opposite (Figure 26). Going deeper in the analysis, it is possible to observe how 100% of respondents saying Legal Framework has not evolved opportunely compared to the Crowdfunding market landscape operates in Europe. After, the study tried to get inputs about representatives' perceptions on individuals' investment habits. Being coherent with the broader definition of Crowdfunding, the first question asked is whether they think the Crowdfunding maximum efficiency could be achieved by opening the doors to all kind of investors or just to accredited ones. As expected, 85% of interviewed think the broader the range of people participating in Real Estate Crowdfunding the higher the efficiency achievable for the whole system (Figure 28). Interrogated about their ideas on main Real Estate investment instruments used by individuals when dealing with this market, representatives think for 38,46% the main form used is "Equity REITs", for 30,77% is "Direct investment in rental properties", for 15,38% is "Real Estate Crowdfunding", for 7,69% Real Estate Mutual Funds and, lastly, for 7,69% "Residential Property Flipping" (Figure 29). Further, respondents were asked whether they think the willingness to invest in RECF is higher or lower for small investors compared with other forms of investment. For 62% of them, small investors are more willing to invest in Real Estate Crowdfunding than in other instruments mentioned in the survey. 38% think they would be less willing to invest in RECF (Figure 30). After that, the Survey tried to investigate which are companies' sensations about investors motivations to act in terms of investment attitude. For what concern motivations to invest in RECF, 69,23% of respondents think investors are mainly moved by extrinsic motivations, so "Monetary Rewards", 15,38% from "Direct Identification" and, with 7,69% both, "Curiosity" and "Altruism" (Figure 31). Being accurate, the Survey evidenced representatives thought about factors making investors firstly engaging with RECF. For 38,46% of respondents the main factor is "Opportunity Costs", coherently with the idea of "investors moved by money"; for 23,08% each, factor impacting is "Internet Accessibility" and "Cultural Factors"; for 15,38% the main element is "Geographical provenience" (Figure 32). Stated the low physical relationship involved when dealing with online platforms, the study asked RE's representatives how much they think trustworthiness is important when interacting with Crowdfunding. Not surprisingly, 100% of respondent vehemently affirmed trustworthiness is more relevant when engaging with online campaigns. Trust levels could significantly affect perception of investments' risk level. When asked their opinion about investors' perception on RECF risk, "just" 54% of respondents think investors intend RECF as a less risky practice compared to other forms of investments (Figure 33). Overall, 92% of representatives think crowd could benefit from RECF by achieving higher return levels (Figure 34). Shifting to Potential Investors' Survey, first insight of interest is investigating if sample's individuals in the past have invested in any type of security. For the purpose of this analysis, with the term "Securities" are included four main types: Stocks, Bonds, Derivatives and Cryptocurrencies. Inferring about the sample of 41 individuals, 59% have past investment experiences and 41% have never invested until now (Figure 35). Within the 24 individuals with past experiences, 50% have invested in Bonds, 29% in Stocks, 17% in Derivatives and 4% in Cryptocurrencies (Figure 36). Looking into these numbers, track records on return achieved are provided by Table 7, with an average value of 4,5% of return yield. This number is meaningless without a comparison value. So, comparing the returns achieved by individuals investing in Securities with the average return for the Real Estate market, almost the totality (92%) of their investments underperformed compared with the Real Estate Industry, with just 8% outperforming it (Figure 38). Of this 8%, the totality of investment owners has invested in Stocks. Switching from the "economic analysis" to a more "philanthropic approach", 39% of individuals surveyed define himself as "Risk Neutral", 37% as "Risk Adverse" and the remaining 24% as "Risk Prone" (Figure 39). Moreover, 73% of individuals affirm to have been moved by Extrinsic Motivations when investing money, while just 27% by reasons different from money and returns (Figure 40). Focusing on the Crowdfunding part, first thing to be investigate is the effective knowledge of Crowdfunding by potential investors questioned; just 2% of the sample has no idea what Crowdfunding represents (Figure 41). Translating Crowdfunding basic knowledge into effective call to action, Survey asked whether potential investors have interacted with any crowdfunded project or investment opportunity in the past. In this case, a positive response came from 46% of surveyed, while 54% has never invested money in a crowdfunded project (Figure 42). Among 19 interviewed individuals who had invested in Crowdfunding initiatives, 84% directly invested in projects while the remaining 16% invested by an intermediary platform to reach the crowdfunded project (Figure 43). Going deeper and deeper in the analysis, the study tried to assess potential investors' preferences on Crowdfunding. By briefly describing each model, sample has been asked which of the four main Crowdfunding models they would prefer to invest in: 36,59% of respondents would prefer to invest in a Crowdfunding Equity-based model, 31,71% would prefer to invest in a Crowdfunding Reward-based model, 19,51% in a Crowdfunding Donation-based model and 12,20% in a Crowdfunding Lending-based model (Figure 44). To assess preferability based on motivations profiles, survey highlighted that, for extrinsic motivations driven, 43% prefer to interact with an Equity-based model, 37% with a Reward-based model, 13% with a Lending-based model and a small minority of 7% with a Donation-based model (Figure 45). Further, for intrinsic motivations driven, preferability is slightly different; more than half of interviewed intrinsic motivated (55%) would prefer to interact with a Donation-based model, 18% with a Reward-based model, 18% with an Equity-based model and, finally, 9% with a Lending-based model (Figure 46). Once gathered information about potential investors profile, their preferred model and skimmed preferences for profile, it is time to investigate in a more punctual way which would be or have been, for potential investors, motivations to participate or not participate in Crowdfunding practices. Starting from reasons to participate, the vast majority (39,02%) declares to engage in Crowdfunding practices to achieve "Monetary rewards", making extrinsic motivations the first lever of action. Further, 17,07% of interviewed people state they act moved by "Altruism", 14,63% by "Fun", 9,76% by "Social Esteem", while the remaining part is highly fragmented among people moved by "Regional Identification", "Direct Identification", "Social

Identification”, “Reciprocity”, “Curiosity” and “Others” (Figure 47). Dreading motivations to invest in Crowdfunding are as fragmentated as reasons to invest in this field. The first deterrent for Crowdfunding investment for the analysed Sample is “Lack of Proper Regulation”, for 21,95% of interviewees. After, 19,51% attributes the unwillingness to invest in Crowdfunding to the “High-risk nature of the investment”, 17,07% of sampled individuals think the reason to not invest is the “Probability of scarce attitude by initiators/other funders”, 12,20% for “Limited possibility for the project/startup to scale the industry”, 12,20% for “Disclosure confusion”, 12,20% for “Potential for Fraud” and 2,44% because Crowdfunding practices result “Time consuming” (Figure 48). What could be of interest for this analysis is to break down last two observations and look for a real link between potential investors’ perceived nature of motivations (extrinsic or intrinsic) and effective reasons they act or interact with Crowdfunding practices. Particularly, inferring on data collected, it is highlightable that 87% of potential investors affirming to invest in Crowdfunded projects for achieving “Monetary Rewards” have previously stated to be moved more by “Extrinsic motivations”, demonstrating coherence between actions and perceptions (Figure 49). As counterpart, within the range of potential investors being moved by intrinsic motivations, “just” 18% effectively act to pursue “Monetary Rewards”, effectively demonstrating a misleading interaction between perceived nature and effective action behaviours (Figure 50). The final part of the Survey tried to conclude the analysis with respect to the Real Estate Crowdfunding Industry. Firstly, interviewed have been asked about their previous experiences and approaches with Real Estate Investments. Of the 59% of sampled potential investors that effectively had invested in the past in RE instruments (Figure 51), 37,5% invested through “Direct investment in rental properties”, 25% invested in “Equity REITs”, 12,5% in “Mortgage REITs”, 12,5% in “Residential Property Flipping”, 8,3% in “Real Estate Mutual Funds” and 4,2% in “Wholesaling houses” (Figure 52). Going straight to the point, and after having acquired first signs about sample approach with Real Estate, interviewees have been asked about their previous experiences with RECF. “Just” 17% of sampled individuals had experiences with RECF in the past (Figure 53); however, looking at interviewed individuals’ willingness to invest in the future in RECF, percentage of positive responses increases to 73% (Figure 54), with 100% of investors that in the past dealt with RECF reconfirming their willingness. As done for Real Estate platforms’ representatives, the study proceeds with investigating individuals’ behavioural levers to act in the RECF market. 51,22% of sampled individuals is willing to invest in RECF for “Monetary Returns”, 17,07% for “Curiosity”, 9,76% for “Fun”, 7,32% for “Social Esteem”, 7,32% for Altruism, and a smaller part for “Regional Identification”, “Direct Identification” and “Others” (Figure 55). Valuable and worth insights have been acquired asking through open questions and in a conversational way which are, for them, the perceived advantages and disadvantages arising through RECF investments (Table 8 and Table 9). Finally, sampled potential investors have been interrogated about their perceptions and thoughts on RECF Legal Framework appropriateness for investments. Partially in line with Real Estate representatives’ answers, 78% of interviewed stated they do not perceive the actual Regulatory landscape as appropriate in accommodating investments in RECF (Figure 56).

5.3) DISCUSSION

This part of the Research will be dedicated to deconstructing, reformulating and analysing data in order to provide answers to Research Questions. First question this study aims to address is: "*Which are the intrinsic/extrinsic motivations making stakeholders (Real Estate Crowdfunding companies/platforms and small investors/crowdfundees) engage/not engage in Real Estate Crowdfunding practices?".* Among the 13 Real Estate platforms interviewed, as looked in the above section, 54% explicitly admit operating through Crowdfunding in collecting money to fund projects (Figure 21). On a future perspective, 82% of interviewed platforms is programming to introduce Crowdfunding in their Real Estate practices (Figure 61). Of those already collecting money through Crowdfunding, 100% expects to continue with this methodology. Beyond numbers and time frame needed to open the doors to Crowdfunding implementation, the focus should be on effective motivations to introduce Crowdfunding in their Real Estate Platforms. What leads the executives mind in restructuring platforms operativity through Crowdfunding are three main factors: "Accessibility of Funding", "Crowdfunding as a way to scale the growth of the industry" and "Alternative financing to ordinary funders" (Figure 23). Remembering Sigar "relative new ventures fail in raising money from institutional investors because of not-high-enough growth rates"; in the Real Estate industry, failure should not be imputed to low growth rates; rather, it should be linked to the complex and limiting system of Real Estate accredited investors. In other terms, accessibility of funding and alternative financing to ordinary funders is perceived as key by Real Estate organizations for expansion into the "Crowdfunding Jungle". 85% of sampled executives think RECF should be effectively opened to all investors (Figure 28), maximising the exploitation of the crowd, rather than relying only on accredited ones. Limiting the accessibility of investments to a small number of investors would mean not "surfing the growth wave" of the Real Estate Crowdfunding market, expected to grow at 89% in E.U. (Figure 15) and 58,30% in U.S. (Figure 16) over next five years. All this together justify the triumvirate above descripted, supported by answers provided by the sample. The other side of the coin is represented by motivations possibly hindering Crowdfunding introduction in Real Estate. Looking at results, representatives seem to be "fearless" regarding the main drivers of "Crowdfunding pessimism", with a little percentage of them attributing barriers to entry in RECF to potential for fraud and scarce ability of initiators or founders (Figure 24). Even though, a large majority of interviewed described as "Other" reasons to not implement Crowdfunding in Real Estate. Trying to assume what they mean with "Others", it seems enough obvious the link to market specific issues, particularly with the complex nature of relationships through online platforms and attitude of developers. In conclusion, motivations pulling RE executives to leverage the magnitude of Crowdfunding is resumable in accessibility, scalability and openness to the wider definition of investor, crossing the privileged position of accredited investors. Clarified sampled executives propension and reasons for Crowdfunding implementation, it is worth to see the "market counterpart": the crowd. Among the 41 sampled potential investors, 59% invested in the past in market securities (Figure 35), with 50% investing in Bonds (Figure 36); this justify the return distribution compared to the Real Estate market average: 92%

underperformed the average 10% RE return (Figure 38). Further, 73% of interviewees define himself as driven by “Extrinsic motivations” when investing and the remaining 27% driven by “Intrinsic Motivations” (Figure 40). Going deeper in our analysis, surprisingly 54% of interviewed already invested in Crowdfunding (Figure 42), with motivations to participate being very disparate. Although the main driver for action is “Monetary Rewards”, “Fun”, “Altruism” and “Social Esteem” arise as additional lever of motivation (Figure 47), giving empirical evidences to *online philanthropic behaviour, online consumer behaviour, online peer-to-peer lending* and *online peer production* theories. However, when asked for motivations to not participate in Crowdfunding, their answers have been more heterogenous, ranging from “Lack of Proper Regulation” to “Disclosure confusion” (Figure 48). It is relevant to preliminary test the reliability of these answers. A double check is provided by testing the perceived nature of individuals declaring to be moved for “Monetary Rewards” (Figure 49) and the number of intrinsic motivated individuals moved by “Monetary Rewards” (Figure 50). Further, for extrinsic motivated, preference for Crowdfunding investment model tend to Equity-based model and Reward-based model (Figure 45), coherently with their perceived investment nature; similarly, intrinsic motivated are equally coherent, since their preferred Crowdfunding investment model is Donation-based (Figure 46). Fortunately, results look coherent enough to go straightforward to the point: crowd motivations to invest in RECF. Here the study wants to compare Real Estate executives’ perceptions on drivers making the crowd invest in RECF with the crowd’s effective perceived motivations to invest with this methodology. Almost the totality of executives think small individuals are willing to invest in the Real Estate Crowdfunding market to take benefit of the higher-than-average returns of the industry (Figure 31). Verifying the adequacy of executives opinions, and stated potential investors’ willingness to invest in the future in RECF (Figure 54), it is highlightable the relevance “Monetary Rewards” has for them in investing in RECF, but lower as perceived by executives in the market, with other motivations emerging, like “Self-esteem”, “Regional Identification”, “Direct Identification”, “Fun”, “Curiosity”, “Altruism” (Figure 55). Again, before making any conclusion on data acquired, it is important to test reliability of data. Figure 58 and Figure 59 give evidence by comparing expressed motivations for acting in Crowdfunding and motivations for acting in RECF, with positive enhancement for validation. However, it is early to make conclusions. Coming back to executives’ perception on potential investors, they cumulatively think the crowd perceive investment in RECF as a way for achieving higher returns (Figure 34), with higher level of required trustworthiness and less risky practice (Figure 33). However, comparing this statement with potential investors’ declarations on perceived advantages and disadvantages of investing in RECF (Table 8 and Table 9) some discrepancies are present. Beyond recognizing the high yield of return achievable by investing in Crowdfunding with the underlying solid Real Estate market even if with a low stake of investment, what escaped from executives consideration is, in fact, the intrinsic dimension of the investment for the crowd: comments like “Participate in the creation of something great and real”, “Helping the realization of buildings for social purposes”, “Support a social cause, for example people not having the possibility to dispose of an house”, “Sense of success of investing in Real Estate”, “Curiosity of relationship management with developers” punctually exemplify this missing piece in Real Estate companies' perception on potential investors. Going further, representatives think the crowd would perceive RECF investments as less risky compared to other types of investment within and beyond the reference industry. In reality, looking at potential investors' declarations of perceived disadvantages, "obstructions" in accessing this investment category is resumable in fear of regulatory compliances, lack of minimum industry knowledge, long holding period, absence of a secondary market, low liquidity level and, finally, perceived high-risk nature of the investment. Trying to assess conclusions, RECF represents today an attractive investment method for the crowd and a good exploitation strategy for platforms operating in the industry. On one side, RE are moved mainly by accessibility of funds, alternative financing and possibility for market scalability. However, as happens for any other market, a good "selling strategy" would require understanding market needs and problems, customers' approach and "fears". About RECF, it seems like platforms' executives impute crowd motivation to act in RECF just to high-than-average returns scalable or, in other terms, "Monetary Rewards", without involving in anyway intrinsic motivations connected to philanthropic investment theories. Further, they assume potential investors perceive RECF investments as low risk profile investments. As saw by survey proposed, executives' statements are not confirmed; indeed, they are denied. It would be fundamental for RE platforms to consider customers' intrinsic motivations and scopes in value proposition to acquire a competitive advantage in the Real Estate Crowdfunding Industry landscape, handling potential investors' risk perception of RECF investments, broaden the bunch of crowd disposable. A more comprehensive approach is needed, where platforms learn from the crowd, and the crowd receive what learned by platforms, in a value-creating loop. Second Question to be answered is: *"Which are the economic and social benefit experienced/perceived by stakeholders engaging in Real Estate Crowdfunding practices with respect to other forms of investment? And which the potential drawbacks arising?".* Starting from Real Estate companies, 54% of interviewed representatives explicitly confirm that their company is already implementing Crowdfunding in its processes (Figure 21), and 82% willing to implement it in the future (Figure 61). Going deeper, and assuming average return from Real Estate Investment, 69% of companies achieves return below or on average (Figure 20). What is impressive is that within 31% of companies achieving returns higher than average, 71% is represented by companies explicitly admitting implementing Crowdfunding in its practices. Trying to corroborate the thesis of higher returns reachable through RECF for platforms, 85% of interviewees think the way a Real Estate platform collect money could impact on Return on Investment (Figure 22), 77% think implementing Crowdfunding platforms would require lower time to collect money needed for projects (Figure 27) and 85% is willing to extend accessibility to the broader range of subjects (Figure 28). Overall, Real Estate Crowdfunding pursues lower cost of capital for owners and developers and higher risk-adjusted returns for investors by disintermediating the "middlemen class" generally standing between lenders and borrowers (Schonberger M., Koehler D.W., 2017). This idea is supported by statements resulting from Surveys, in which executives believe with conviction that opening Real Estate to all investors, not only accredited-ones, implementing Crowdfunding would significantly reduce the time needed to collect money for project initiations, impacting on time lapse for project realization and, consequentially on platforms returns. In fact, if it is true that longer time horizon reduces risks decreasing return volatility, it is further true that perfectly applies to stock and bond market, where high liquidity and secondary market development are key resources (Zellweger T., 2007). In Real Estate, returns are averagely higher than other securities, with time frame including also collecting period over holding period. Impacting on the time needed to acquire funds to support projects would, in the same way, significantly impact on returns with same level of risks. Even though having misleading assumptions on investors' motivations to engage in Crowdfunding and their risk perception, as looked before, 62% of interviewed executives correctly think small investors are more willing to invest in RECF compared with other types of investment (Figure 30), with 92% believing returns achieved by the crowd would be higher compared to other securities (Figure 25). In fact, 73% of sampled potential investors is willing to invest in RECF in future (Figure 54). Beyond investigating symmetry between executives' idea of market participation and potential investors' willingness to participate in this innovative trend, what is important to know are upsides acquirable by the crowd. Looking at potential investors perceived advantages experienceable (Table 8), executives' theory of potential higher yield of return for investors seems to be confirmed. Moreover, investors' perceptions on advantages exploitable through RECF are also possibility to invest lower stake of money, participate in a solid market like Real Estate, possibility to invest a lower stake in Real Estate and, for a smaller part, relative and absolute lower risk. For "relative risk" it is intended lower risk perceived compared to other types of investment in Real Estate; for "absolute risk" it is intended lower risk perceived compared to other types of securities. Finally, last advantage clearly described is the possibility to reach a higher portfolio diversification by introducing a totally new way of investing. In fact, even if the stock market has enjoyed upswing in recent years, nobody has a "magic 8 ball" able to predict the future trend (PeerRealty, 2020); investing in a new class of assets would increase the likelihood of assuming lower risk and hedging portfolios from high volatility levels. Once again, upsides should be always balanced with possible downside. Looking back, comparing executives' ideas on investors' risk perception for RECF (Figure 33) and effective investors' risk perceptions (Table 9), some misalignments arise. Having already talked about investors perceptions on RECF risk, additional disadvantages perceived are displayed from interviews. Potential investors are sometimes worried about the confusion involved in the development process, low ability or expertise from management and, consequentially, potential for fraud. Linked together, managing Real Estate project through online platforms would require high management capacities by creators and developers, where punctual and full disclosure of information and transparency could be crucial to reach, attract and retain the crowd. The situation even worsens considering the lack of direct contact between initiators, management and developers and crowdfundee. As emerge from the study, 100% of RE executives correctly affirms trustworthiness is even more important in RECF compared to other investments for actual and potential investors; what is remarkable is the ability by platforms to implement due diligence processes in an effective, constant and limpid way, overcoming the possibility of lack of direct contact flowing into sense of fraud. Others are afraid about the difficulty to "exit the investment" or the "personal lack of market knowledge". For what concerns the former, the low liquidity of RECF investments compared to other investments is clear and evincible; however, some platforms are already proceeding with implementing dedicated secondary markets within platforms allowing to dismiss the investment before completion and reinvest money in other, best-fit projects. The latter is strictly connected with the psychological perception of investors; however, the due diligence and transparency demanding process could "blur" the limit between "who knows about the market" and "who does not know about the market", making the investment process simpler and increasing, in a circular system, trustworthiness, so willingness to invest. Everything is linked. Finally, the majority of potential investors worry about the lack of proper regulation or impossibility to correctly interpret it. 78% of sampled potential investors think the actual regulatory landscape is not "ready" or "opportune" to support Crowdfunding in Real Estate (Figure 56). However, differently from previous drawbacks, lack of proper regulation is in part perceived also by RE executives. In fact, 46% of interviewed representatives share the investors' fear about Crowdfunding and Real Estate Crowdfunding law (Figure 26). A deep analysis of current Regulatory Framework in Crowdfunding and Real Estate Crowdfunding has been already provided, highlighting how broaden accessibility to a huge number of individuals and cross-border dimension of transaction has increased confusion in this field. Even though, progresses have been significantly made in last years, particularly in the U.S. Market through the JOBS Act; in fact, 3 out of 4 of the U.S. interviewed platforms think the regulatory framework is developed enough to support RECF growth. On the opposite side, more concerns arise with the E.U. market analysis, where developments are in progress. What matters is the effective ability to actuate them and the positive magnitude dispositions will have on every-day practices. Looking at the operators side, RECF platforms and the crowd should, from their side, continuing spreading the efficiency and empowering effects of Crowdfunding in Real Estate, marketing the necessity to recognize and officialise this new market, and giving evidence of the benefices that could arise by institutionalising practices for all parties involved. Moreover, a well-structured Regulatory Framework would significantly reduce the likelihood of experiencing further Real Estate crisis or bubbles, even if liberalizing this sector from bolt cutters imposed in the last decade. Finally, last question the study want to address is: *"Is there a link between «better economic and social results/relationships» and «Crowdfunding in Real Estate?"*. Answer to this question is a natural implication of what analysed so far. Executives' expected higher return on investment for RE platforms (Figure 22), executives' expected higher returns for private investors from the crowd by engaging (Figure 25) and potential investors' perception of higher yield when compared to other investments (Table 8) offer a broader and exhaustive panoramic of benefices for the RECF as a whole. Higher expected economic returns would act as an attraction and retention lever for participation, enlarging progressively the crowd dimension interaction in this market. However, higher involvement of crowd could not prescind from considering intrinsic motivations pushing individuals to engage in Crowdfunding first and RECF next. Avoiding considering factors like Fun, Curiosity, Experimentation, Altruism, Identification and other psychological traits of investment would mean sacrifice philanthropic postulates of social engagement in Crowdfunding and, so, making a valid and reliable assessment of the phenomenon. This should be the key of lecture for executives when trying to spread

Crowdfunding in their processes; not just having in mind economic return and yields for investors. Indeed, beware of psychometric elements affecting investors choices. Beware that money is not everything for investors. Obviously, it is a worth part. But it is not everything. It is just a slice of the pie. A very complicated slice, affected by motivations, behaviours, past experiences, preferences. Not just money. Merge together platforms' and investors' effort to mould the current Regulatory Framework would be fundamental. Obviously assuming governmental institutions and associations commitment to implement game-changing dispositions. Just with this 360° review of the industry platforms and the crowd would allow the RECF industry to achieve the expected average 73% growth for the market.

CONCLUSION

Research analysis tried to gain empirical evidences on three different Real Estate Crowdfunding dimensions: which are the motivations making platforms and individuals engage in RECF practices, which are the advantages and disadvantages for parties involved and the existence of a link between better economic performance for the industry and companies and crowdfunding in Real Estate. Executives implementing or attempting to implement crowdfunding in their businesses are mainly moved by "Accessibility of Funding", "Crowdfunding as a way to scale the growth of the industry" and "Alternative financing to ordinary funders". Literature evidenced the ability of Crowdfunding in providing a valid alternative to collect money; the key of success is the engagement with a broader range of individuals. Applied to RE, attracting the crowd would mean not only differentiating the source of capital, but also overcome the difficulty in dealing with accredited investors. Flipping the coin, what "threaten" executives from opening the doors to RECF are Real Estate specific issues, like developers' attitude and relationships' complex nature. What is fundamental for this analysis is the partial mismatch in executives' thoughts on individuals' motivations to invest in RECF and effective potential investors' perceptions. While executives think individuals are mainly moved by "Monetary Rewards" and perceive RECF as less risky, on the opposite, interviewed potential investors still perceive RECF enabled to totally hedge from investment risk. Moreover, statements like "Participate in the creation of something great and real", "Helping the realization of buildings for social purposes", "Support a social cause, for example people not having the possibility to dispose of an house", "Sense of success of investing in Real Estate", "Curiosity of relationship management with developers" punctually exemplify this missing piece in Real Estate companies' perception of potential investors. It is fundamental for executives truly understand what moves the crowd in interacting with Crowdfunding in Real Estate, learning about the philanthropic view on crowdfunding interaction, implementing it in their business plan. This is the only best-fit strategy to enlarge the crowd dimension and, effectively, exploit their perceived advantages of RECF: diversification of money sources and higher disposition of funds. This is even more tightening considering two main advantages perceived by executives through Crowdfunding: broader range of individuals and lower time to collect money. Time horizon heavily impact on return and perceived risk of investments but is not the only source. In turn, the latter is conditioned by the liquidity level of the underlying market. RECF is still a low liquidity market; managing the creation of secondary platforms for investment exchanges would be fundamental in handling investors' perceived risk and volatility. Lack of a secondary market is even more relevant since perceived as a main disadvantage of RECF also by potential investors. In fact, if it is true that individuals perceive lower stake of money investable, solid underlying market, and, in part, lower risk compared with other securities and other RE investment instruments, these features could be undermined by drivers like project development confusion, lack of management ability and skills, scarce personal knowledge of the market and lack of property regulation. A proper due diligence and cohesiveness on pulling policy development would be key in allowing the industry to grow and exploit its potential, stimulating trustworthiness and confidence with practices. As natural consequence, familiarity with RECF would be spurred, significantly reducing the overall risk sensed. Describing the way RECF could affect and determine better economic performances for the industry is a natural consequence of what stated so far. Executives consideration of individuals' intrinsic motivations for interacting in RECF would be fundamental to spread its diffusion; higher intrinsic motivation consideration mean moulding offer based on the demand, assessing needs, creating a solid customer base and increasing retention rate. Broaden crowd base is not the only issue. Retain investors is important as well. This 360° assessment of individuals is fundamental to really exploit higher than average returns, great portfolio diversification, lower costs and alternative financing. Changes in executives' behaviours need to be supported by radical changes in regulatory framework, that should be addressed by principles of cost-effectiveness, uniformity, cohesiveness and efficacy. First steps have been moved. What will be key is the persistence, tenacity and dedication of all actors involved in creating the best conditions to make the most of a 73% - growing market.

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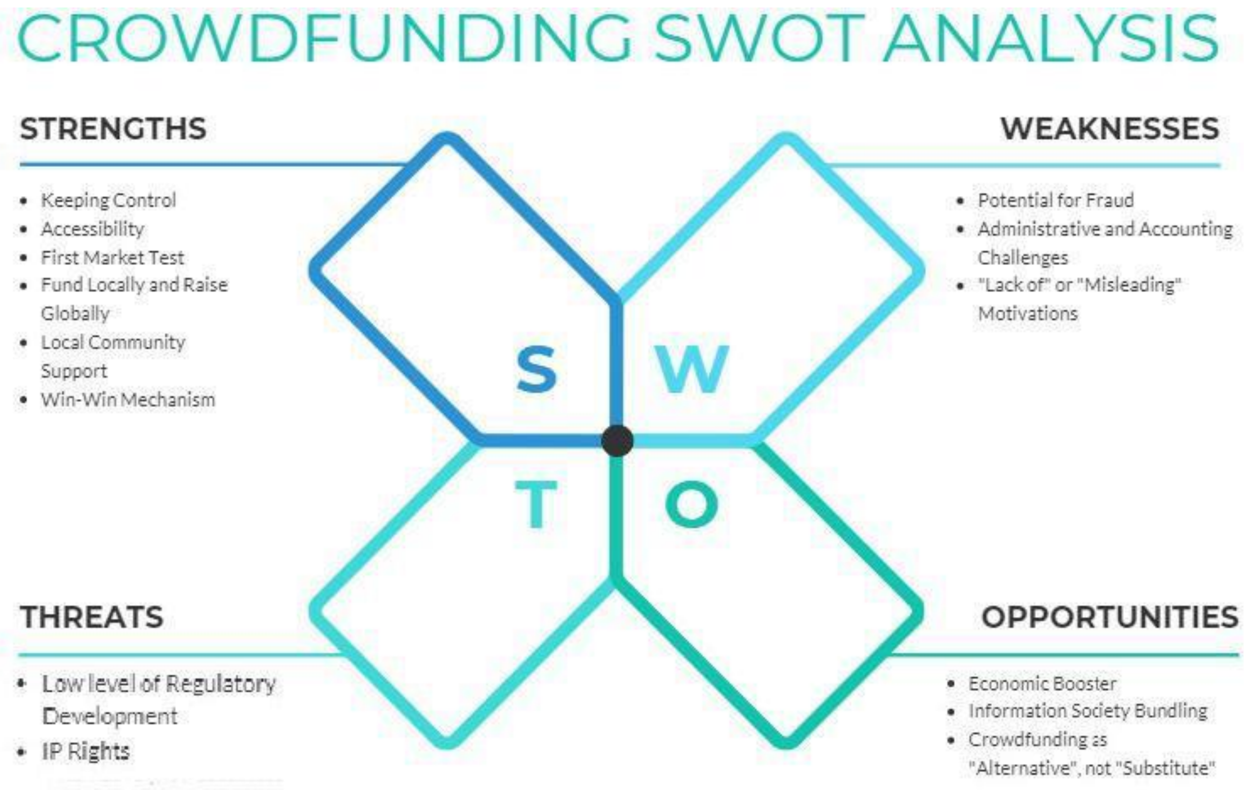
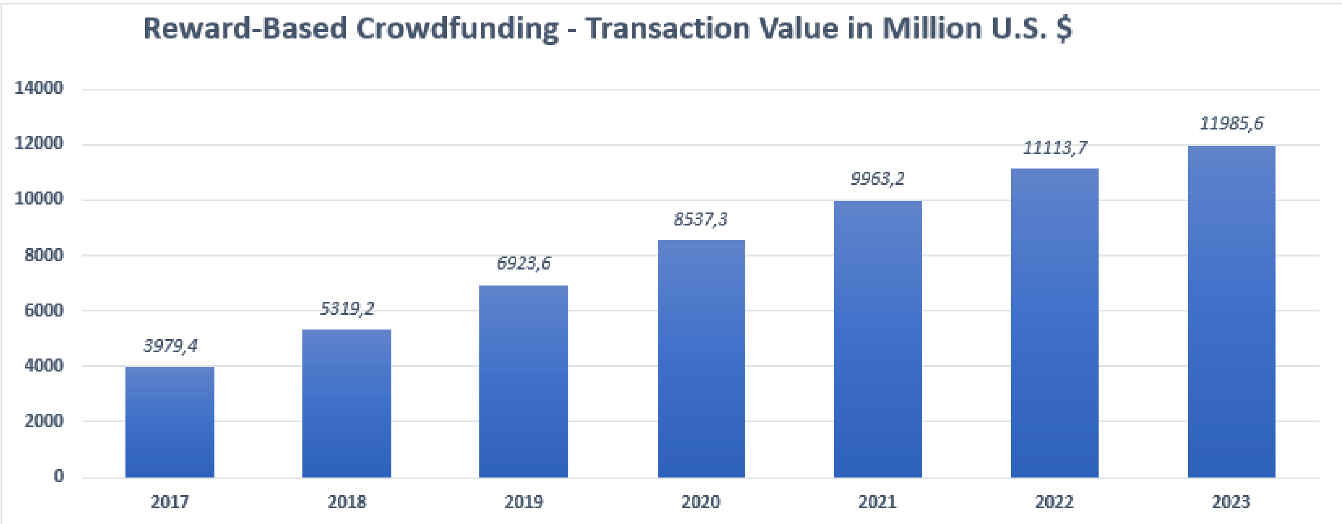
FIGURES AND TABLES

Figure 1 - Crowdfunding Swot Analysis



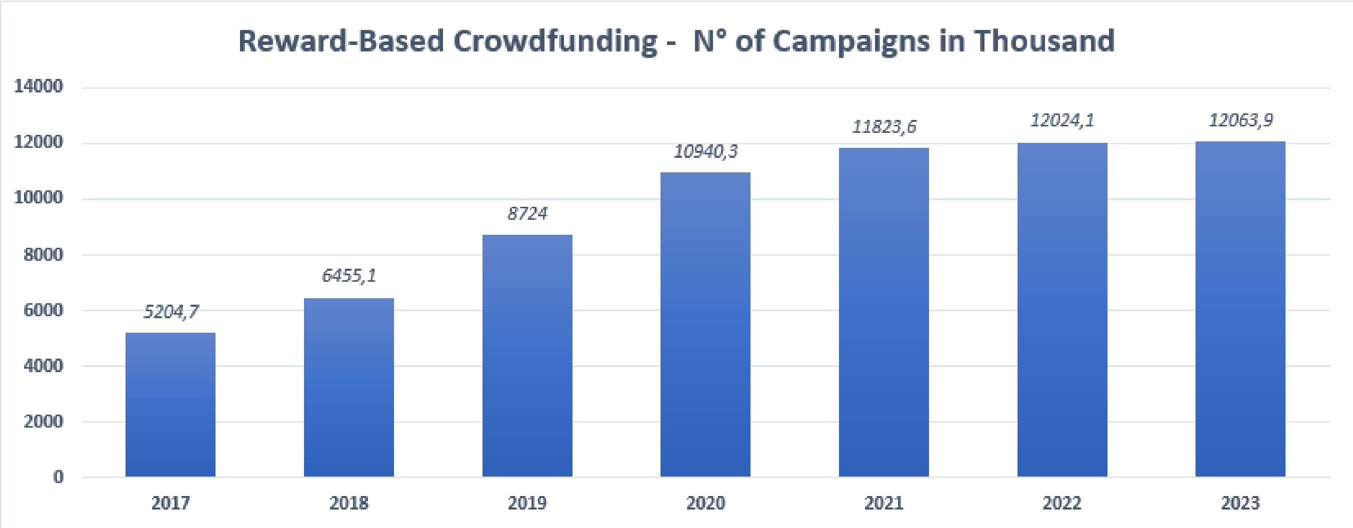
Source: This Paper

Figure 2 - Reward-Based Crowdfunding - Transaction Value in Million U.S. $



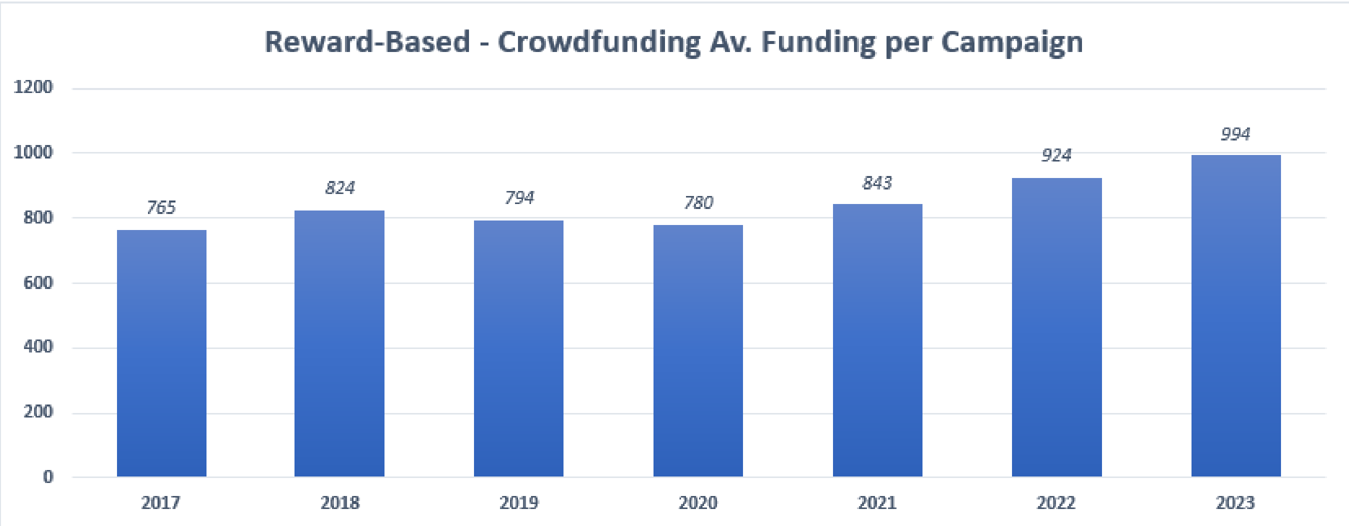
Source: Statista, "Crowdfunding – Worldwide", 2019

Figure 3 - Reward-Based Crowdfunding - N° of Campaigns in Thousand



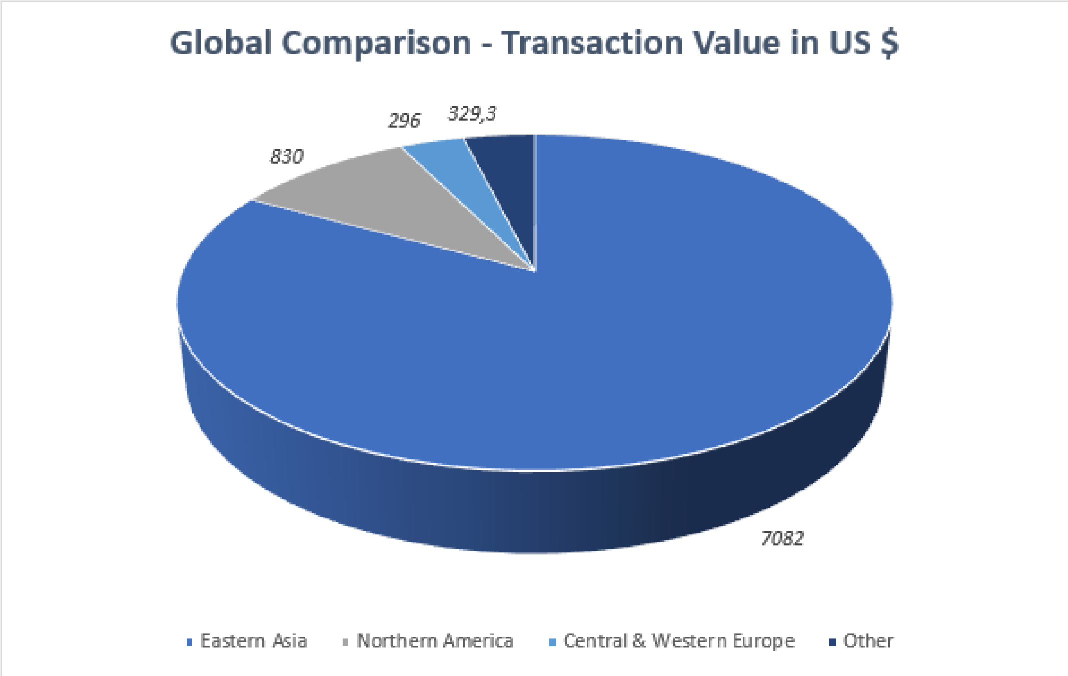
Source: Statista, "Crowdfunding – Worldwide", 2019

Figure 4 - Reward-Based - Crowdfunding Av. Funding per Campaign



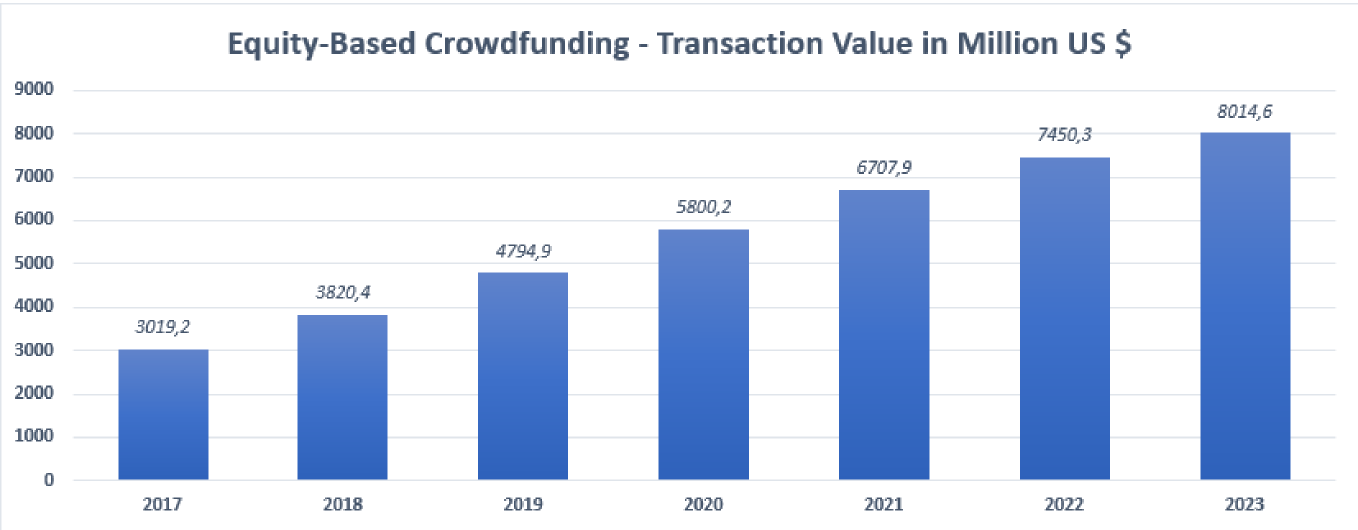
Source: Statista, "Crowdfunding – Worldwide", 2019

Figure 5 - Global Comparison - Transaction Value in U.S. $



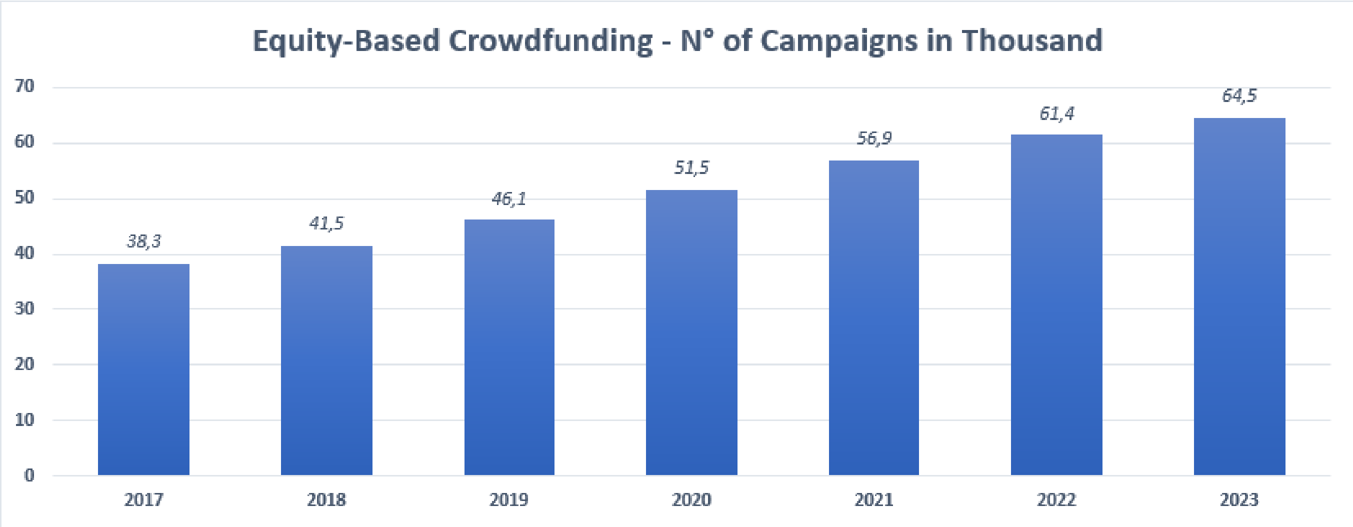
Source: Statista, "Crowdfunding – Worldwide", 2019

Figure 6 - Equity-Based Crowdfunding - Transaction Value in Million U.S. $



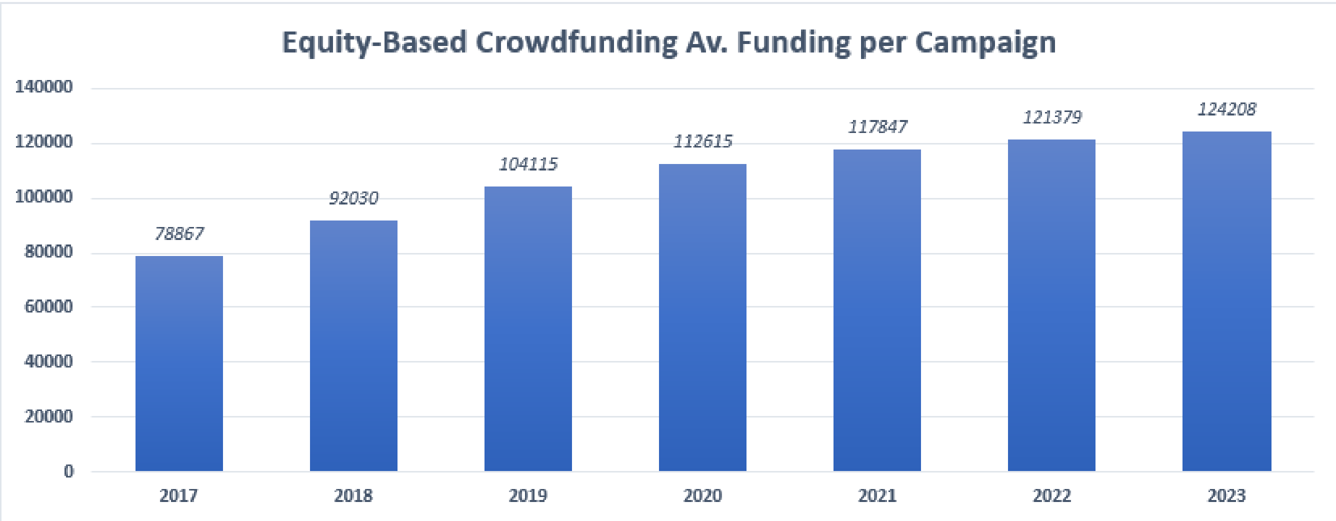
Source: Statista, "Crowdinvesting – Worldwide", 2019

Figure 7 - Equity-Based Crowdfunding - N° of Campaigns in Thousand



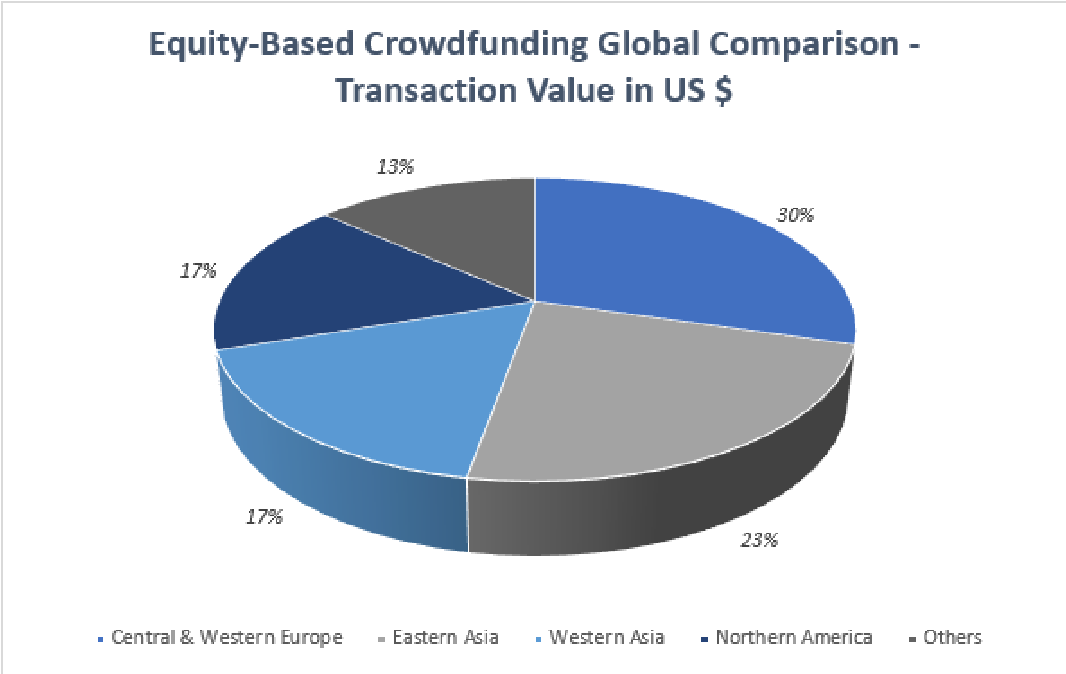
Source: Statista, "Crowdinvesting – Worldwide", 2019

Figure 8 - Equity-Based Crowdfunding - Av. Funding per Campaign



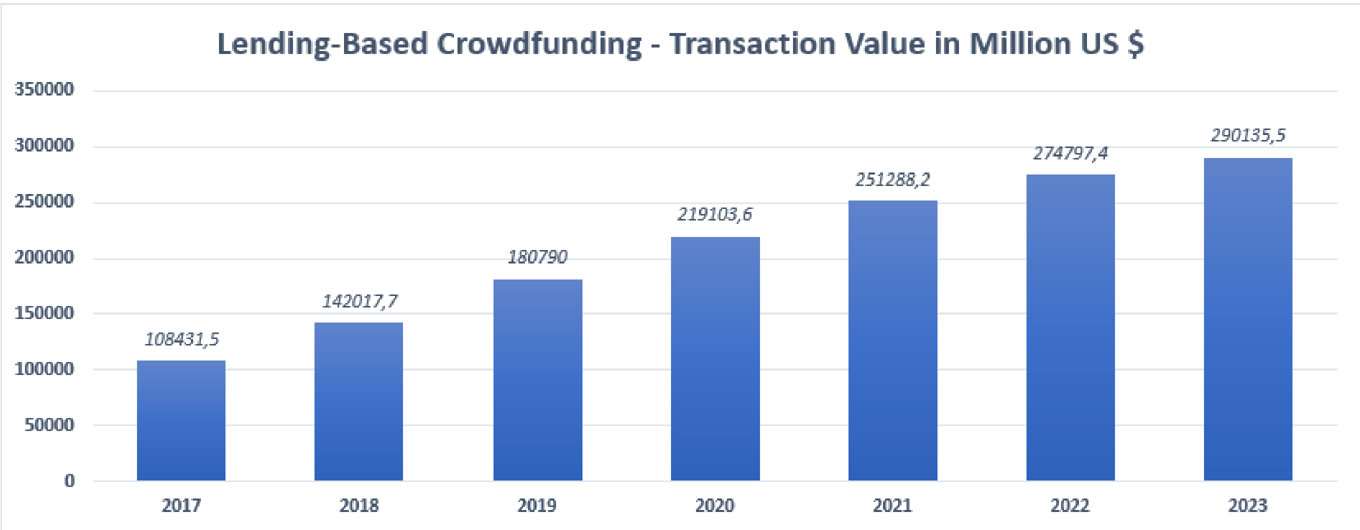
Source: Statista, "Crowdinvesting – Worldwide", 2019

Figure 9 - Equity-Based Crowdfunding - Global Comparison - Transaction Value in U.S. $



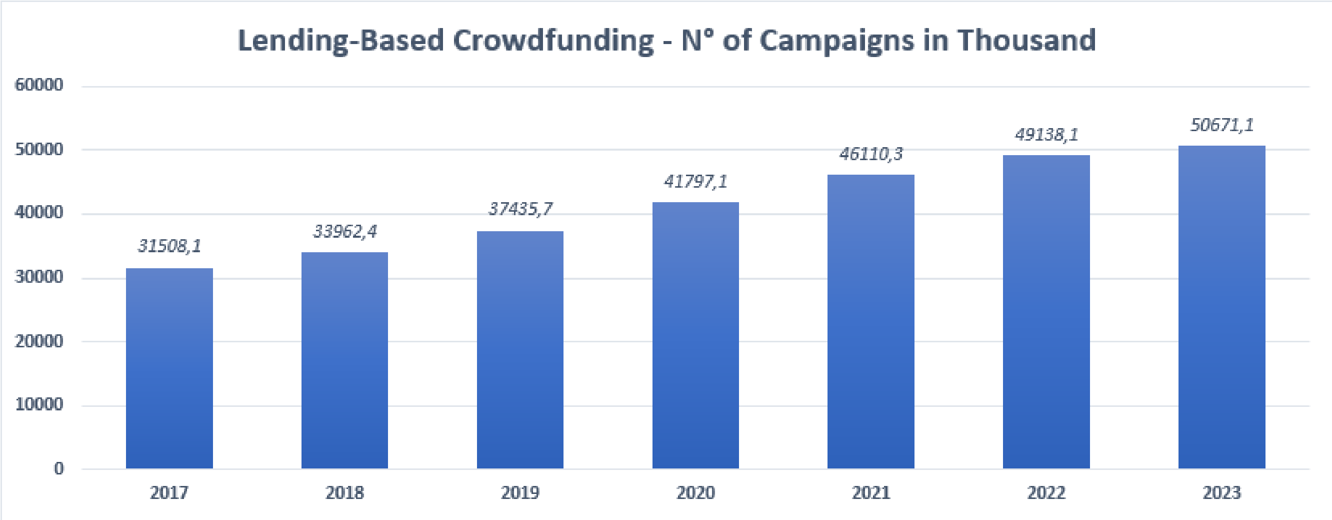
Source: Statista, "Crowdinvesting – Worldwide", 2019

Figure 10- Lending-Based Crowdfunding - Transaction Value in Million U.S. $



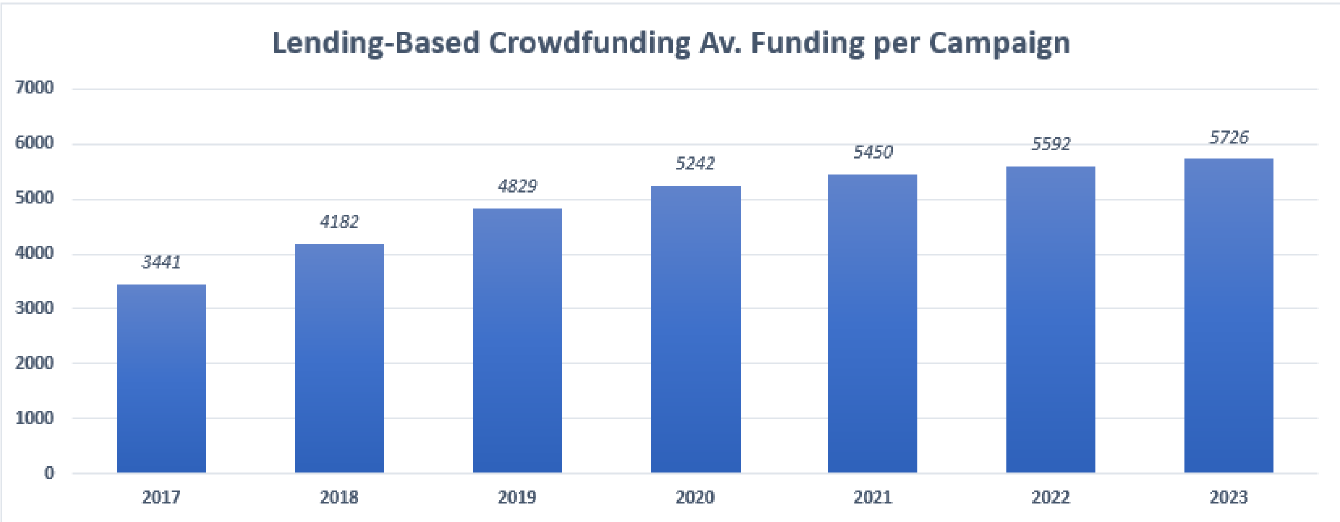
Source: Statista, "Crowdlending – Worldwide", 2019

Figure 11 - Lending-Based Crowdfunding - N° of Campaigns in Thousand



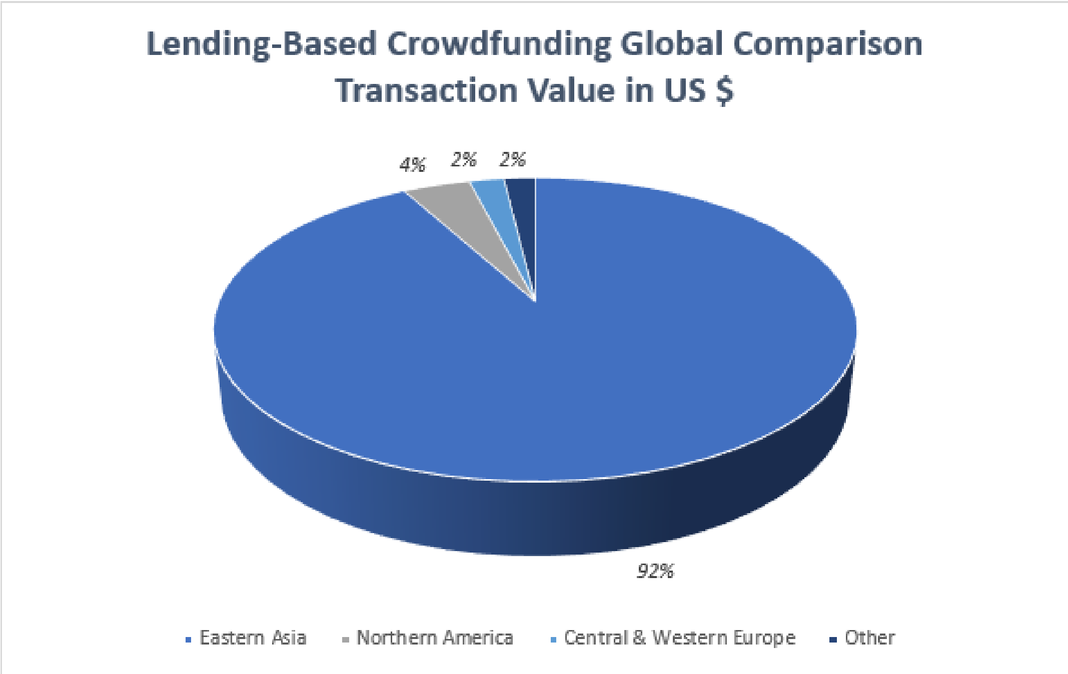
Source: Statista, "Crowdlending – Worldwide", 2019

Figure 12 - Lending-Based Crowdfunding - Av. Funding per Campaign



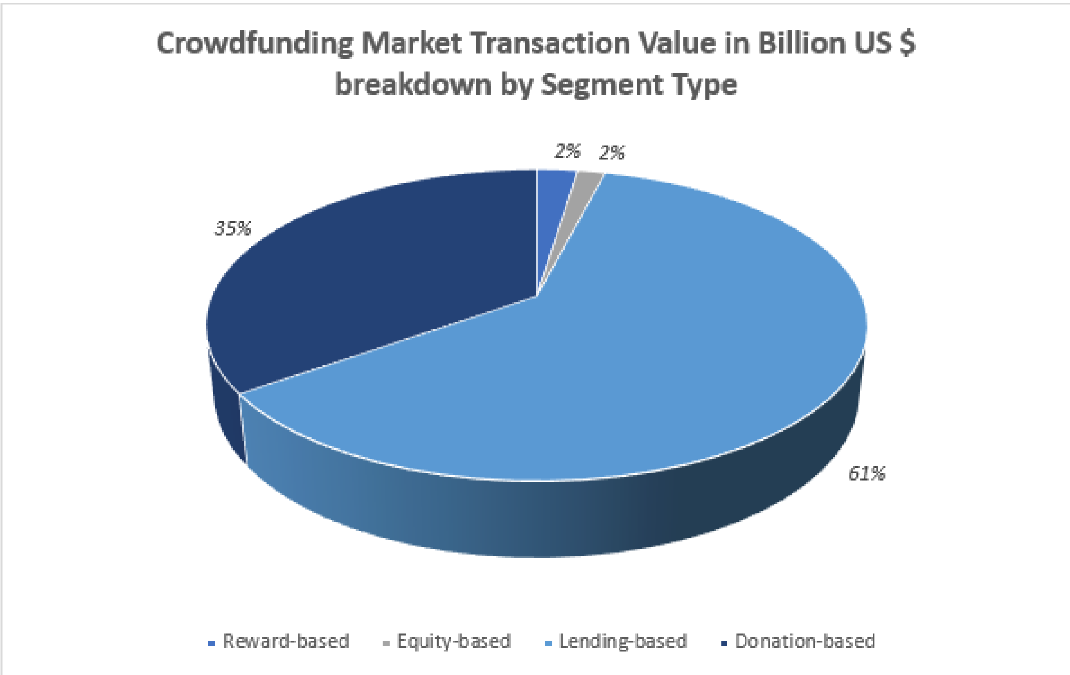
Source: Statista, "Crowdlending – Worldwide", 2019

Figure 13 - Lending-Based Crowdfunding - Global Comparison - Transaction Value in U.S. $



Source: Statista, "Crowdlending – Worldwide", 2019

Figure 14 - Crowdfunding Market Transaction (Value in Billion U.S. $) - Breakdown by Segment



Source: P2PMarketData, "Crowdfunding Statistics Worldwide: Volume by Country and Industry Trends, 2019

Figure 15 U.S. Real Estate Crowdfunding Market Size - Forecasting

E.U. REAL ESTATE CROWDFUNDING MARKET SIZE - FORECASTING															
Growth		250%	157%	19,63%	19,63%	19,63%	19,63%	19,63%	89,19%	89,19%	89,19%	89,19%	89,19%	58,30%	58,30%
Time	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Mkt Value	$ 0,06	$ 0,20	$ 0,51	$ 0,61	$ 0,74	$ 0,88	$ 1,05	$ 1,26	$ 2,38	$ 4,51	$ 8,53	$16,14	$30,53	$48,32	$76,50

Source: This Paper

Figure 16 - E.U. Real Estate Crowdfunding Market Size - Forecasting

U.S. REAL ESTATE CROWDFUNDING MARKET SIZE - FORECASTING															
Growth		250%	157%	89,19%	89,19%	89,19%	89,19%	89,19%	58,30%	58,30%	58,30%	58,30%	58,30%	58,30%	58,30%
Time	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Mkt Value	0,16	0,56	1,4392	2,72286	5,15146	9,74618	18,4391	34,8854	55,2235	87,4189	138,384	219,062	346,775	548,945	868,98

Source: This Paper

Figure 17 – Main RECF Platforms

Main RECF Platforms	
Fundrise	4Crowd
iFunding	AcreTrader
Prodigy Network	Walliance
Realty Mogul	EstateGuru
Crowdestate	Crowdestor
Housers	PeerStreet
Reinvest24	EquityMultiple
Bulkestate	Streitwise
Realty Shares	YieldStreet
The Bottom Line	Alphaflow
Trusters	Rich Uncles
Re-Lender	Groundfloor
Build Around	Crowdrealestate
BitOfProperty	Lendy
Exporo	Lymo
LendInvest	PropertyMoose
PropertyPartner	Rendity
The House Crowd	Zinsland

Source: This Paper

Appendix 1 – Investor Survey Draft

Investor Survey

Welcome to this Survey!

The aim of the research is to gain empirical evidence about the feasibility of implementing Crowdfunding in the Real Estate market. In the last decade so many platforms have born in the Real Estate Crowdfunding landscape.

Moreover, the study will try to highlight which are the main motivations pushing operators in the market to operate through this innovation, which are the economic advantages compared to other forms of investment (both in Real Estate and the broader investment spectrum) and how economic advantages could be supported by social benefit for the actors interested.

Your participation would be fundamental in building up a concrete empirical basis for the research.

Further, once ended, the Research will be discretionally shared with participants so You all can see the results of your efforts.

Thank you in advance!

First part: Interviewee introduction

1. I give my consent to use data collected through this interview for purely academic purposes

Yes No

2. Do you work for a company or are you a freelancer?

Company Freelancer

Second part: Interviewee's investment habits

3. Have you ever invested on financial securities?

Yes No

4. On which type of securities have you invested/would you invest?

(Insert type of securities)

5. Which is the average annual return gained through investment in securities?

(insert annual return)

6. Do you consider yourself as a risk prone, risk neutral or risk adverse operator?

a) Risk prone

b) Risk neutral

c) Risk adverse

7. Are you moved more by intrinsic motivation (personal needs, social status, etc.) or extrinsic motivation (monetary rewards) when investing in securities?

a) Intrinsic motivations

b) Extrinsic motivations

Brief Description

This Brief Description is needed in order to support you through the next part of the Survey.

Reward-based Crowdfunding model: lender provide money to support a specific project in exchange for a specific future reward.

Equity-based Crowdfunding model: creators invest money receiving in exchange shares of the company they invest in.

Lending-based Crowdfunding model: funders give money obtaining at the due date the amount invested plus a monetary return in form of interest.

Donation-based Crowdfunding model: funders voluntarily donate their money with no expectations of any tangible reward.

Third part: Crowdfunding

8. Have you ever heard about crowdfunding?

Yes No

9. Have you ever invested through crowdfunding?

Yes No

10. Have you invested directly on crowdfunding or through a dedicated intermediary platform?

Directly Platform

11. In which of the following crowdfunding models did you invest/would you invest?

a) Reward-based model

b) Lending-based model

c) Equity-based model

d) Donation-based model

12. For which motivations have you invested/would you invest through crowdfunding?

a) Altruism

b) Curiosity

c) Fun

d) Reciprocity

e) Social Identification

f) Direct identification

g) Indirect Identification

h) Regional Identification

i) Self-esteem

l) Monetary rewards (profits, capital gains or conversion on invested capital)

j) Others

If “Others” please specify:

13. For which reasons you have not invested/would not invest in crowdfunding?

a) Potential for fraud

b) Disclosure confusion

c) It is time-consuming

d) Probability of scarce attitude by initiators/other funders

e) Lack of proper regulation

f) Limited possibility for projects/startups to scale the industry

g) High-risk nature of the investment

h) Intellectual Property Rights issues potentially arising

i) Others

Fourth part: Real Estate Crowdfunding

14. Have you ever invested in “Real Estate Investment Instruments”?

Yes No

15. In which type of investment have you invested/would you invest in?

a) Equity REITs

b) Mortgage REITs

c) Hybrid REITs

d) Direct investment in rental properties

e) Residential property flipping

f) Wholesaling houses

g) Real Estate Mutual Funds

h) Real Estate ETF

i) Real Estate Crowdfunding

l) None

16. Would you invest in “Real Estate Crowdfunding Instruments” in the future?

Yes No

17. Have you ever invested in the Real Estate Industry through Crowdfunding?

Yes No

18. For which reasons have you invested/would you invest through Real Estate Crowdfunding?

a) Altruism

b) Curiosity

c) Fun

d) Reciprocity

e) Social Identification

f) Direct identification

g) Indirect Identification

h) Regional Identification

i) Self-esteem

l) Monetary rewards (profits, capital gains or conversion on invested capital)

j) Others

19. Investing through Real Estate Crowdfunding, which advantage have you found/would you find compared to investing in other forms of investment?

(Insert advantages)

20. Investing through Real Estate Crowdfunding, which disadvantage have you found/would you find compared to investing in other forms of investment?

(Insert advantages)

21. Do you think that the actual legislative framework for Real Estate Crowdfunding is developed enough to protect investors while ensuring good investment opportunities?

Yes No

Gratings

Thank you for completing this survey!

Your help will be fundamental to empower the research basis and deepen this analysis.

Appendix 2 – Company Survey Draft

Company Survey

Welcome to this Survey!

The aim of the research is to gain empirical evidence about the feasibility of implementing Crowdfunding in the Real Estate market. In the last decade so many platforms have born in the Real Estate Crowdfunding landscape.

Moreover, the study will try to highlight which are the main motivations pushing operators in the market to operate through this innovation, which are the economic advantages compared to other forms of investment (both in Real Estate and the broader investment spectrum) and how economic advantages could be supported by social benefit for the actors interested.

Your participation would be fundamental in building up a concrete empirical basis for the research.

Further, once ended, the Research will be discretionally shared with participants so You all can see the results of your efforts.

Thank you in advance!

First part: Interviewee introduction

Name:

Surname:

Company You represent:

1) I give my consent to use my personal data for purely academic

Yes No

2) I give my consent to use data collected through this interview for purely academic purposes

Yes No

3) In which geographic areas does Your company operate?

(Insert answer)

4) In which of the following market sectors does Your company operate?

a) Residential Market

b) Offices

c) Industrial/Logistics

d) Retail

e) Multifamily

f) Alternatives (self-storage, data centers, medical offices, life science facilities, seniors and student housing)

Second part: Operative Questions

5) How do you think the Real Estate Market will evolve in the next decade?

a) The market will grow sharply

b) The market will grow slowly

c) The market will stay the same

d) The market will decrease slowly

e) The market will decrease sharply

6) Which is the average return on investment achieved by the company? (the answer should be a reference value considering all the investments in the different sectors)

(Insert answer)

7) How does Your company collect money to invest in the Real Estate projects?

(Insert answer)

8) Do you think the way a Real Estate Company fund its projects matter in terms of return on investment?

Yes No

Third part: Crowdfunding

9) Do you know what is crowdfunding?

Yes No

10) Has your company implemented/is going to implement Crowdfunding in its business?

Yes No

11) For which reasons Your company has implemented/would implement Crowdfunding in its business?

a) Keep control over the investor

b) Accessibility of funding

c) First "market test" for the project

d) Raise funding globally

e) Crowdfunding is a way to scale market growth

f) Take advantage of "information society"

g) Alternative financing to ordinary funders

h) Others

If "Others" please specify:

12) For which reasons Your company have not implemented/would not implement Crowdfunding in its business?

a) Potential for fraud

b) Disclosure confusion

c) It is time-consuming

d) Probability of scarce attitude by initiators/other funders

e) Lack of proper regulation

f) Limited possibility for projects/startups to scale the industry

g) High-risk nature of the investment

h) Intellectual Property Rights issues potentially arising

i) Others

If “Others” please specify:

13) Do you think implementing Crowdfunding in your business would affect positively or negatively returns?

Positively Negatively

14) Do you think the time needed to collect projects’ funding is higher or lower when using crowdfunding in Real Estate compared to traditional methods of funding?

Higher Lower

15) Do you think the actual legislation is accommodating the implementation of Crowdfunding in the Real Estate Industry?

Yes No

Fourth part: Investor habits

16) Do you think access to crowdfunding in the Real Estate industry should be “open” to all investors (even smaller ones) or reserved to “accredited” ones?

All investors Accredited only

17) Which do you think are the main investment forms used by investors in Real Estate?

a) Equity REITs

b) Mortgage REITs

c) Hybrid REITs

d) Direct investment in rental properties

e) Residential property flipping

f) Wholesaling houses

g) Real Estate Mutual Funds

h) Real Estate ETF

i) Real Estate Crowdfunding

l) Others

If “Others” please specify:

18) Do you think small investors are more/less willing to invest in Real Estate Crowdfunding compared to other types of investments above mentioned?

More Less

19) Which do you think are the main motivation pushing the crowd to invest in Real Estate through crowdfunding?

a) Altruism

b) Curiosity

c) Fun

d) Reciprocity

e) Social Identification

f) Direct identification

g) Indirect Identification

h) Regional Identification

i) Self-esteem

l) Monetary rewards (profits, capital gains or conversion on invested capital)

j) Others

20) Which of the mentioned factors do you think could affect the crowd when engaging in Real Estate Crowdfunding?

a) Geographical provenience

b) Cultural factors

c) Opportunity cost

d) Internet accessibility

e) Switching costs

f) WOT

21) Do You think trustworthiness is more important/less important for investors when engaging in Real Estate Crowdfunding?

More Less

22) Do You think investors perceive Crowdfunding in Real Estate as riskier/riskless practice compared to other investments?

Riskier Riskless

23) Do you think investors would achieve higher/lower returns through Crowdfunding in Real Estate compared with other investments?

Higher Lower

Gratings

Thank you for completing this survey!

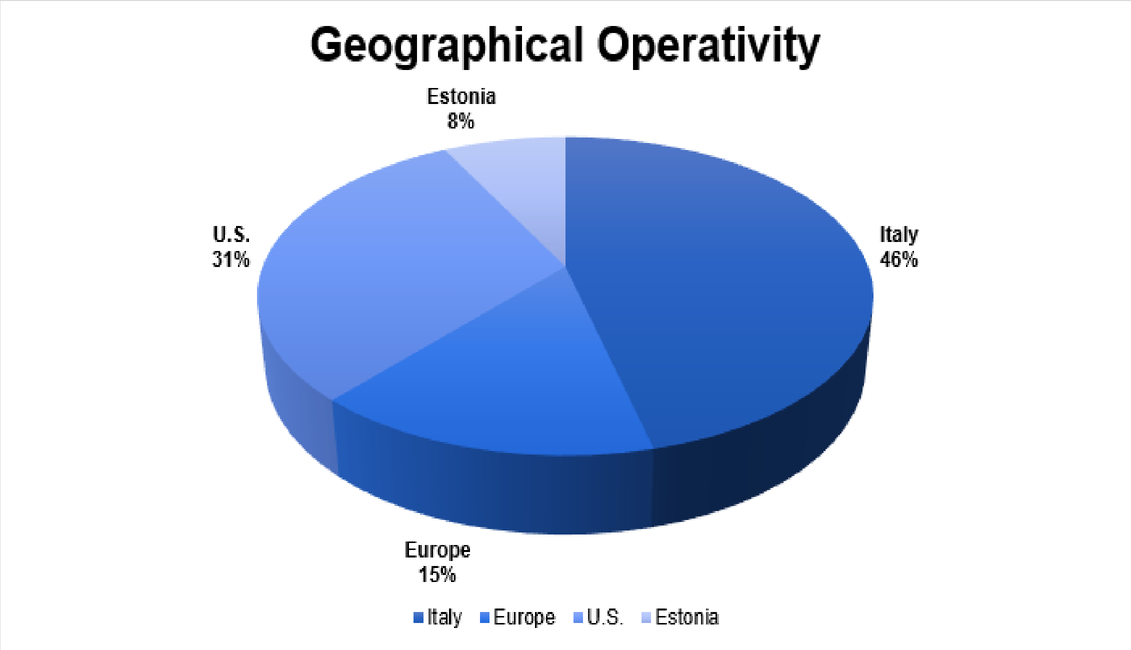
Your help will be fundamental to empower the research basis and deepen this analysis.

Table 1 - Real Estate Representatives' Generalities

Name	Surname	Company
Alberto Gustavo	Casati	Housers
Andrea	Maffi	Truster
Niccolò	Pravettoni	Crowdestate.eu
Marco	Ravetta	Build Around
Paolo	Manetta	ReLender
Leopoldo	Orlando	Build around
francesco	Chechile	4Crowd
/	/	Anonymous
Giacomo	Bertoldi	Walliance
/	/	Bulkestate
Elise	Alexander	AcreTrader, Inc.
Ray Sturm	Sturm	AlphaFlow
Marco	Allegro	RealtyMogul

Source: This Paper

Figure 17 - Real Estate Companies - Geographical Operativity



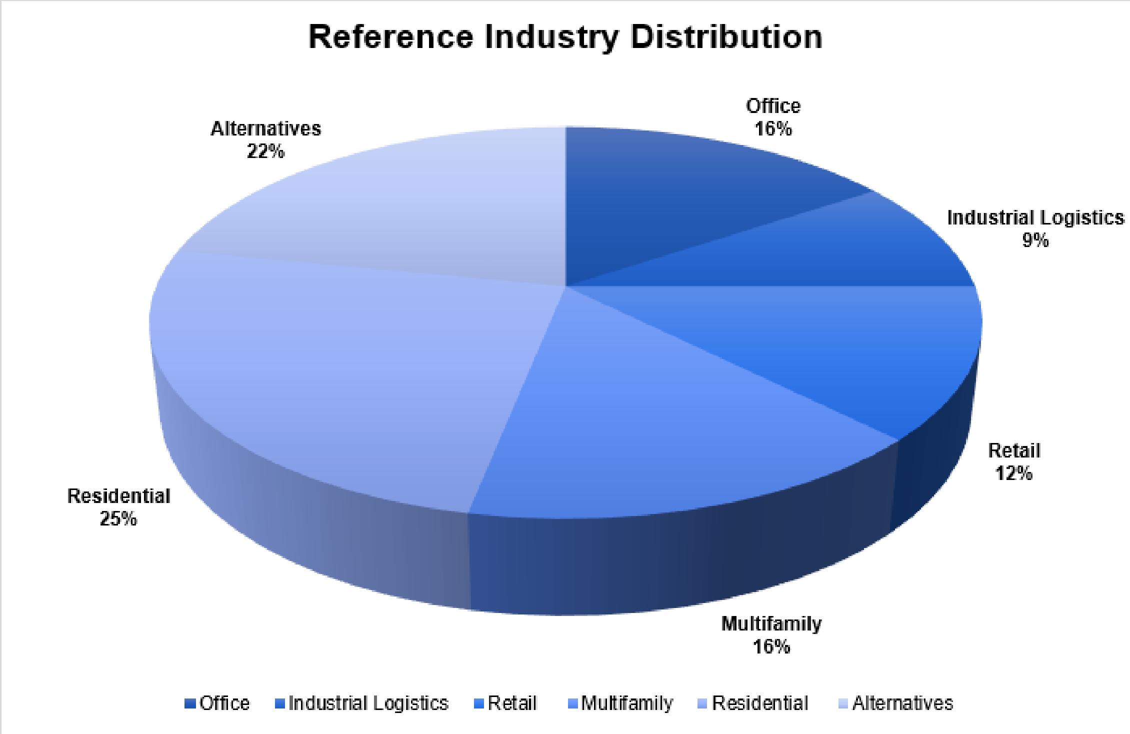
Source: This Paper

Table 2 - Real Estate Companies - Reference Industry

Reference Industry	Observations	%
Office	5	15,63%
Industrial Logistics	3	9,38%
Retail	4	12,50%
Multifamily	5	15,63%
Residential	8	25,00%
Alternatives	7	21,88%
Total	**32**	**100,00%**

Source: This Paper

Figure 18 - Real Estate Companies - Reference Industry Distribution



Source: This Paper

Table 3 - Industry penetration

N° of reference industries	Observations	%
6	2	15,38%
5	0	0,00%
4	1	7,69%
3	2	15,38%
2	3	23,08%
1	5	38,46%
Total	**13**	**100,00%**

Source: This Paper

Table 4 - Real Estate Companies - Returns

Platform	Return (yearly)
Housers	9%
Truster	9%
Crowdestate.eu	12%
Build Around	13%
ReLender	10%
Build around	12%
4Crowd	7%
Anonymous	15%
Walliance	12%
Bulkestate	14%
AcreTrader, Inc.	11%
AlphaFlow	8%
RealtyMogul	15%

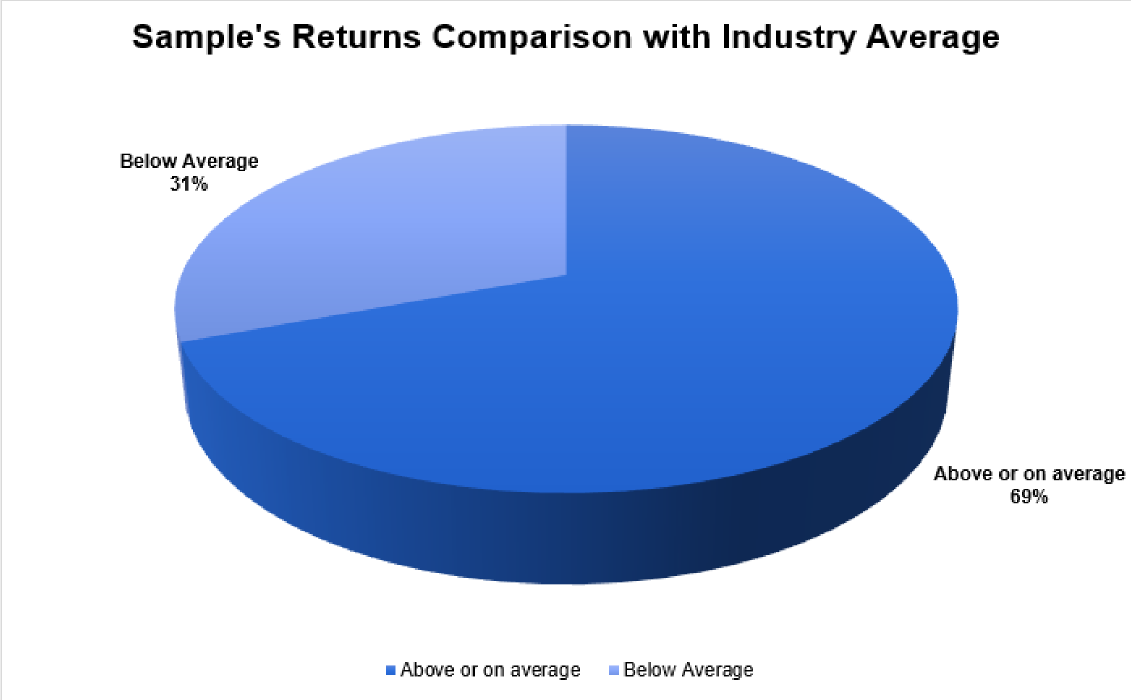
Source: This Paper

Table 5 - Real Estate Companies - Perceived Market Trend

Perceived trend	Observations	%
Grow sharply	2	15,38%
Grow slowly	11	84,62%
Nor grow neither decrease	0	0,00%
Decrease slowly	0	0,00%
Decrease sharply	0	0,00%
Total	**13**	**100,00%**

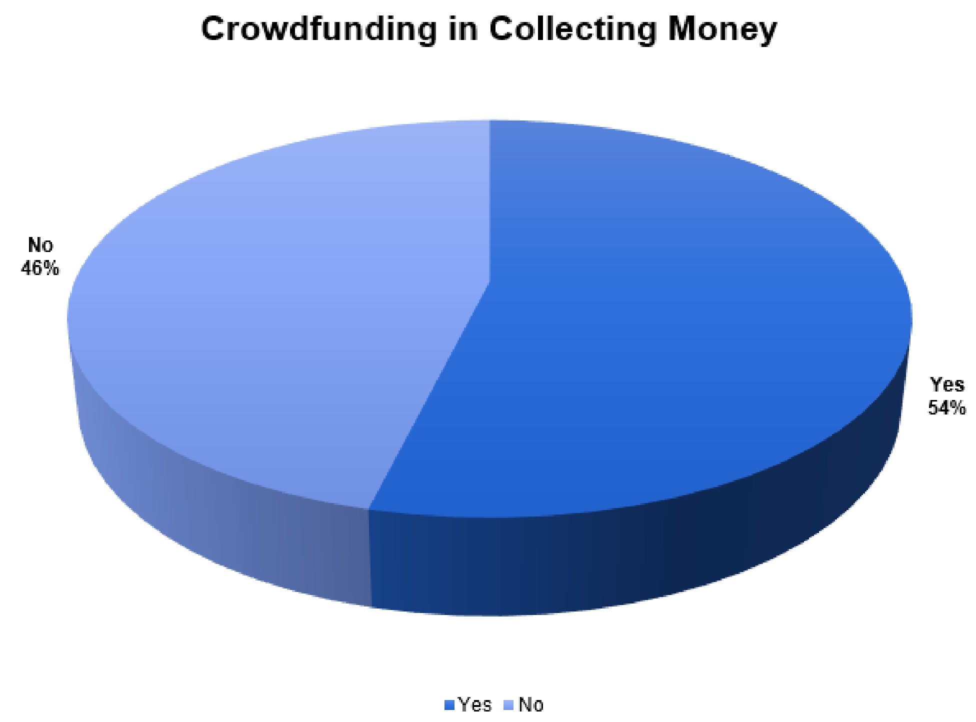
Source: This Paper

Figure 19 - Real Estate Companies - Returns VS Market mean



Source: This Paper

Figure 20- Real Estate Companies - Explicitly implementing Crowdfunding



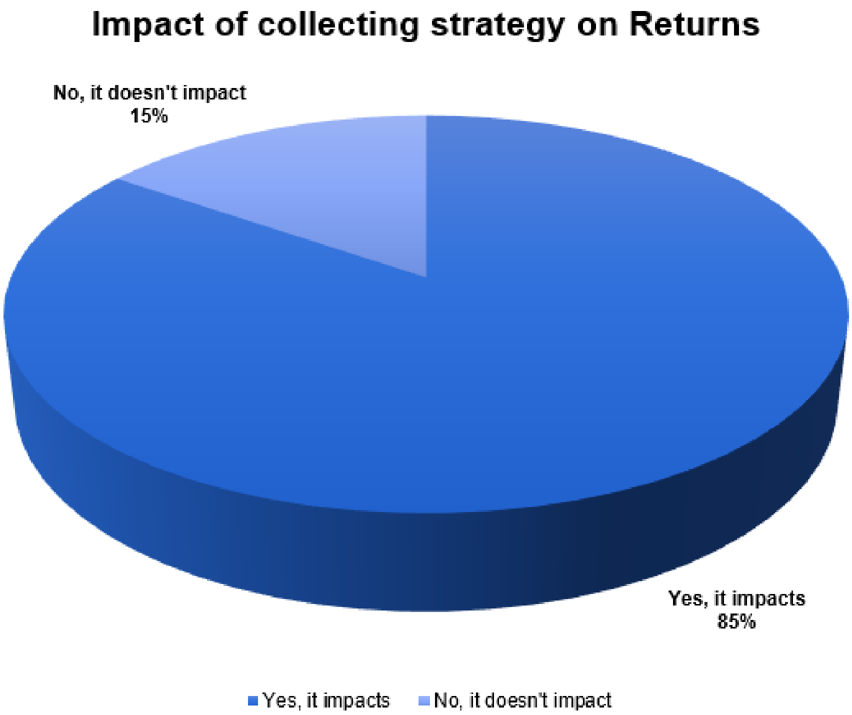
Source: This Paper

Table 6 - Real Estate Companies - Collecting Practices

Platform	How they collect money
Housers	From small investors, through platform
Truster	Lending Crowdfunding
Crowdestate.eu	Loans
Build Around	SPVS
ReLender	Crowdfunding
Build around	Equity crowdfunding
4Crowd	Crowdfunding, Private, Senior Debt
Anonymous	$5,000 minimum investment in two public, non-traded REITs. From accredited investors for private placements. Funds clear through a broker-dealer.
Walliance	Crowdfunding
Bulkestate	Real estate Crowdfunding
AcreTrader, Inc.	Via Crowdfunding Platform
AlphaFlow	Our clients are institutional investors who want to access our asset class: residential real estate bridge loans
RealtyMogul	Online from accredited and non-accredited investors

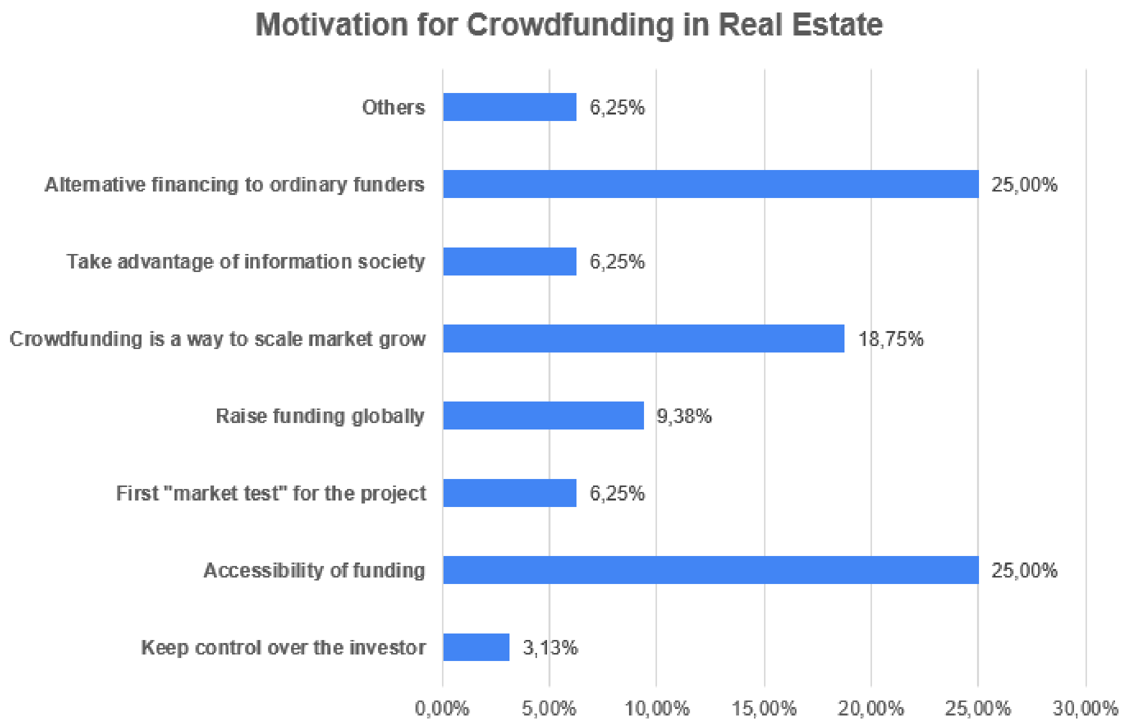
Source: This Paper

Figure 21 - Real Estate Companies - Perceived impact of Collecting Strategy on Returns



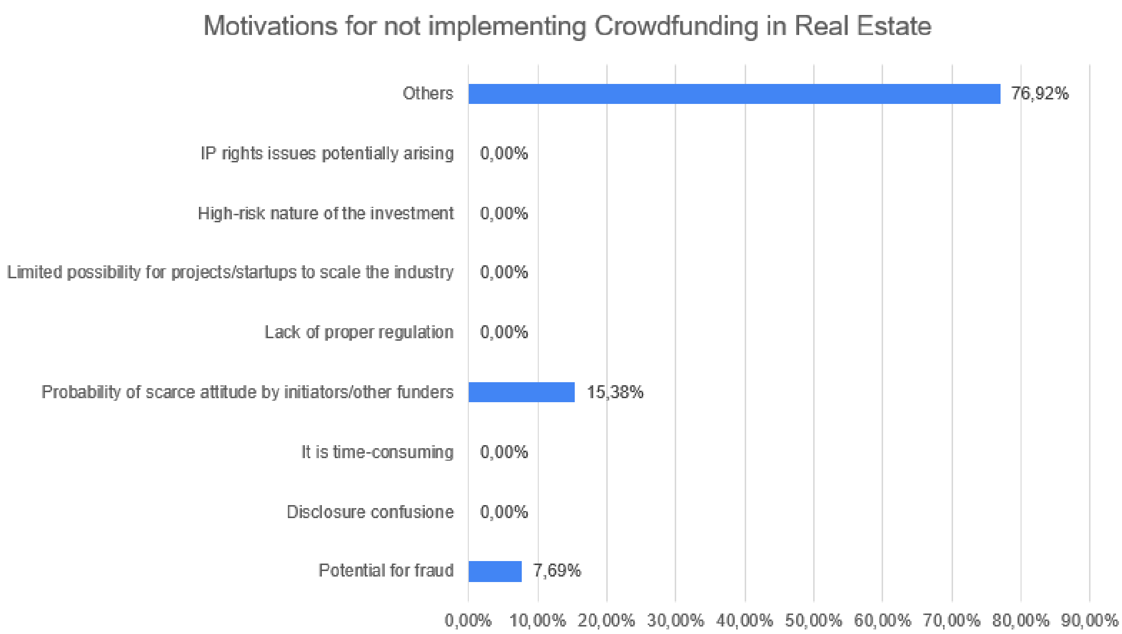
Source: This Paper

Figure 22 - Real Estate Companies - Motivation for Crowdfunding in Real Estate



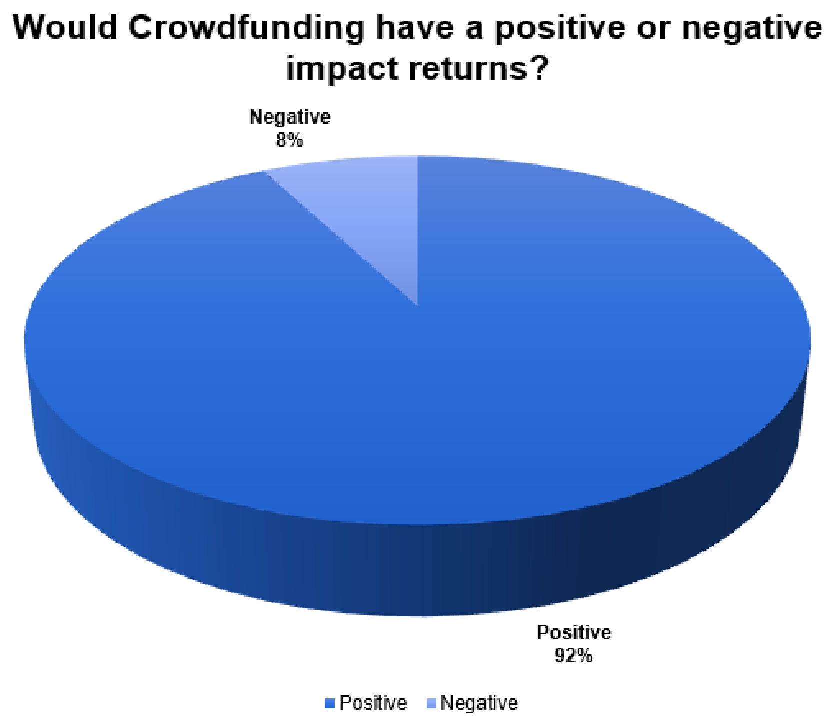
Source: This Paper

Figure 23 - Real Estate Companies - Motivations for not implementing Crowdfunding in Real Estate



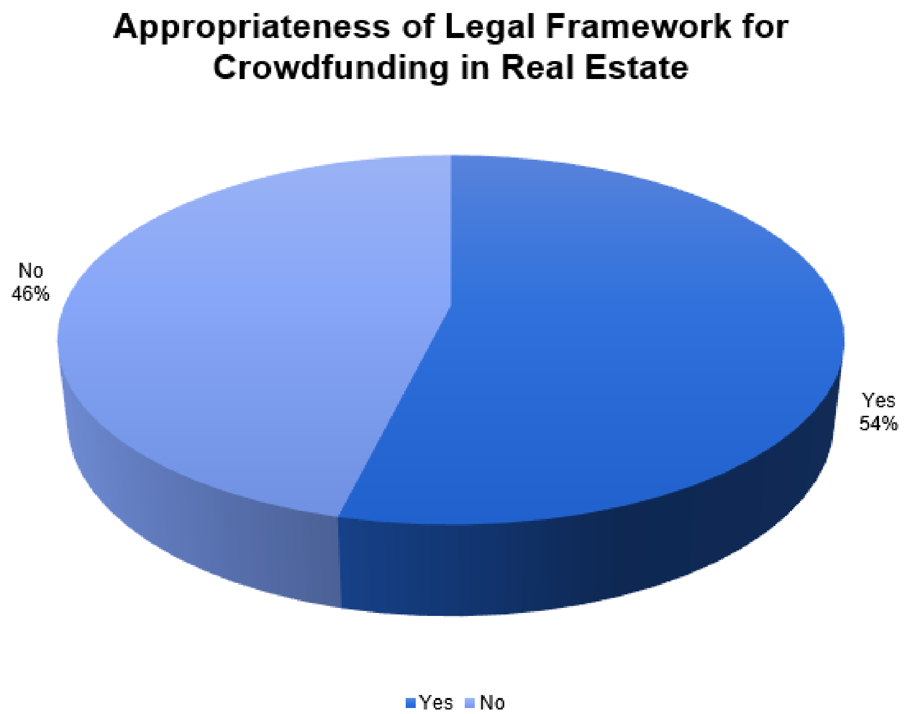
Source: This Paper

Figure 24 - Real Estate Companies - Opinion on Crowdfunding impact on Returns for Investors



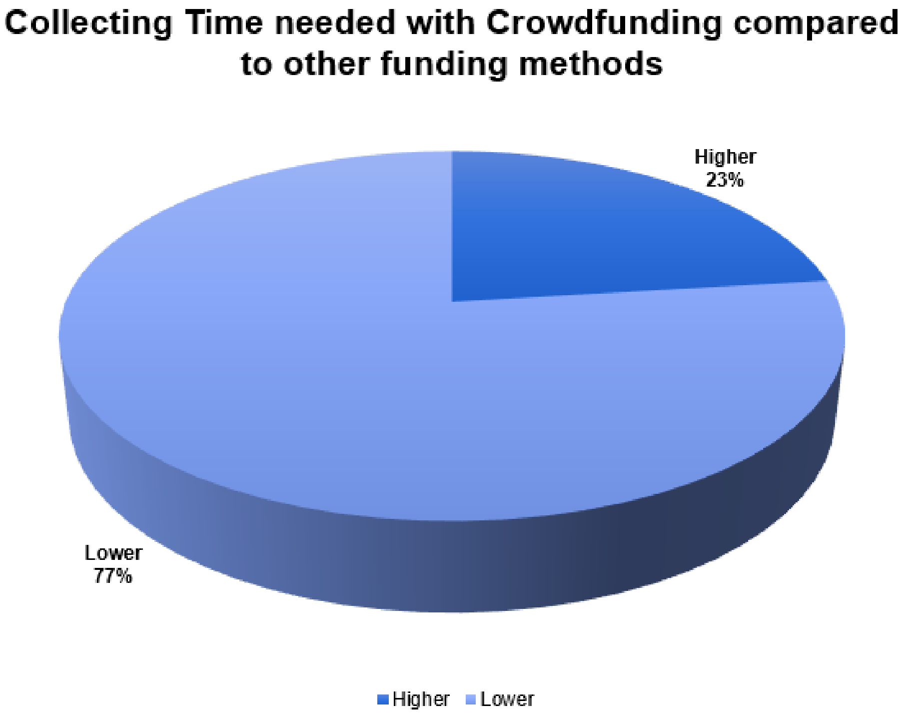
Source: This Paper

Figure 25 - Real Estate Companies - Perceived Appropriateness of Legal Framework



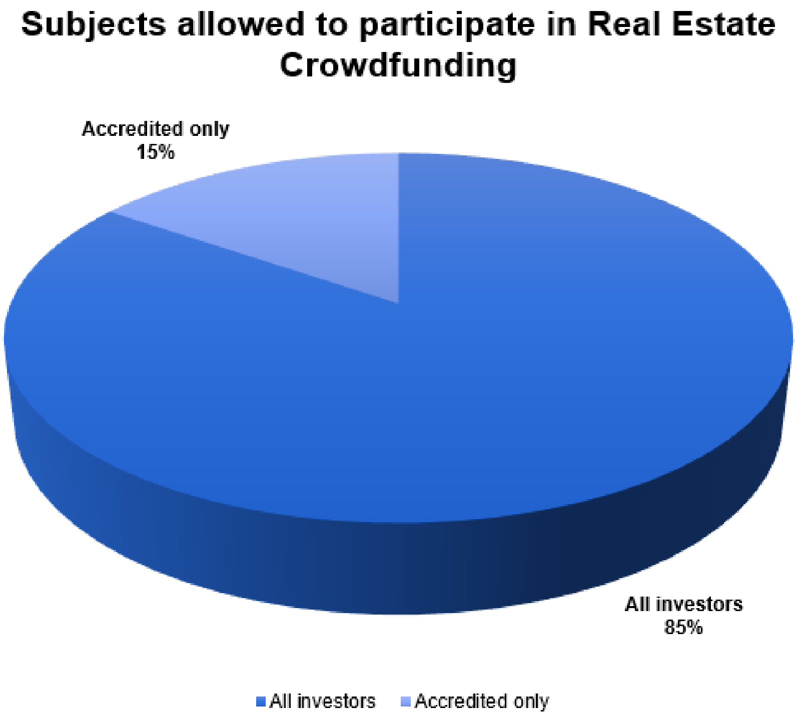
Source: This Paper

Figure 26 - Real Estate Companies - Opinion on Crowdfunding impact on collecting time



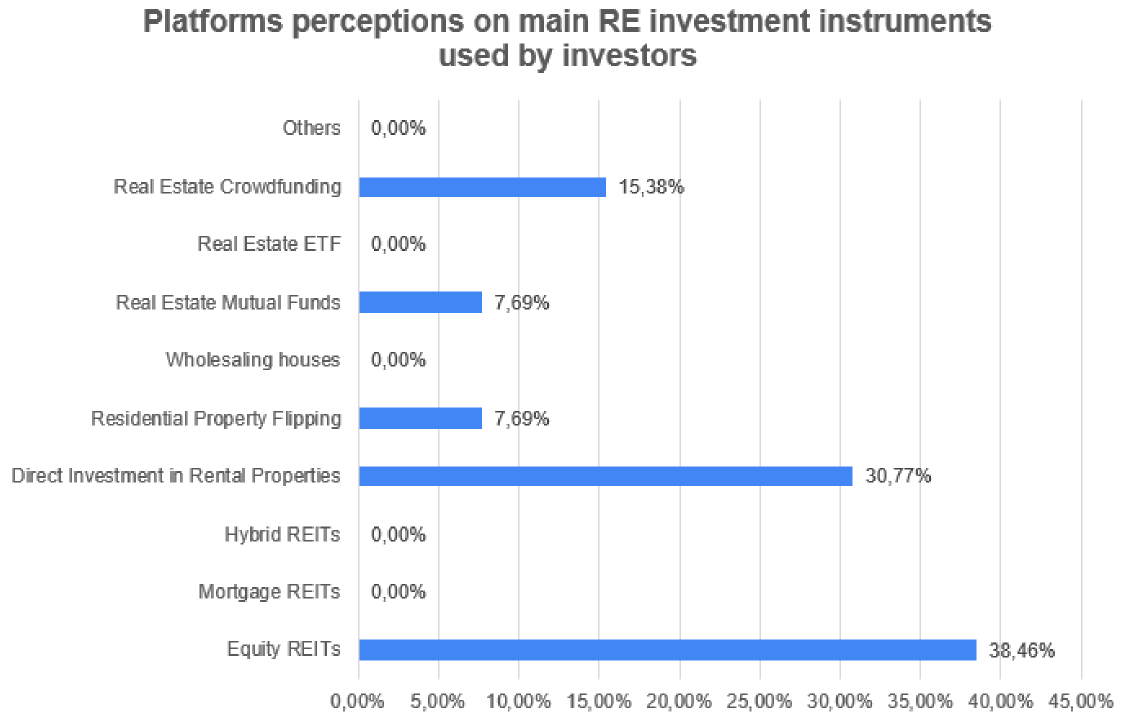
Source: This Paper

Figure 27 - Real Estate Companies - Subjects allowed to participate



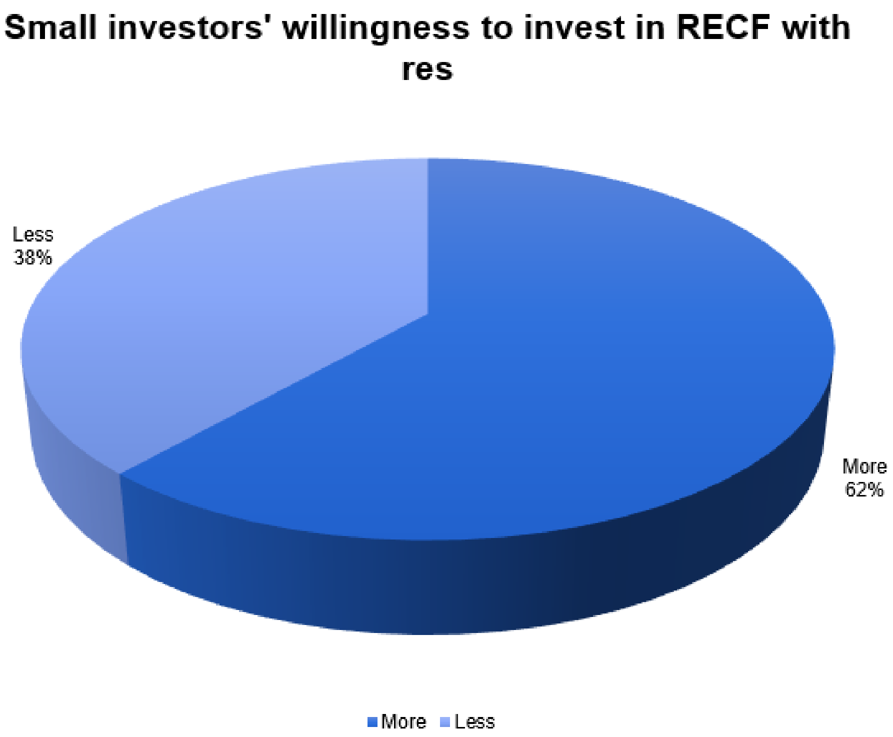
Source: This Paper

Figure 28 - Real Estate Companies - Perceptions on RE Instruments used by Investors



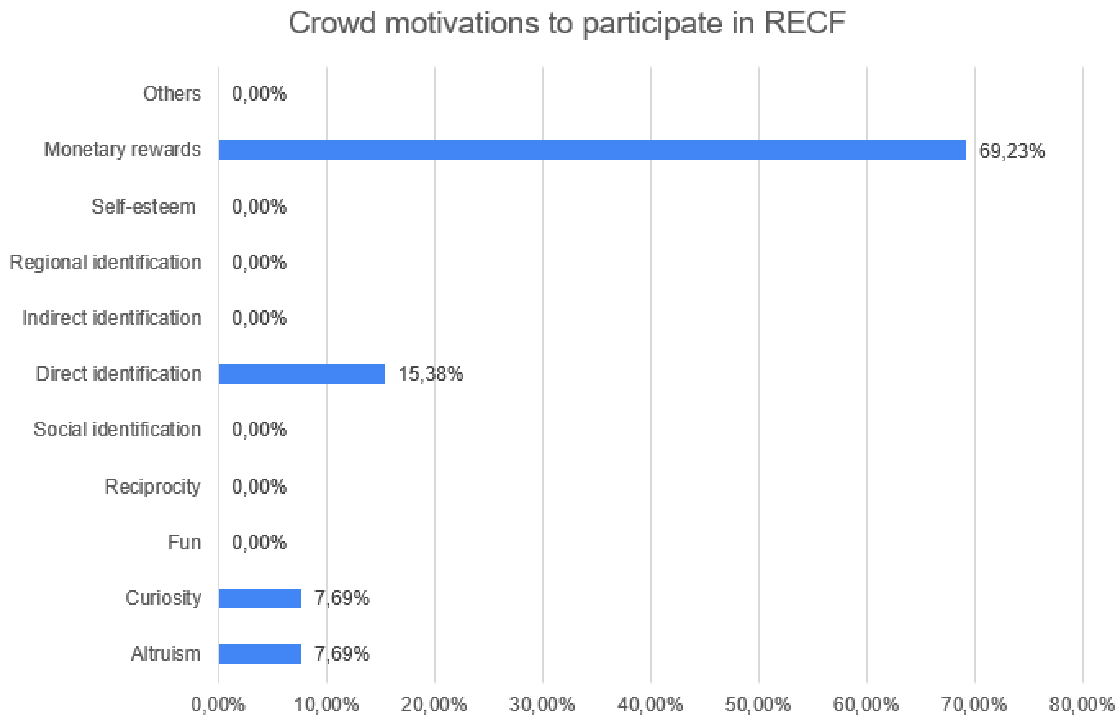
Source: This Paper

Figure 29 - Real Estate Companies - Investors' willingness to invest in RECF



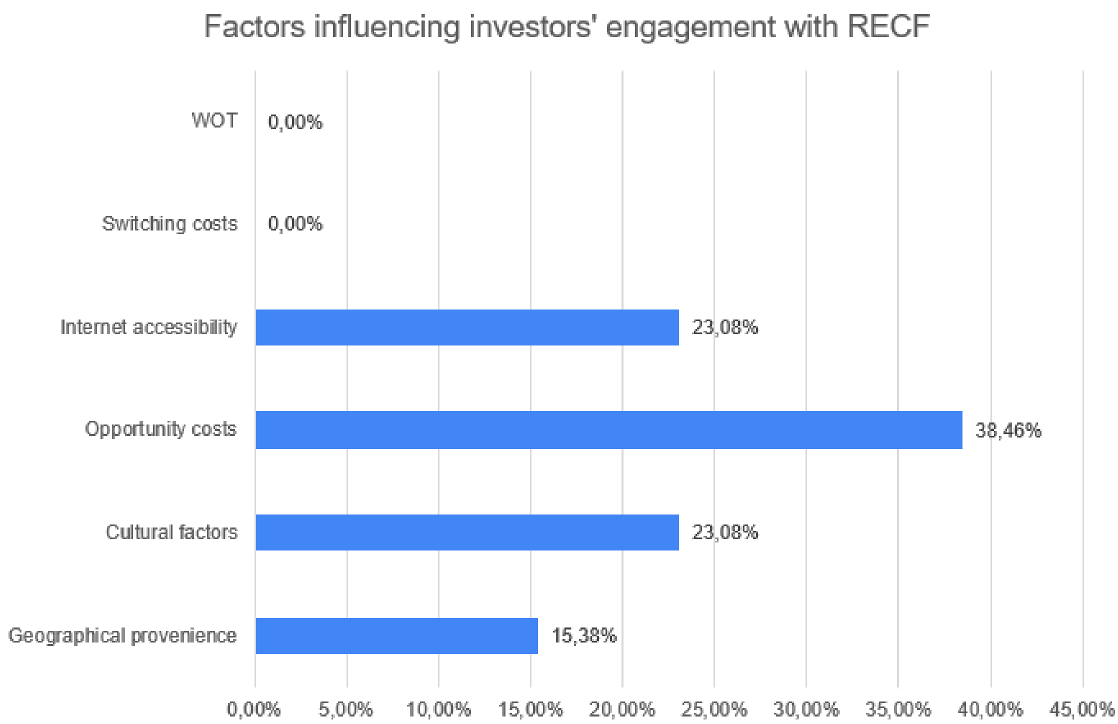
Source: This Paper

Figure 30 - Real Estate Companies - Perceived Investors' motivations to participate in RECF



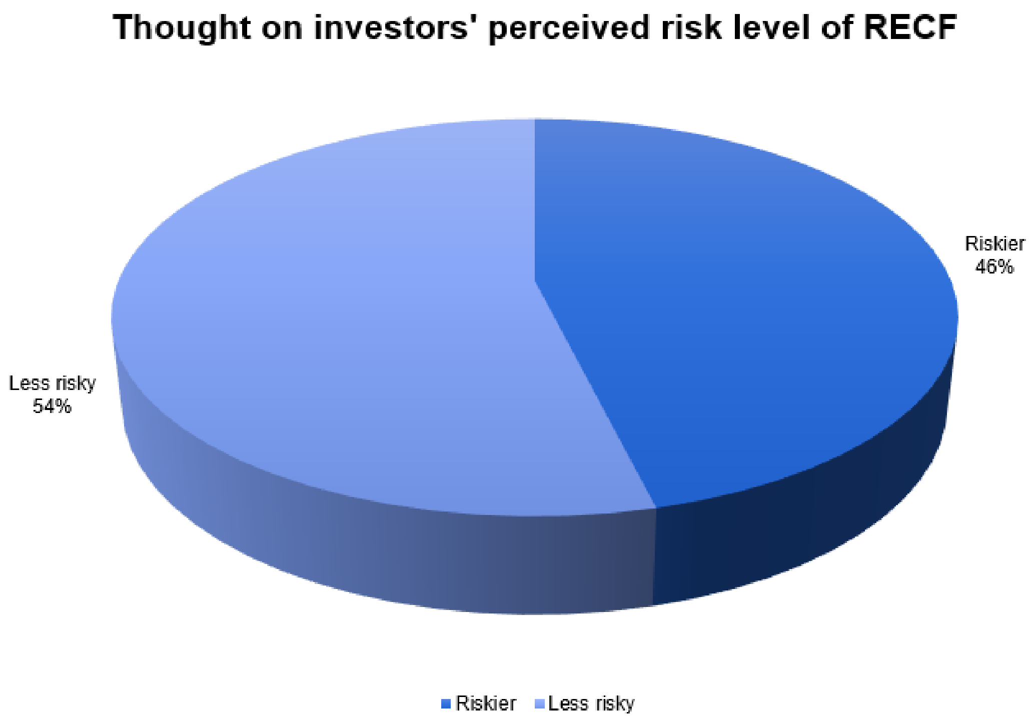
Source: This Paper

Figure 31 - Real Estate Companies - Factors influencing investors in RECF



Source: This Paper

Figure 32 - Real Estate Companies - Perceived Investors' Risk Level



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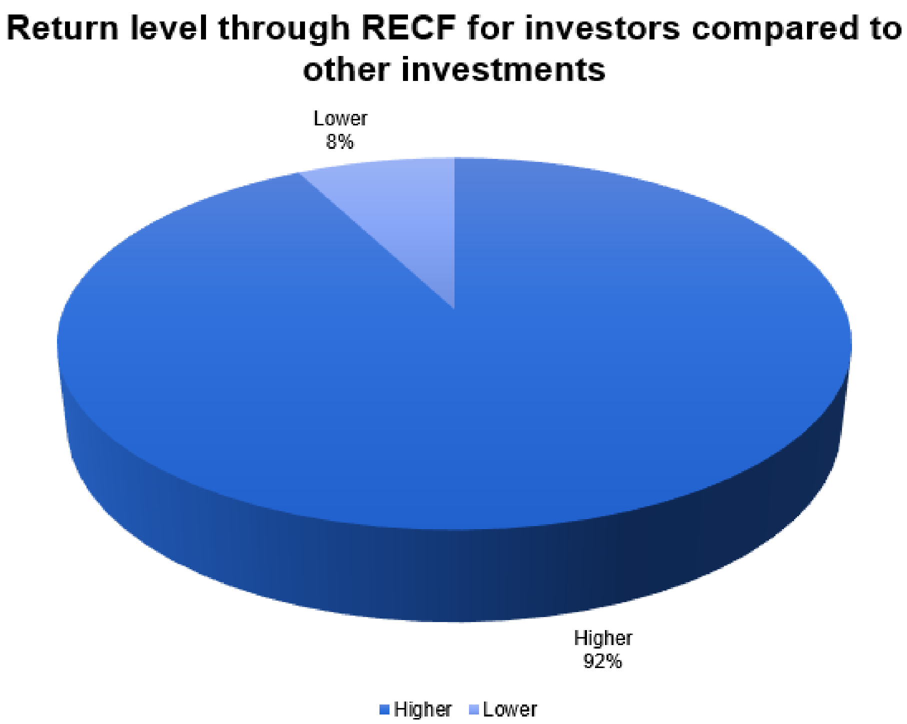

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Figure 34 - Potential Investors - Past experiences in Securities

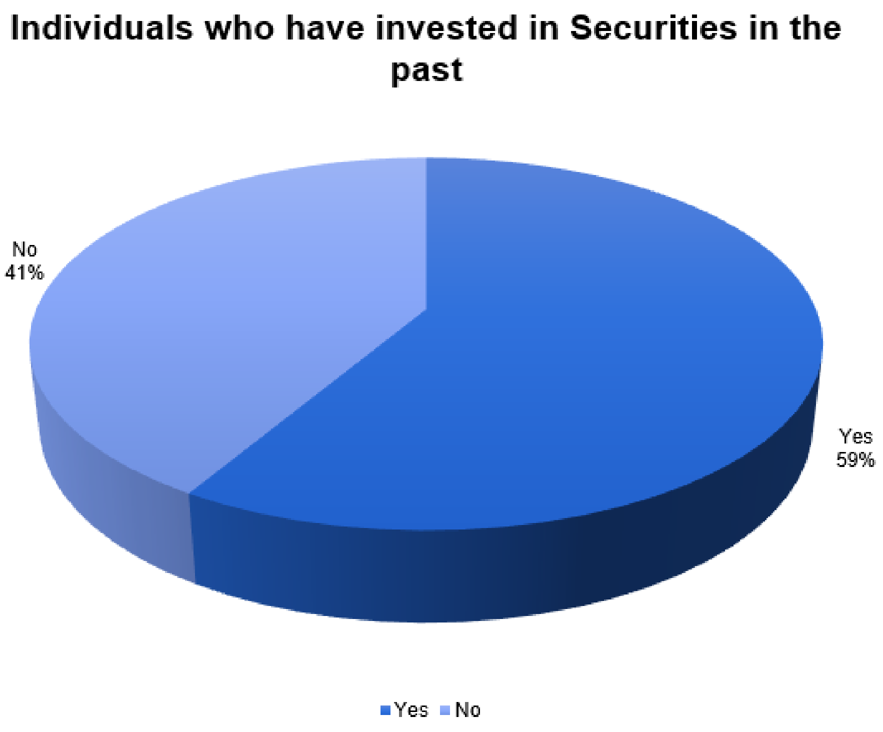

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Figure 35 - Potential Investors - Types of Securities

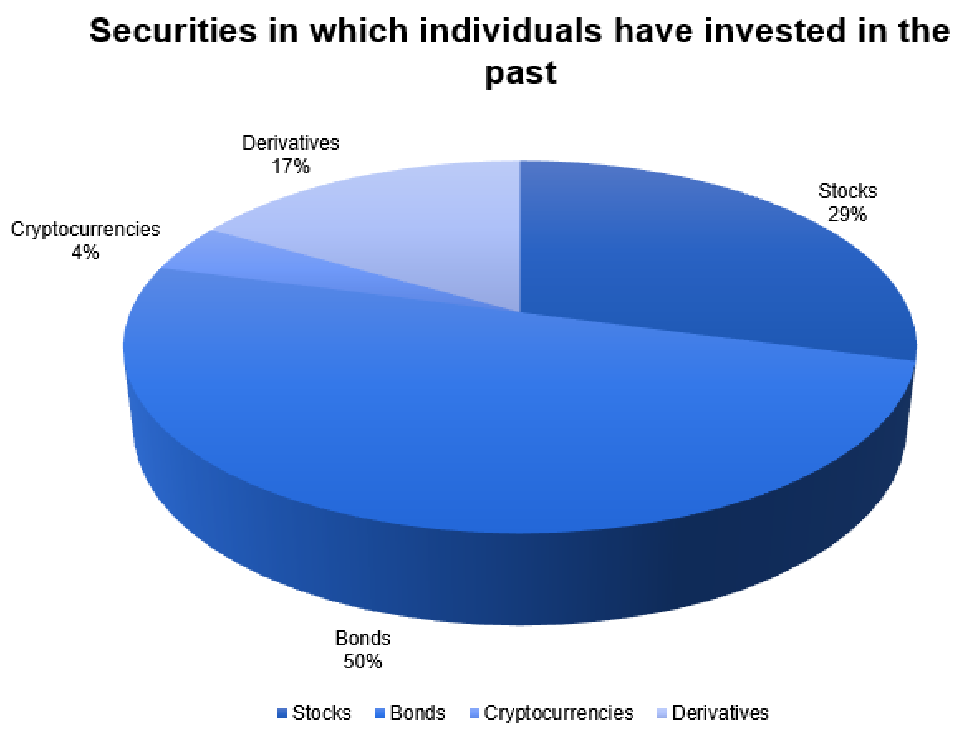

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Figure 367 - Potential Investors – Past experiences' Returns VS Mean

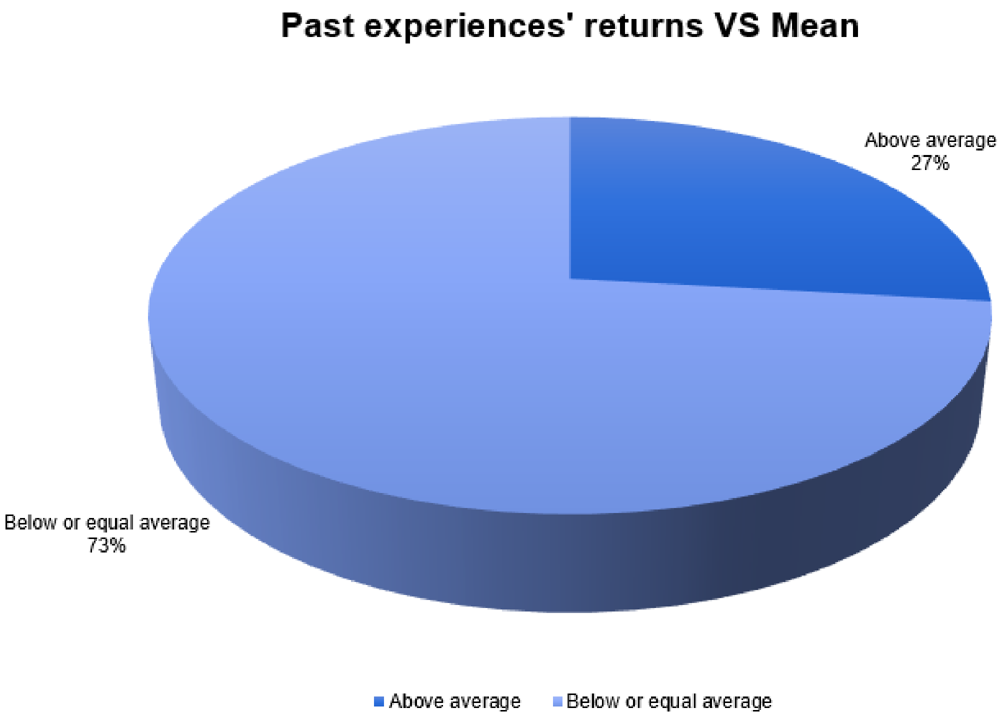
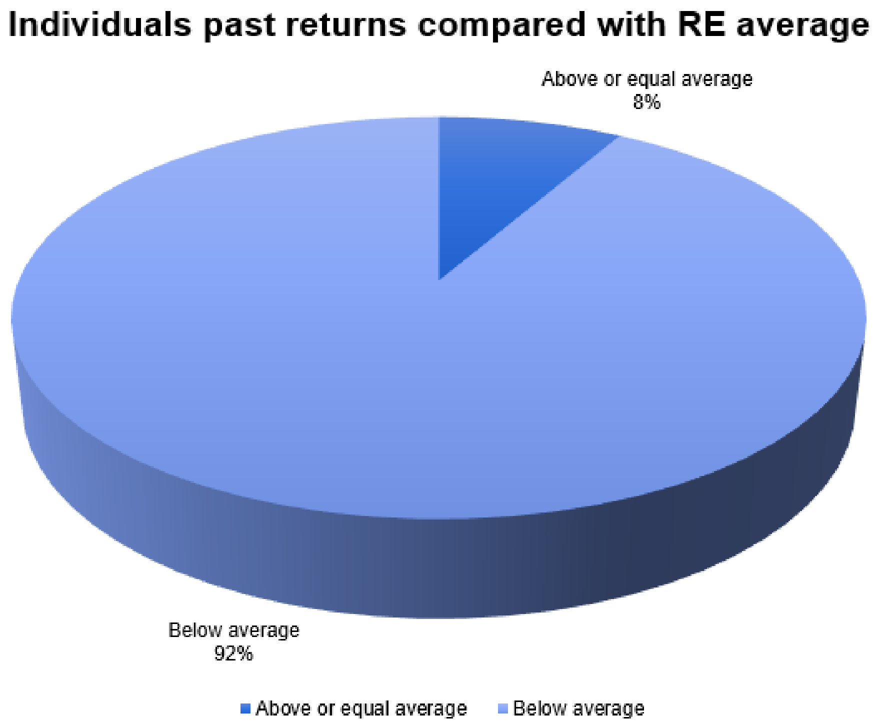


Table 7 - Potential Investors - Types of Securities

Past experiences	Observations
Bonds	2,0%
Bonds	2,0%
Bonds	2,0%
Bonds	2,0%
Bonds	3,0%
Stocks	12,0%
Bonds	3,0%
Cryptocurrencies	-2,0%
Stocks	9,0%
Bonds	1,5%
Stocks	10,0%
Derivatives	7,0%
Bonds	1,5%
Bonds	2,0%
Stocks	8,0%
Stocks	6,0%
Derivatives	5,0%
Bonds	1,0%
Derivatives	9,0%
Stocks	8,0%
Bonds	3,0%
Bonds	1,5%
Stocks	6,5%
Derivatives	5,5%
Average	**4,5%**

Source: This Paper

Figure 37- Potential Investors - Returns VS RE mean



Source: This Paper

Figure 38 - Potential Investors - Risk profile

Source: This Paper

Figure 39 - Potential Investors – Motivations nature

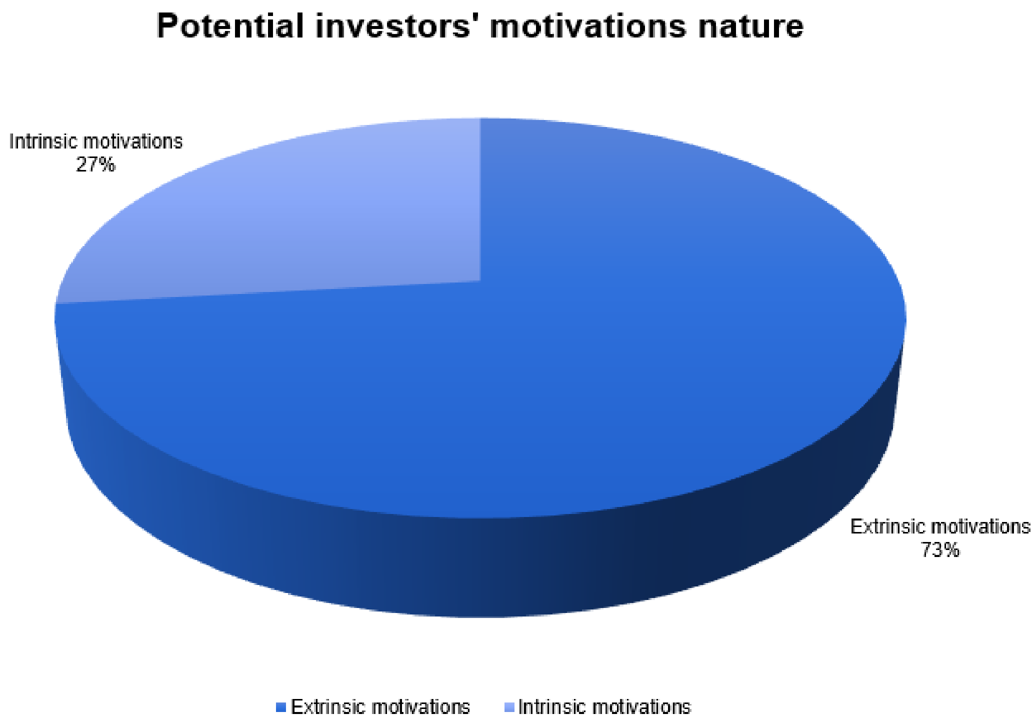


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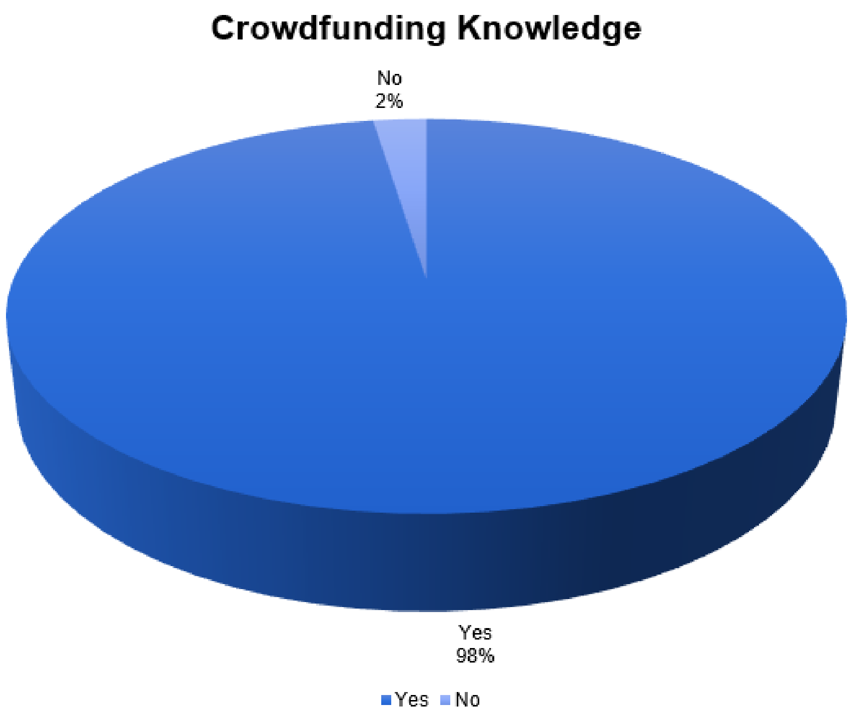
Figure 40 - Potential Investors - Crowdfunding Knowledge



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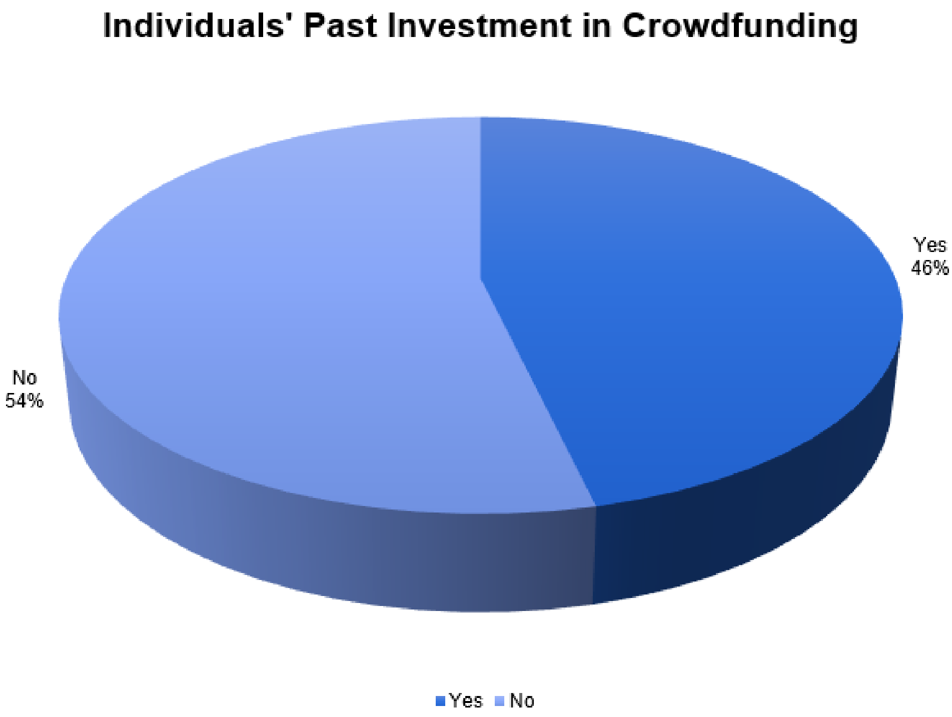

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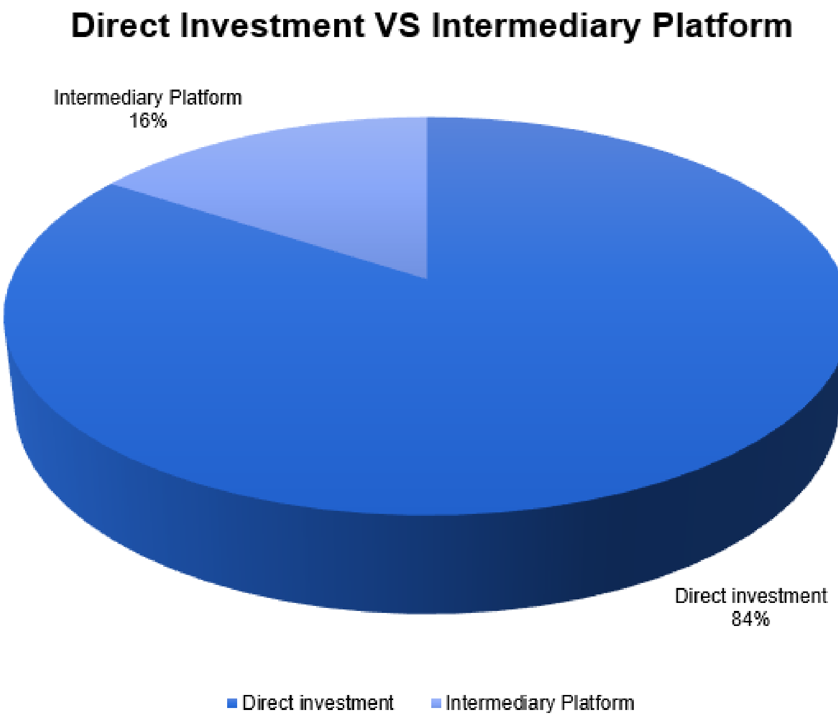

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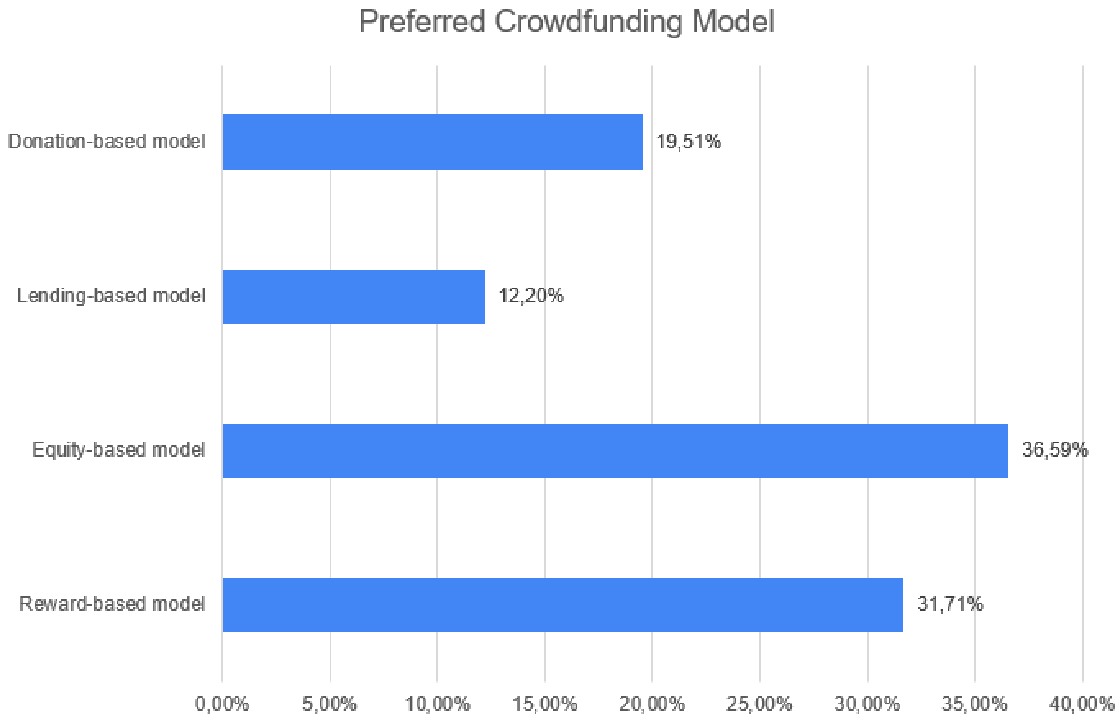

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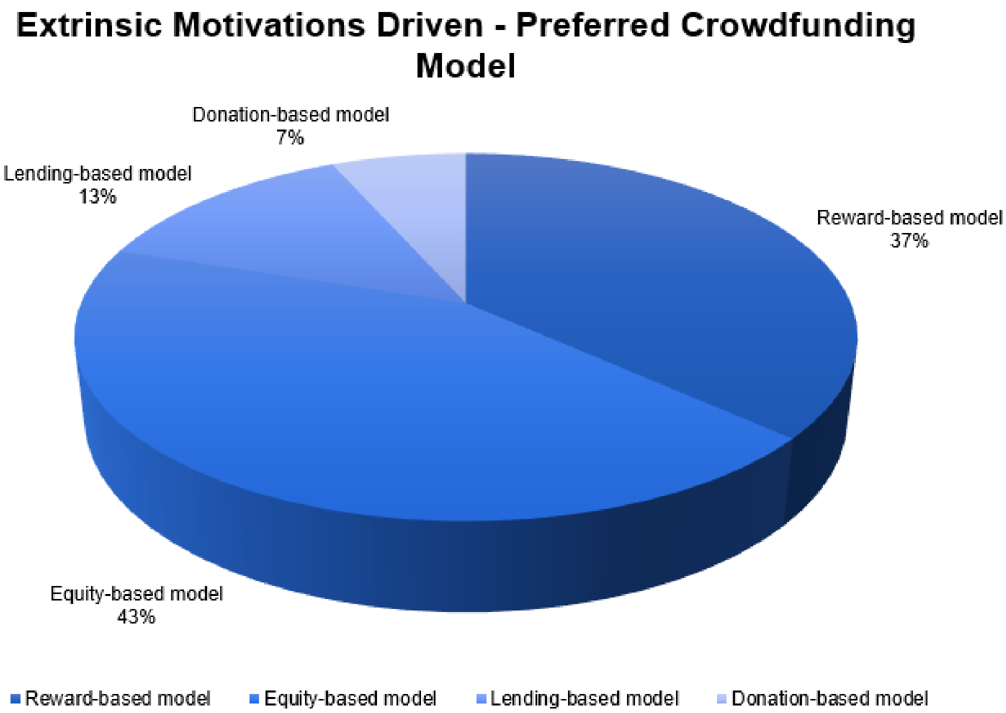

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Figure 45 - Potential Investors - Intrinsic motivated preferred Crowdfunding Model

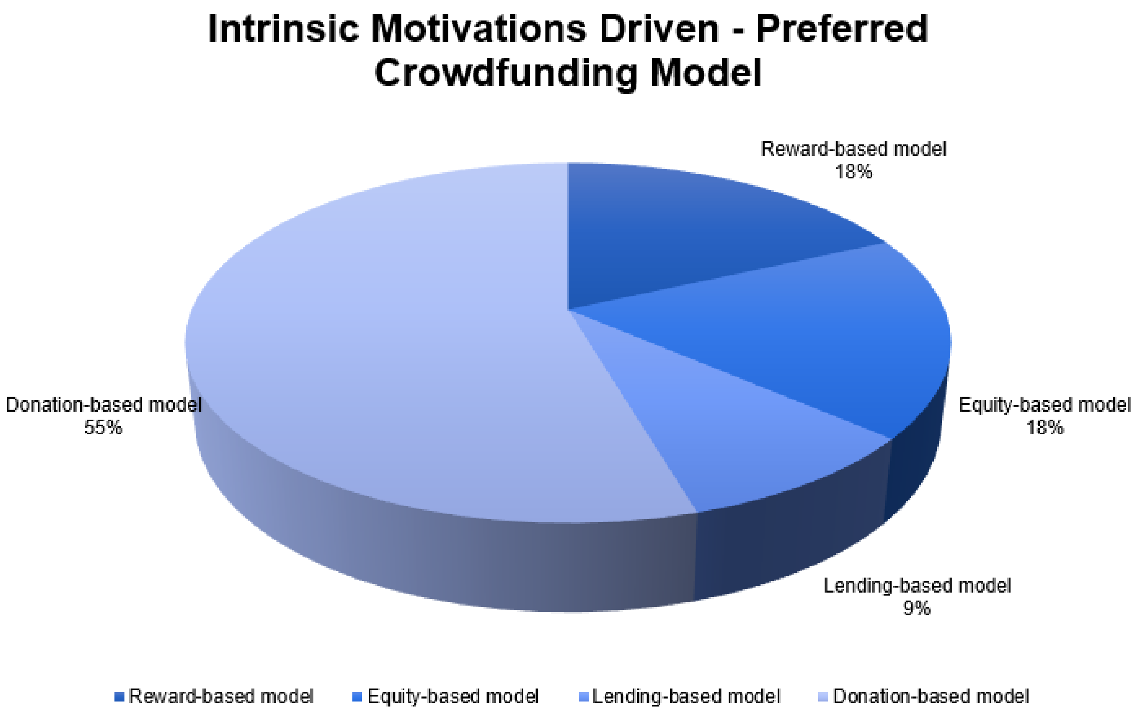

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Figure 46 - Potential Investors - Specific Motivations to invest in Crowdfunding

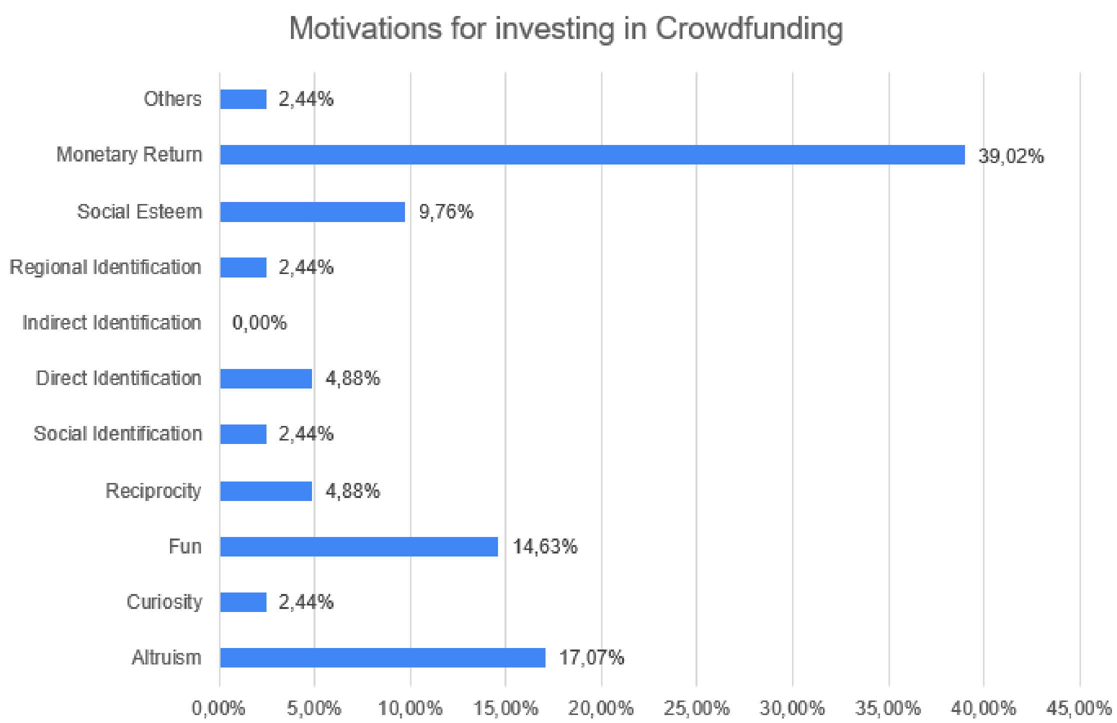

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Figure 47- Potential Investors - Specific Motivations for not investing in Crowdfunding

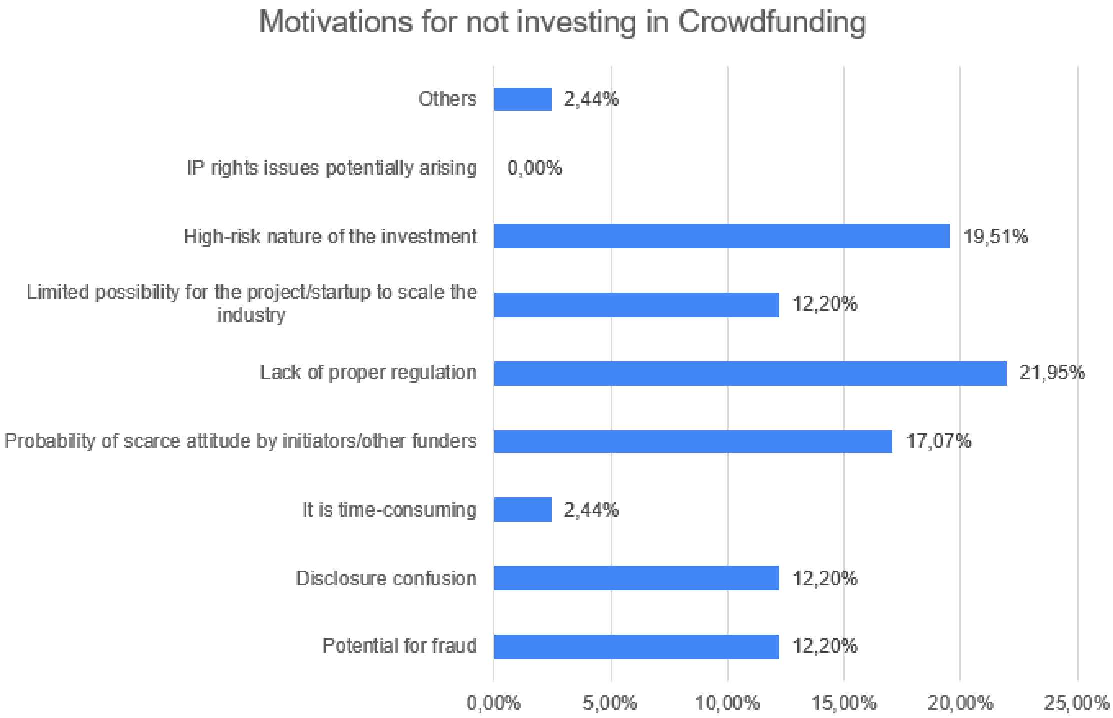

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Figure 48 - Potential Investors - Nature of Potential Investors moved by Monetary Rewards

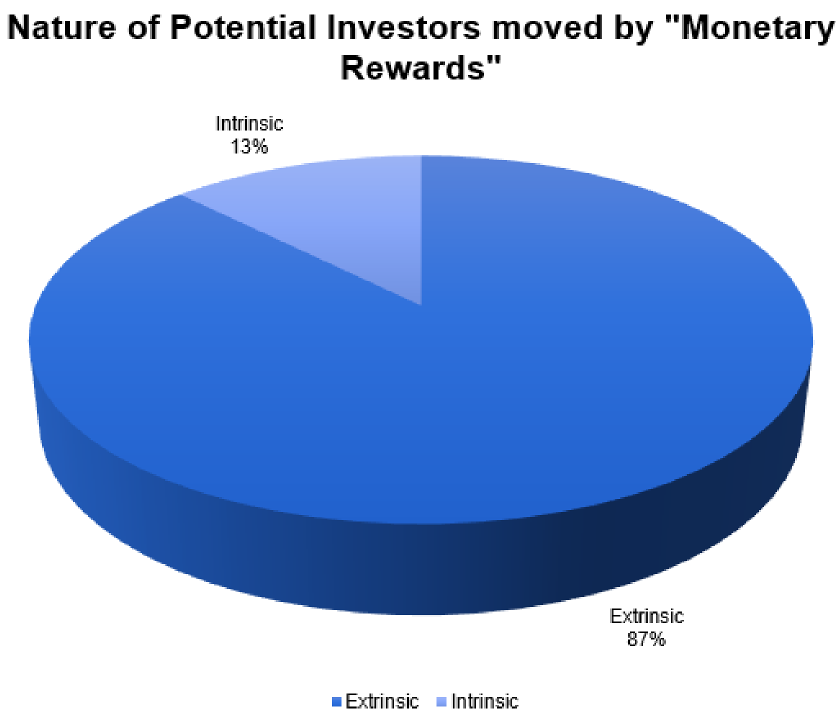

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Figure 49 - Potential Investors - Intrinsic Motivated moved by "Monetary Rewards"

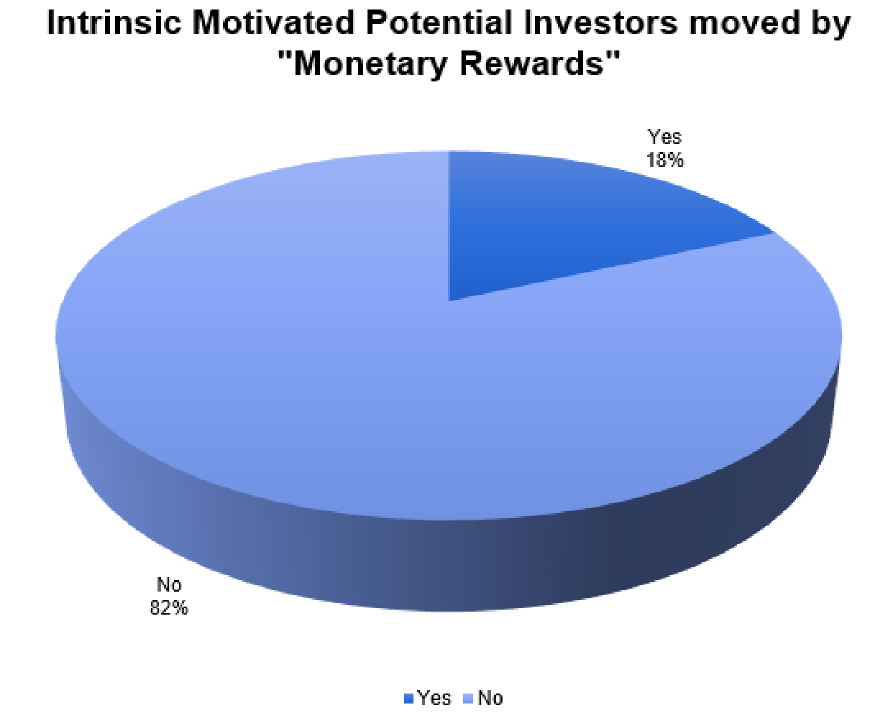

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Figure 50 - Potential Investors - Past investments in RE

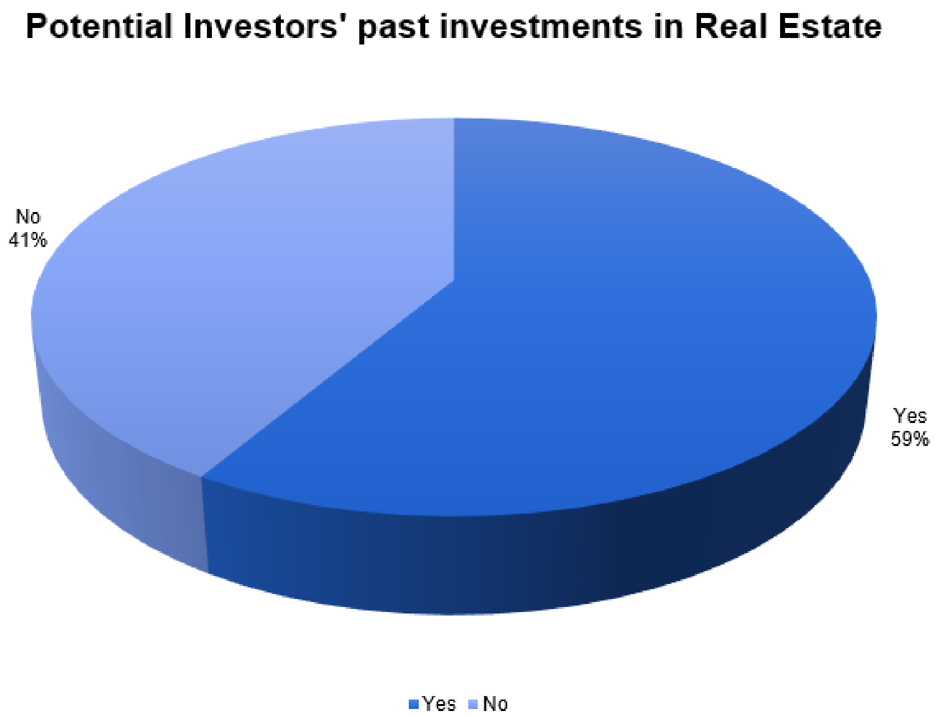

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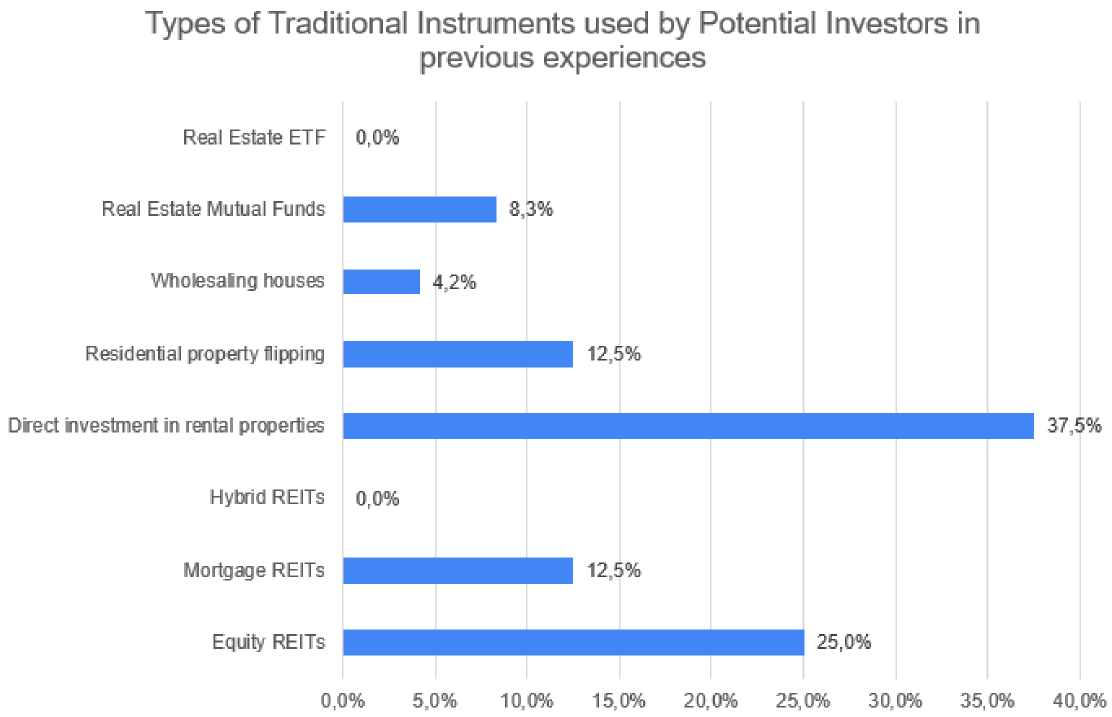
Figure 51 - Potential Investors - Types of Traditional RE Instruments used in the past



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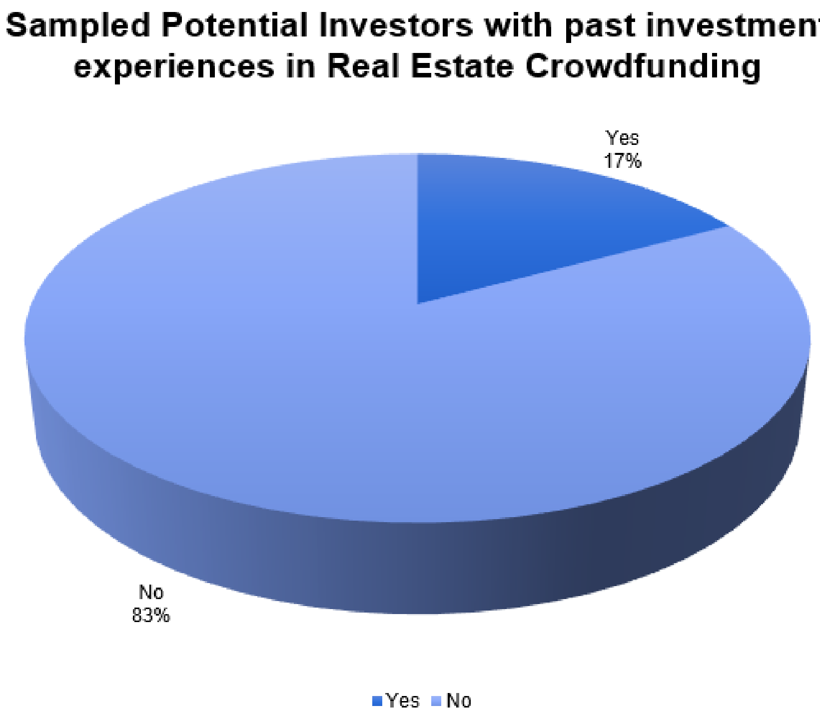

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Figure 53 - Potential Investors - Willingness to invest in RECF in future

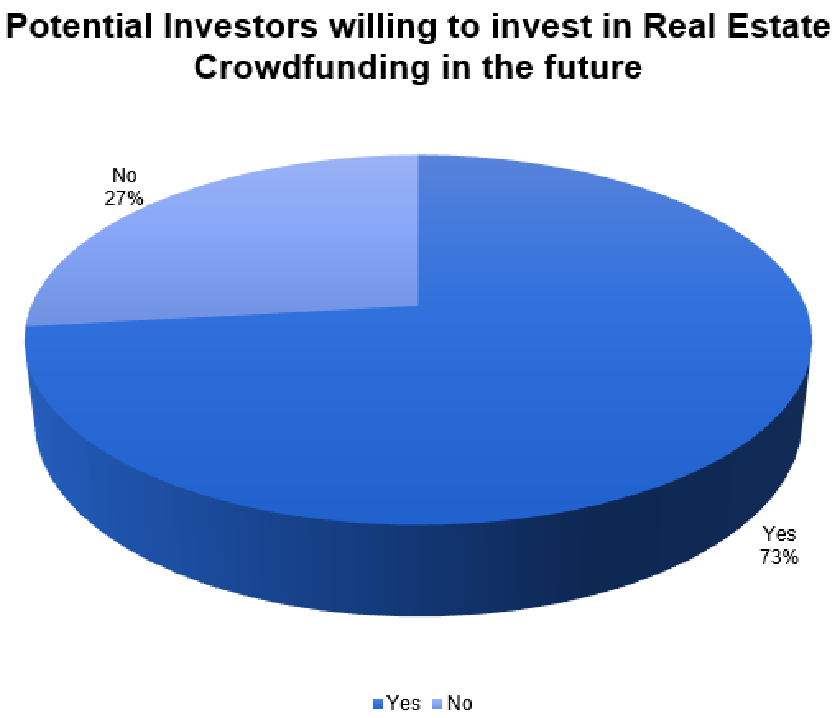

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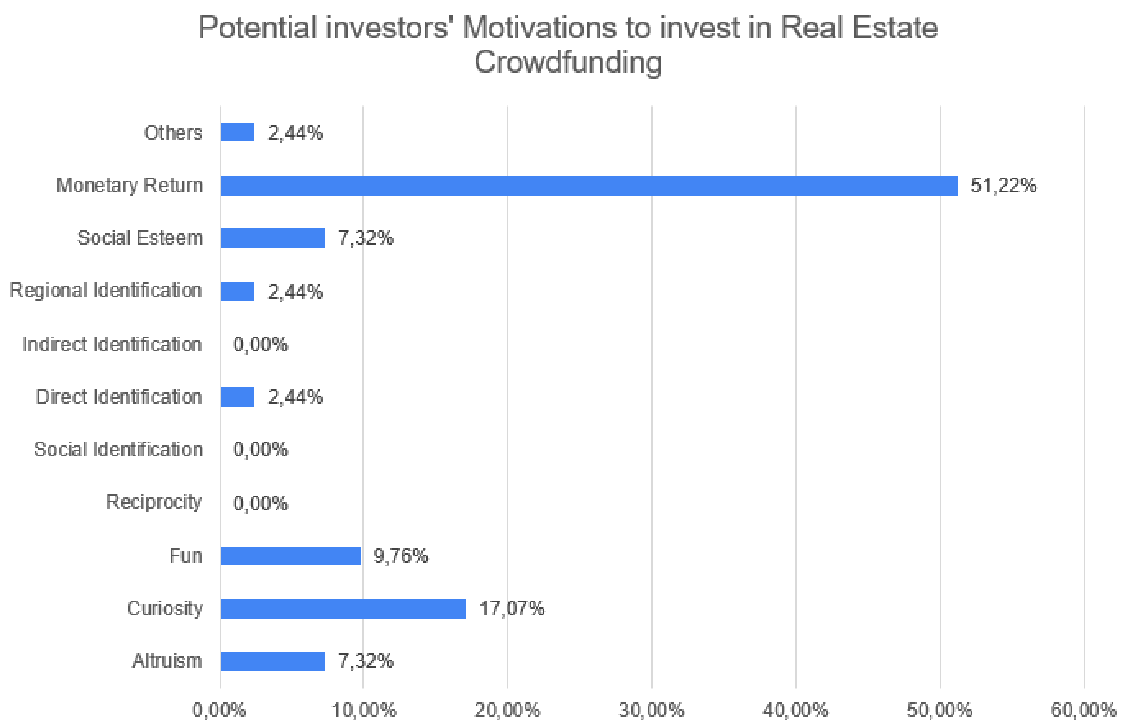
Figure 54 - Potential Investors - Specific motivations to invest in RECF



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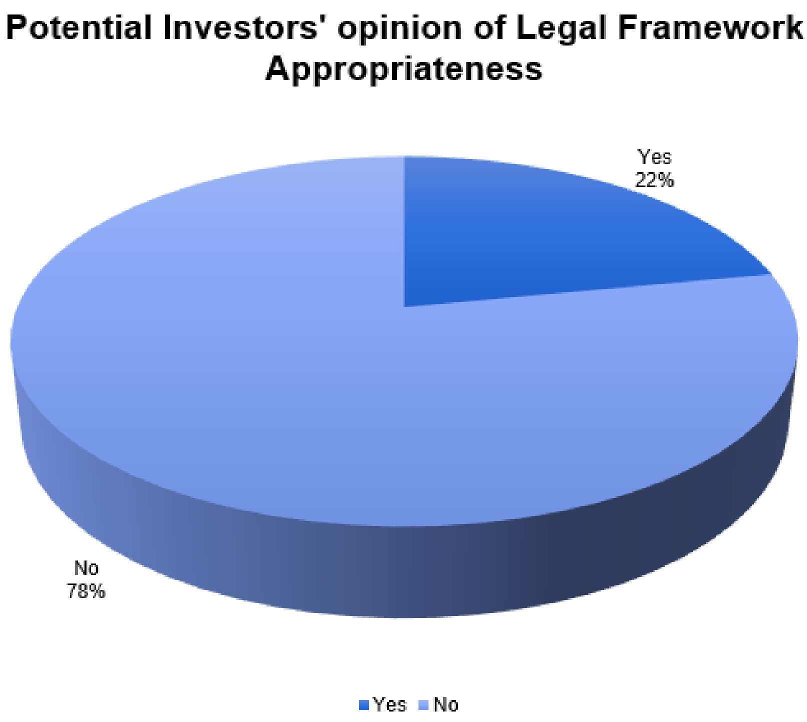


Source: This Paper

Table 8 - Potential Investors - Perceived Advantages of RECF

Potential Investors' perceived potential advantages
Invest lower amount of money
Higher than average yield of return
Participate in the creation of something "great and real" as properties even if investing low money
Participate in the Real Estate market without investing and risking a great amount
High yield return of the Real Esate industry but with lower risk of traditional instruments
Helping the realization of buildings for social purposes (for example, hospitals)
Monetary rewards
Support a good cause, for example people not having the possibility to dispose of an house
Beyond monetary rewards, Investing in Real Estate Crowdfunding gives you a great sense of success because the industry involved
Higher yield of return compared with other investments with same risk
Exploit market yields of return assuming lower risks
Diversification of my investment portfolio
High yield of return
Earn more money than with other types of investment
Even if there have been some crisis in the past, Real Estate market is enough solid today, and Crowdfunding could make it less risky
Invest lower amount of money compared to other investments in Real Esatate
Apart from higher returns than other types of Crowdfunding investments, I'm curious to see how relationships would be with developers
Possibility to invest low money in a market were usually you should invest higher sums

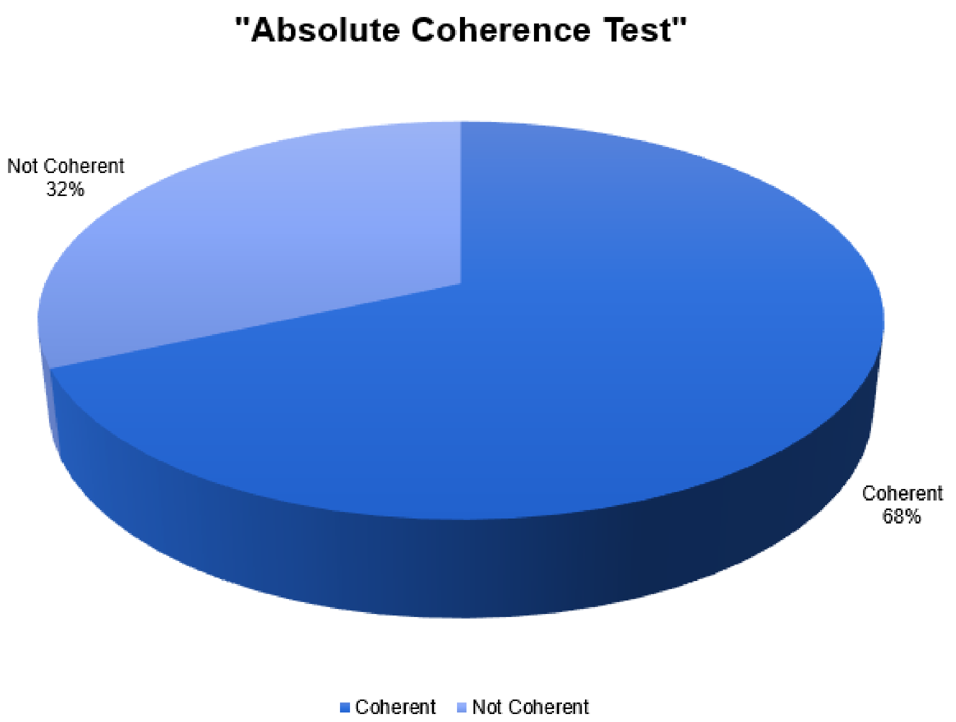
Source: This Paper

Table 9 - Potential Investors - Perceived Disadvantages of RECF

Potential Investors' perceived potential disadvantages
Uncertainty about the success of the investment
Is not clear about froud and high risks
High risk
Long time frame for the investment to be made
Sometimes the investment process is confusing
The time needed to complete the investment is long
Real Esate industry is complex
Investing in Real Estate, even if with crowdfunding, requires a minimum knowledge of the industry
Sometimes you can not trust at all Crowdfunding campaign's developers
Potential for fraud and lack of proper regulation
Not knowing how to handle bureaucratic issues related to invest through Crowdfunding in the Real Estate
it is more difficult to manage and have constant information about your investment
Regulatory compliances
Long holding period
High risk of the underlying industry
long mantaining period
The actual landscape of Crowdfunding is still too much complicated and confusing
Legal framework for crowdfunding is still not developed enough in Europe
I don't know properly the legal discipline applicable
It could be difficult to exit the investment before the end of the holding period
I think a basic knowledge of the Real Estate is necessary to invest, and not everyone has this knowledge

Source: This Paper

Figure 56 – Potential Investors - Absolute Coherence Test



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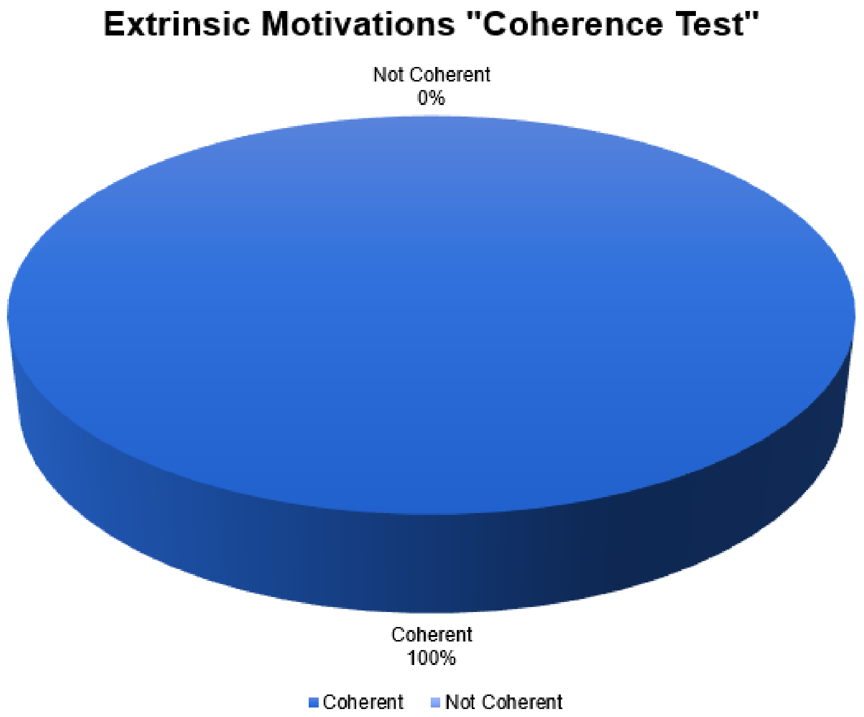

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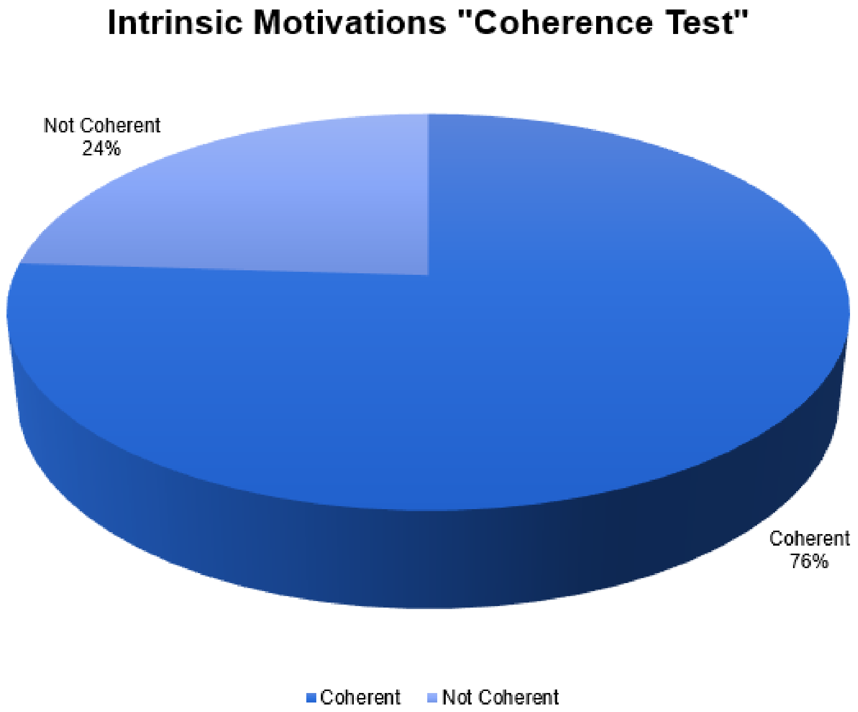

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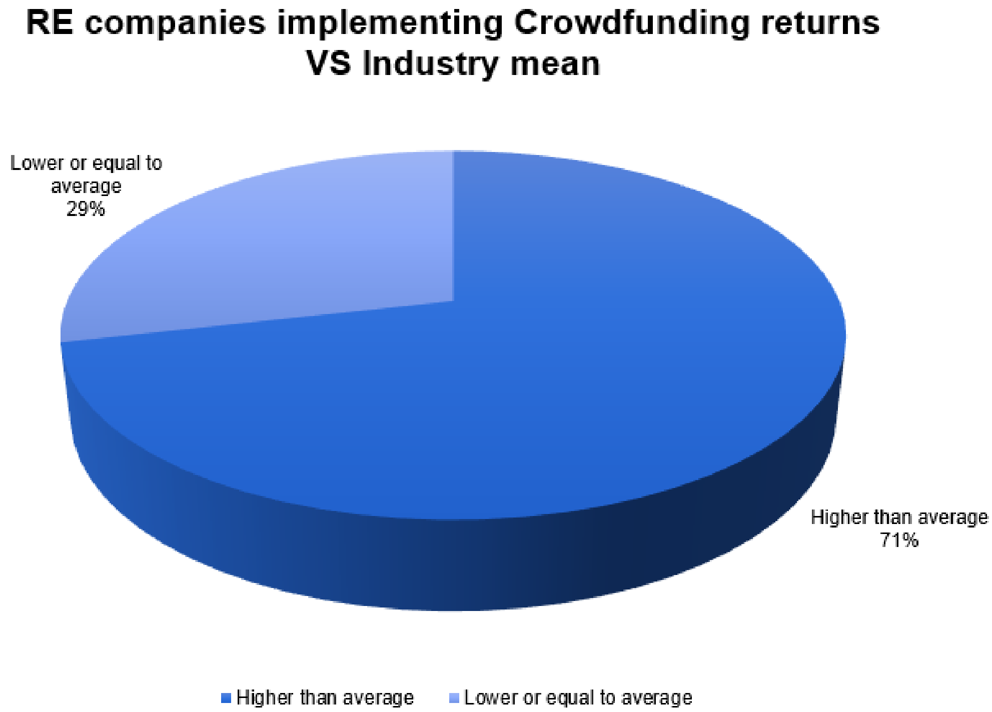
Figure 59 - Real Estate Companies - Companies Implementing Crowdfunding Returns VS RE mean



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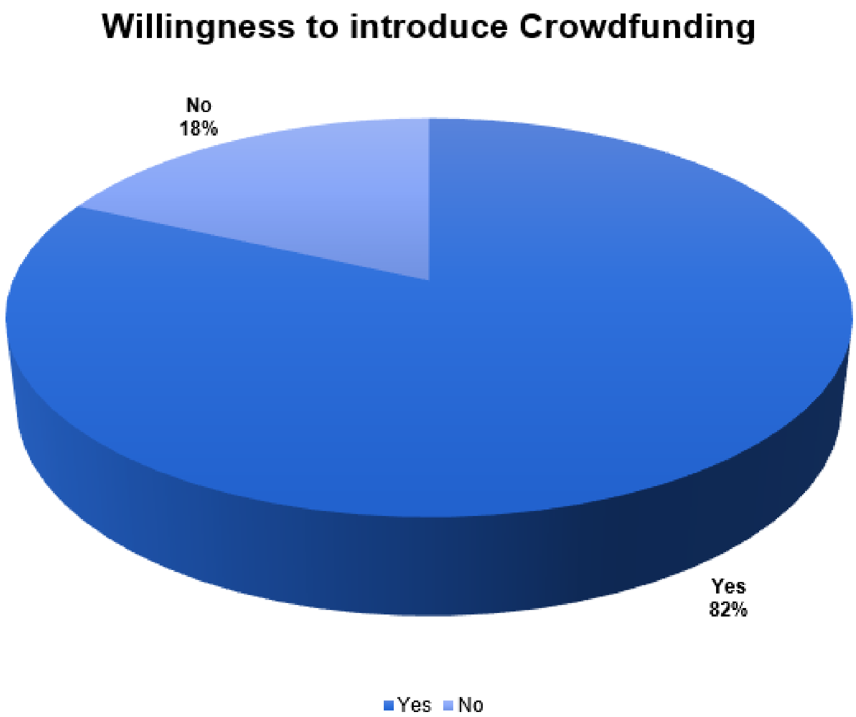

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RESUME - TABLE OF CONTENTS

RESUME

1) OPEN INNOVATION

1.1) WHAT IS OPEN INNOVATION

1.1.1) From "Innovation" to "Open Innovation"

When it comes to Innovation, a multitude of definitions have risen during the last century. An all-in-one definition of innovation is *advancements through the innovative effort that is developed within society and the economy, with the intervention of all kinds of agents. They may be public or private and include firms, the state, universities and non-profit institutions* (Caraça, 1993; Lundvall, 1992). The linear path of innovation is what today is called "closed innovation", and, thus, has given the pace to a more dynamic and interactive view of the phenomenon, also known as "open innovation".

1.1.2) Open Innovation: characteristics, drawbacks and benefits

Open innovation is defined as the use of purposive inflows and outflows of knowledge to accelerate internal innovation and expand the markets for external use of innovation (Chesbrough, 2006). It assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology (Chesbrough H., Vanhaverbeke Q., West J., 2006), with useful knowledge for value creation and idea generation *widely distributed* (Chesbrough H., Vanhaverbeke Q., West J., 2006). Simply, open innovation's backbone is *social interaction*. Understanding the way open innovation could integrate it in firms' processes requires and needs a multiple-level analysis (von Hippel, 2017). This leads to two main concerns: coordination and knowledge.

1.1.3) From "Search" to "Broadcast Search": applicative models

When considering introducing inbound knowledge flows, firms may consider shifting from local to broadcast search. Local search is a problem-solving approach based on internal core competencies and capabilities when searching for possible problem solutions. Broadcast search is an alternative problem-solving approach involving heterogeneous external actors in developing solution for a potential organization problem (Lakhani K.R., 2006). Broadcast search has been the ancestor of what is known as *crowdsourcing: blend of bottom-up, open, creative process with top-down organizational goals is called crowdsourcing* (Brabham D.C., 2013), or *the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call* (Howe J., 2006). Most popular forms of crowdsourcing are crowdsourcing contests, collaborative communities, crowdsourcing complementors and labor markets. Apart from crowdsourcing, a new phenomenon emerged: crowdfunding. The link between the two is that both draw on the power of crowds and networks.

1.2) CF: CHARACTERISTICS

1.2.1) Definition

CF lends itself to numerous and different definition in the modern literature. In this work, it will be defined it as an "*open call, run by the Internet, for the provision of financial resources by a group of individuals instead of professional parties either in form of donations, in exchange for a future product or in exchange for some form of reward*" (Schwienbacher A., Larralde B., 2010). Many small ventures still face some difficulties in raising outside capital (Cressy R., 2012). Stating this landscape, some organizations started leveraging on personal resources, human and social capital through bootstrapping (Greene P.G., Brush C.G., Hart M.M., 1999) in exchange for future compensation to access resources (Winborg J., Johannisson B., 2001) or relying on the Internet to directly seek for funding (Lambert T., Schwienbacher A., 2010).

1.2.2) CF models: classification

A first distinction must be made between three types of model: donation, active investment and passive investment (Belleflamme P., Lambert T., Schwienbacher A., 2010). By *donations*, crowdfunders receive funding without providing investors with a monetary reward (Glaeser E.L., Shleifer A., 2001); in passive *investment,* crowdfunders provide rewards of some sort to investors although keeping them distant from organization or project management (Belleflamme P., Lambert T., Schwienbacher A., 2010); in *active investment* crowdfunders provide investors with voting rights or different instruments for direct involvement (Belleflamme P., Lambert T., Schwienbacher A., 2010). These three different models determined the most spread classification in CF: *reward-based model, equity-based model, donation-based model, lending-based model*.

1.2.3) A crowd analysis: motivation for participation

Seeking for theoretical expectations why people engage and participate in CF means merge together different shapes of people's behaviour. *Philanthropic behaviour* is the macro-umbrella of the aforementioned shapes, considerable as "giving of financial and social capital to promote human welfare*"* (Bekkers R., Wiepking P., 2010). Human psychological analysis implies be the distinction between "motives" and "motivations". A motive is conceived as an individually developed and content-specific psychological disposition; a motivation describes the process of how an individual's motives become activated. A clear distinction between "intrinsic motivations" and "extrinsic motivations" is now needed. *Intrinsic motivation* describes the natural inclination toward assimilation, mastery, spontaneous interest, and exploration that is essential to social and cognitive development, representing the main source of enjoyment and vitality throughout life (Csikszentmihalyi M., Rathunde K., 1993). *Non-intrinsically motivations* affect individuals according to the way they "internalize" an external value or regulation on their ongoing persistence, behavioural quality and well-being and "integrate" them into their own figuring out as their sense of self (Ryan R.M., Deci E.L., 2010). Within the range of "intrinsic motivation", different determinants are identified: altruism, curiosity, social identification, direct identification, indirect identification, regional identification, fun, team characteristics, ideas characteristics.

1.3) ADVANTAGES AND DISADVANTAGES OF CF

SWOT analysis is a powerful instrument for qualitative analysis. Applied to CF, SWOT analysis would allow to distinguish opportunities and threats arising from the external environment and strengths and weaknesses proper of CF. In performing SWOT analysis (Figure 1), CF modern literature will be the reference. Qualifying CF strengths, the study is focusing internal origin benefits (Mercer 1992). Strengths identified are *keeping control, accessibility of funding, first market test, fund locally and raise globally, local community support, win-win mechanism*. Weaknesses are *potential for fraud, administrative and accounting challenges, lack of or misleading motivations*. Opportunities presented are *economic booster*, exploit *information society*, CF as *"alternative rather than substitute".* Finally, threats potentially arising are *low level of regulatory development* and *IP rights.*

1.4) CF APPLICATIONS: EVIDENCE FROM THE MARKET

For what concerns reward-based CF, transaction value will continue to grow at 7,8% CAGR, with a forecasted 2023's markets size equal to $ 11,986 billion in 2023 (*Figure 2*). Going forward with equity-based CF, it has a total transaction value in 2020 of $ 5,800 billion and is expected to grow at an annual CAGR of 11,4%, leading to a total amount in 2023 of $ 8,014 billion. (*Figure 6*). The analysis proceeds with lending-based CF. Lending-based CF is a market accounting in 2020 for $ 219,103, expected to grow across the forecasted period 2020-2023 at a CAGR of 9,8%, ending with a final amount in 2023 of $ 290,135 billion (*Figure 10*). Since, from the analysis previously considered, reward-based, equity-based and lending based account totally for almost $ 233,44 billion at 2020, it is quite feasible to consider, by backward induction, that donation-based CF has a global market size of almost $ 124,835 billion (*Figure 14*).

2) CF IN THE RE ESTATE MARKET

2.1) WHAT IS THE RE MARKET?

The "RE Market" is the market in which the sale's object between a buyer and a seller is the exchange of any kind of RE properties, like houses, lands, business premises, etc. (Woychuk I., 2013 The RE market could be divided in two segments: "rentals" and "properties". Further, it can be separate into "Private RE Market" and "Public RE Market". Another discriminant is the distinction between equity investment and debt investment. The RE Market can be also classified based on the RE "intended use", with two categories: "residential market" and "commercial market" (Biasin M., 2005).

2.2) NEW TECHHNOLOGIES IMPLEMENTATION IN RE

Since innovations are "processes that translate ideas or inventions into goods or services that create value of for which customers will pay" (Trott P., 2008), in the RE field it is important to account for the interests of different stakeholders involved in the process. Shifting from "RE innovation identification" to "RE innovation, a study conducted by Deloitte (2020) highlighted the commercial RE investors' growing preference for companies investing in technologies to make buildings "future-ready". User experience-related technologies able to thrive the RE industries are *digitization, data management, Artificial Intelligence, Digital Reality, Privacy and Cybersecurity.*

2.3) CF IN RE MARKET

2.3.1) From "RE" to "RECF": Historical Steps

Going through the history of RECF it is intuitable pulling over this process to that of CF spreading. RE investments have been attractive for investors for many reasons: competitive risk-adjusted returns, diversification, hedge against macroeconomic forces. Even though, all these pros have been difficult to access for some investors, limited from investor status and capital disposition. The most important piece of legislation allowing for RECF and, in general, higher involvement of the crowd in the investment landscape (CF) has been the signature on April 5th, 2012 of Jumpstart Our Business Startups Act (JOBS Act), allowing general solicitation and access to small investors.

2.3.2) RECF classification

RECF investments can be grouped in two main groups based on the type of "relationship" issued between platform/developer and crowdfundee: *equity RECF investment* of *lending RECF investment*. In *Lending RECF investments*, investor purchase part of specific property through a loan or a pool of loans linked to the specific RE, with the loan secured by the property until the borrowers repays in full. At the end of the investment period, investors will receive the capital plus the interests computed on it. E*quity RECF investment* is a CF investment through which small investors acquire a portion of ownership in a property; investors are entitled to a share of the cash flows arising from rents plus a share of the exit value in case of property sale.

2.4) RESEARCH QUESTION

Is not insane acknowledge the presence of some concerns, doubts and "shadows" floating over the macro-umbrella of CF and, by induction, over RECF.

Precisely, the Research Questions the Thesis want to address and answer are:

1) Which are the intrinsic/extrinsic motivations making stakeholders (RECF companies/platforms and small investors/crowdfundee) engage/not engage in RECF practices?

2) Which are the economic and social benefit experienced/perceived by stakeholders engaging in RECF practices with respect to other forms of investment? And which the potential drawbacks arising?

3) Is there a link between «better economic and social results/relationships» and «CF in RE»?

3) RE INDUSTRY OVERVIEW

3.1) HISTORY OF THE RE MARKET

3.1.1) History of the U.S. RE Market

The American RE market was witnessing a bust from the 1980's onwards. The RE bust was created by the "Savings and Loan Crisis". To prevent inflation, FED started raising interest rates, with the government allowing S&Ls to continue making bad loans, determining low lending activity. The government introduced legislative changes trying to recover the lending activity. The policies effort of boosting the people home buying would soon lead to irrationality, also called "America Dream" or "Manufactured boom" (Juneja P., 2019). As soon, the "manufactured boom" translated into the "manufactured crisis". What is next is history, better called "subprime mortgage crisis".

3.1.2) History of the E.U. RE Market

Between the late 1980s and 1999, European RE market started being liberalised and developed, attending a rapidly increase in mortgage markets expansion. The reason should be considered the legislative implementation (such that the European Union's Directive on Own Funds and Solvency Ratio). The increasing competition in the late century boosted the market growth as worsened required standards. As happened for the US RE Market, the RE market found itself with a lot of potential householders and appreciation of REs, creating a "fake boom", intended to transform itself in a "subprime mortgage crisis". The time extent of the crisis varied a lot among countries.

3.2) US VS UE: 2020 RE MARKET OVERVIEW

3.2.1) U.S. RE Industry 2020

Even though investors have become increasingly cautious and focused on investment's potential after the bubble crash occurred last decade, capitals to be invested remains abundant. Even though, risks will be present in this market: expected rates will be low, volatility, fluctuations in currency hedging costs. Sectors of high interest will be office/occupier, industrial and logistics, retail, multifamily, alternatives,

3.2.2) E.U. RE Industry 2020

Slow international trade and Brexit uncertainty is weighing on export demand and output in Europe, while demand continue to grow. European RE market will be highly affected by macroeconomic forces. This makes EU RE market a "double faced" market.

3.3) US VS UE: RE LEGAL FRAMEWORK

3.3.1) E.U. RE Legal Framework

In E.U., each country developed its own special statute, with some countries experiencing "subnational differences". In contrast, the presence or influence of a supranational or European constitutional law in RE has been limited so far. Some progresses have been made between 2007 and 2008, when the first edition of Draft Common Frame Reference (DCFR) has been presented to assist the drawing up of a political Common Frame of Reference (CFR). European initiatives activated attempting to homogeneity operates at five different levels: *institutional co-operation, knowledge exchange, substantive standards, academic analyses* and *EULIS*. Institutional co-operation is pursued by the collaboration between four main organisms: Eurogeographics, Permanent Committee on Cadastre in the EU (PCC), European Land Registry Association (ELRA) and European Land Information Service (EULIS). EU is also promoting initiatives and directive to impose common standards. The most important provision is European Land Information Service (EULIS) *providing access to land and property information across Europe to meet the needs of professional users/lenders, conveyancers and other professional groups* (JoinUp, 2020). EU further proposed an "Action Plan" in order to make Europe a centre of attraction for financial investments, allowing for new technologic implementations. Specifically, European Call to Action or Action Plan fall into the idea of creating a Capital Market Union (CMU).

3.3.2) U.S. RE Legal Framework

U.S. is characterized by the presence of a high fragmented and decentralized property regulatory framework. For the most part, Property Law is "local based", with institutions aimed at supervising the local rules applications and introducing national-level activities and laws on urban development. Two are the macro-regulations to be analysed: The Securities Act of 1933 and the JOBS Act. The Securities Act of 1933 is a federal regulatory scheme that was developed primarily for investor protection, providing strict regulation on securities' registration, handling, transfer of titles, and, most important, investors allowed to access investments and limitations to marketing and publicity of investments (exceptions are provided by 3(a)(11), 4(a)(2) and Regulation D requirements). The JOBS Act have helped bolster U.S. economic activity, liberalizing open call to investment to public. Two are the most relevant temporal steps in JOBS Act application. In September 23, 2013 Title II of the Act started been applied, allowing general solicitation for unregistered private offerings to accredited investors. Propaedeutic to Title II in expanding capital markets, in

May 16, 2013, Title III came into effect, allowing each investor, not only accredited ones, to invest under some conditions (American Jobs Act, 2012).

3.4) RE INVESTMENT TYPES

Main traditional RE investment types considered for this analysis are REITs, investment in Rental Properties, Residential Property Flipping, Wholesaling Houses, RE Mutual Funds, RE ETF.

4) RE INDUSTRY OVERVIEW

4.1) RECF PERFORMANCE

4.1.1) U.S. RECF Performance

According to a Massolution's report, U.S., in 2015 and 2014, accounted for 56% of the market, with a total market value of $0.56 billion in 2014 and $1.44 billion in 2015 (Figure 15). Trying to rebuild the market size for the time frame 2015-2020, support is provided by a forecasting report for 2020-2027, released by Kenneth Research. According to this study, the RECF total market size in 2027 will reach $ 868.98 billion, with a cash-on-cash multiplier of almost 25 times the 2020's value and a CAGR of 58,30% (Kenneth Research, 2020). Assuming the 2027's market size and forecasted CAGR, 2020's market capitalization for commercial and residential RECF platform is $ 34.88 billion (Figure 15).

4.1.2) E.U. RECF Performance

A research conducted by Massolution forecasted the European market share for RECF to be 42% in 2014 and 2015, respectively for a total market size of $1 billion and $ 2,57 billion (Massolution, 2015). With prudency, it will be assumed the EU market share over the period 2014-2015 was 20%. According to Statista, the EU RECF market capitalization (including also UK) was about $ 0.880 billion in 2018, so assuming a CAGR for the period 2015-2018 of 19,63% (Figure 16), remaining the same until 2020. In this work the CAGR over the forecasted period 2020-2027 will replicate the growth accomplished by the U.S. after the introduction of the JOBS Act, having 89,19 % growth for the first 5 years and 58,30% growth for the successive 2 years (Figure 16). In 2027, the EU RECF market will reach a total valuation of $ 76.50 billion under these "conservative assumptions".

4.2) MAIN COMPANIES OPERATING IN THE INDUSTRY

Analysing U.S. and U.E. RECF Platforms, the study will focus on the most important platforms. For what concerns U.S. RECF platforms, well known are Fundrise, iFunding, Prodigy Network and Realty Mogul. About E.U., main RECF platforms are Crowdestate, Housers, Reinvest24 and Bulkestate.

4.3) ADVANTAGES AND DISADVANTAGES OF RE CROWDFUDING: A COMPARATIVE ANALYSIS

4.3.1) Advantages of RECF

4.3.1.1) Lower costs for higher returns

RECF pursues lower cost of capital for owners and developers and higher risk-adjusted returns for investors by disintermediating the “middlemen class” generally standing between lenders and borrowers (Schonberger M., Koehler D.W., 2017). In this way, RECF projects provide investors with above-average annualized return, with an average value of 15%.

4.3.1.2) Stronger transparency

Online technology allows for easier information workflow, empowering multiple investment presentation and comparison. Investors have the possibility to know more about investment disposability, compare fee structures and the impact of costs over profitability, making more considered choices (Vogel J.H., Moll B.S., 2014).

4.3.1.3) Broader range of investors

. Using technology-driven instruments and implementing CF will allow developers to reach larger populations of investors online, reducing the minimum required to invest and, so, opening the doors to the entrance of thousands and thousands of new investors beyond accredited ones (IPF Research, 2016).

4.3.1.4) Enhanced Reporting for Users

Strictly linked to higher transparency level, the use of innovative procedures arising from CF for RE make individuals able to analyse and receive high quality information in an easier and timely way (Maarbani S., 2015).

4.3.1.5) Greater Diversification

Investors have a greater opportunity to diversity their portfolio of investment by dealing with a totally new class of assets (VerticalRent, 2020). Moreover, RECF is customizable with respect to each investor preferences, risk profile and return expectations.

4.3.2) Disadvantages of RECF

4.3.2.1) Risk level and investor expertise

Risk associated with one-to-one investment is much higher than the one related with Crowd REITs, where the overall risk is shared among an higher number of underlying properties (Frankel M., 2019).

4.3.2.2) Lack of liquidity

Generally, deals have a minimum holding period of three years, with five-to-seven years the most common time frame (Frankel M., 2019). Lack of liquidity strictly relates to the absence of a secondary market (Bogdanova O., 2018).

4.3.2.3) Lack of Due Diligence

Online RECF platforms could generate lack of transparency and opportune due diligence, not fully disclosing all the relevant information for a thoughtful investment at the time needed. This generates, in a consequential and concatenated way, an almost impossible creation of valid historical data and, where possible, most of the time records are misleading (University of Cambridge, 2017).

4.3.2.4) Regularity chaos

Rapid development of RECF caused some problems since the regulatory landscape does not evolved accordingly to these rapid changes. Opening to international investors has introduced more cross-border complexities, widespread by the absence of a real cross-jurisdictional harmonization (Kirby E., Worner S., 2014).

4.3.2.5) Lack of personal relationships

Finally, beside any economic or legal consideration, transferring all the operations related to a RE deal on an online platform potentially undermines the personal relations and, so, trustworthiness investors put into the whole system.

5) RESEARCH ANALYSIS

5.1) METHOD

Research Questions have been stated in Chapter 2. It is time to focus on answering to Research Questions following some simple steps: define which is the Research Methodology, describe the Analysis Sample, stand out the main Results and discuss about the study's implications on the existing literature.

5.1.1) Research Methodology

The first step has been identifying the target of stakeholders from whom acquire valuable insights and data to be processed, elaborated and evaluated. For the purpose of this Research, the main "parties" involved are two: 1) RE Platforms; 2) Potential Investors.

The second step has been detecting the best instrument or instruments to engage with targeted stakeholders in order to collect insightful information. The choice has been conducting Internet-based Surveys. The burst of

Covid-19 pandemic made difficult to personally interact with individuals. The decision to produce two different and distinct models come from the different insights and information to be acquired from Investors and RE Platforms. Survey draft has been composed by four main sections, aiming each one at acquiring different kind of information. Interviews are presented in Appendix (Figure X and Figure Y). For what concern the methodology used to reach the target investors and RE platforms' representatives, concerns determined by Covid-19 situation made LinkedIn the best interaction platform. In particular, the "reaching approaches" implemented have been mainly two, each one concerning a specific category of stakeholders:

1) LinkedIn groups: this approach has been aimed at engaging with the wider range of possible investors.

2) LinkedIn Direct Contact: initially, RE platforms' representatives have been contacted through institutional e-mails. Covid-19 lead to rethinking about the strategy. A valuable solution has been contacting them through a more "effective" way than emails: LinkedIn.

5.1.2) Sample Description

As stated, for the purpose of this Research, the main "parties" involved will be two: RE Platforms and Potential Investors. Going deeper:

1) RE Platforms: Companies operating in the RE industry with diversified portfolio of activities. Representatives have answered on the behalf of platforms.

2) Potential Investors: in this Thesis the definition of Investors will be the broader possible. So, it considers people investing or willing to invest their money in any type of securities.

Going to the Sample dimension, "Potential Investor" Survey has been filled 41 times. About RE Platforms Survey, it has been filled 13 times, with representatives coming from different companies.

5.2) RESULTS

Results of the analysis are presented from "Figure 18" to "Figure 61" in the "Figure and Table Index".

5.3) DISCUSSION

Research analysis tried to gain empirical evidences on three different RECF dimensions: which are the motivations making platforms and individuals engage in RECF practices, which are the advantages and disadvantages for parties involved and the existence of a link between better economic performance for the industry and companies and CF in RE. Executives implementing or attempting to implement CF in their businesses are mainly moved by "Accessibility of Funding", "CF as a way to scale the growth of the industry" and "Alternative financing to ordinary funders". Literature evidenced the ability of CF in providing a valid alternative to collect money; the key of success is the engagement with a broader range of individuals. Applied to RE, attracting the crowd would mean not only differentiating the source of capital, but also overcome the difficulty in dealing with accredited investors. Flipping the coin, what "threaten" executives from opening the doors to RECF are RE specific issues, like developers' attitude and relationships' complex nature. What is fundamental for this analysis is the partial mismatch in executives' thoughts on individuals' motivations to invest in RECF and effective potential investors' perceptions. While executives think individuals are mainly moved by "Monetary Rewards" and perceive RECF as less risky, on the opposite, interviewed potential investors still perceive RECF enabled to totally hedge from investment risk. Moreover, statements like "Participate in the creation of something great and real", "Helping the realization of buildings for social purposes", "Support a social cause, for example people not having the possibility to dispose of an house", "Sense of success of investing in RE", "Curiosity of relationship management with developers" punctually exemplify this missing piece in RE companies' perception of potential investors. It is fundamental for executives truly understand what moves the crowd in interacting with CF in RE, learning about the philanthropic view on CF interaction, implementing it in their business plan. This is the only best-fit strategy to enlarge the crowd dimension and, effectively, exploit their perceived advantages of RECF: diversification of money sources and higher disposition of funds. This is even more tightening considering two main advantages perceived by executives through CF: broader range of individuals and lower time to collect money. Risk is conditioned by the liquidity level of the underlying market. RECF is still a low liquidity market; managing the creation of secondary platform for investment exchanges would be fundamental in handling investors' perceived risk and volatility. It is even more relevant since perceived as main disadvantage of RECF also by potential investors. In fact, if it is true that individuals perceive lower stake of money investable, solid underlying market, and, in part, lower risk compared with other securities and other RE investment instruments, these features could be undermined by drivers like project development confusion, lack of management ability and skills, scarce personal knowledge of the market and lack of property regulation. A proper due diligence and cohesiveness on pulling policy development would be key in allowing the industry to growth and exploit its potential, stimulating trustworthiness and confidence with practices. As natural consequence, familiarity with RECF would be spurred, significantly reducing the overall risk sensed. Describing the way RECF could affect and determine better economic performances for the industry is a natural consequence of what stated so far. This 360° assessment of individuals is fundamental to really exploit higher than average returns, great portfolio diversification, lower costs and alternative financing. Changes in executives' behaviours need to be supported by radical changes in regulatory framework, that should be addressed by principles of cost-effectiveness, uniformity, cohesiveness and efficacy. First steps have been moved. What will be key is the persistence, tenacity and dedication of all actors involved in creating the best conditions to make the most of a 73% - growing market.

ABBREVIATION USED

RECF: Real Estate Crowdfunding

RE: Real Estate

CF: Crowdfunding