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Individual Determinants of Self-employment Entry in Social and Conventional Entrepreneurship: Are co-operatives different?

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Abstract

The paper provides theoretical and empirical analysis on the choice problem of individuals' self-employment entry. With more focus on social entrepreneurship, the authors attempt to answer the question of how self-employment entry is different for social and conventional entrepreneurship. Drawing on the national employment survey, the empirical analysis and methodology approach allows the employment status preferences between co-operatives self-employment, independent self-employment, and employer self-employment. For the comparative analysis purpose, the probability of choosing paid job employment is also addressed. The empirical results indicate that the main positive determinants of social entrepreneurship entry are the risk tolerance, basic education, secondary education, and the attractiveness of rural areas. The results reveal also evidences of weak entrepreneurial culture in the Moroccan context. By comparison to conventional entrepreneurship, the empirical section contains additional information. The paper moves policymakers close to individuals' determinants and contributes to the socio-economic incentive for social entrepreneurship.

Keywords: Social-Entrepreneurship; Business-entrepreneurship; Co-operatives

1. Introduction

Entrepreneurship is considered to be determinants for jobs creations and a catalyst for economic growth (Acs et al., 2016). The entrepreneurial function under its different forms of self-employment is a vital component in the process of growth of output and productivity” (Baumol, 1993). Self-employed refer to “those who are working on their own account or with one or a few partners or in cooperative, hold the type of jobs defined as a "self-employment jobs." i.e. jobs where the remuneration is directly dependent upon the profits derived from the goods and services produced. Self-employed workers include four sub-categories of employers, own-account workers, members of producers' cooperatives, and contributing family workers”. Also, it’s defined as ventures of necessity which takes a use of entrepreneurship in the absence of other sources of income (Braunerhjelm, 2010; OECD, 2012). And also defined as “persons include employers, own-account workers, members of producers’ co-operatives, and unpaid family workers” (OECD, 2014, p. 138).

Bringing clarity to this phenomenon is important while the self-employment entry remains vital for economic growth and social well-being (Kelley et al., 2013, p. 2). As a result, policy makers are aware of self-employment entrepreneurship as a way to solve social problems (Acs et al., 2016). Accordingly, the self-employment under social and business entrepreneurship are getting high interest from government policies. Its complexity is challenging for policy makers design (Simoes, Crespo and Moreira, 2016), which requires a deep understanding of its functional determinant. Such understanding is important in defining the good measures that capture the existence of self-employed and their ecosystem transitions and also ensure the efficient public resources allocation.

During the last decade, Moroccan government is making continuous efforts to support entrepreneurship ecosystems (Kabbaj et al., 2016). From the one hand, a great intention has been given to social-entrepreneurship trough co-operatives encouragement (Outla and Hamzaoui, 2018). Policies are based on the fact that social entrepreneurship trough co-operatives is an important force behind the creation of additional value in the society (Loxley, 2010). In this vain, some authors see the big role of co-operatives considered as entrepreneurs (Dana and Dana, 2008) and community developers (Brennan et al., 2014). From the other hand, business entrepreneurship is gaining supports with an inventory of programs in the North African countries, including Morocco (cho et al., 2016). The word bank self-employed indicator - including all categories of entrepreneurs - shows that around 50% of Moroccan employees are self-employed. However, the indicator witnessed about a decrease of self-

employment for the period 1991-2018. Developing social and business entrepreneurship is presented as a necessity to achieve a sustainable socio-economic development. However, this can't be achieved without understanding the individual-level determinants to self-employment entry. The focus here is not on the policies devoted to support development of entrepreneurship or the innovation in entrepreneurship (Arrow 1962; Mansfield 1991). Thus question will be important further, after defining the determinants to the start of ventures.

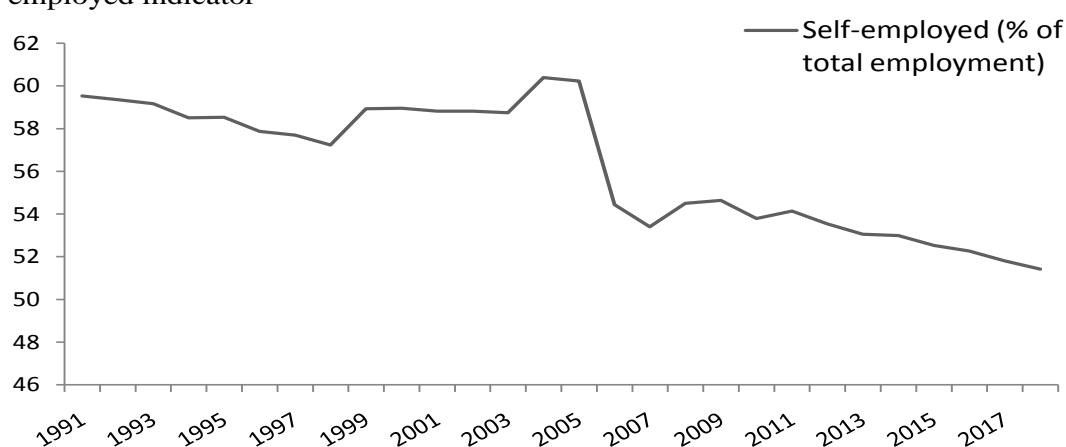
In fact, the entrepreneurship literature is known to be with interdisciplinary nature (peneder, 2009). The behavioral perspective is coming from managerial and business strategies literature. On the other hand, the economic system perspective is coming from economists that primary highlight how the entrepreneurial-ecosystems work. In turn, the distinctive perspective between self-employment and salaried work is from labor economists. Then, the psychologist relates personal determinates to entrepreneurship, and sociologists address the symptoms of the entrepreneurial behavior. Consequently, the perspective conducted in this paper is more related to the economists' point of view. The authors attempt to answer the practical key question of how the self-employment entry is different for social and business entrepreneurship. Additionally it conducts a comparative analysis for paid job employment. The comparative importance of self-employment is measured essentially by individual utility and choice differential between paid job employment and self-employment (e.g. Fujii and Hawley 1991). Thus, the paper takes up this issue by analyzing the individual determinants of entry into self-employment in the framework of social entrepreneurship trough co-operatives, conventional entrepreneurship trough independent self-employed and employer self-employment and finally the individual determinant for wag employment.

For public policies adjustment, an individual who have the idea of self-employment rather than paid job employment must find it easier to start new business weather in the framework of social or business entrepreneurship. However, it's likely important for policies to give more attention to social entrepreneurs because they often lack of management capabilities (Figueiredo and Franco, 2018). In order to decide the best policy intervention especially the one devoted for social entrepreneurship, government must adjust their policy by taking into consideration the differences conditioning the individual-level and individual drivers of self-employment and wag employment. A good understanding of the drivers to self-employment is key factor to shape policy efficiency. Public policies may optimally adjust their financial programs and policies in targeting individuals by differencing social and business entrepreneurship drivers to self-employment.

To the best of our knowledge, no study has taken into consideration the differences between the self-employed categories and the heterogeneity of the individuals and their diverse characteristics. Thus, this paper takes up this issue with a comparative analysis between all groups of individuals. To this aim, the paper is divided into two sections. The first section is the literature review that may provide useful understanding for the state-of-the-art related to economic, social, and policy implications. It's divided into three parts: i) a comparative theoretical analysis for social and business entrepreneurship. ii) Self-employment in the entrepreneurship framework. ii) Individual determinants in literature. Second, the paper provides the modeling procedure and discusses the empirical results

Figure.1

Self-employed indicator



Note: Self-employed (% of total employment), (modeled ILO estimate); International labour Organization, ILOSTAT database. Data retrieved in April 2019.

2. Literature review

The main objectives of the literature review are to highlight the basic relationship between social and business entrepreneurship, to discuss self-employment in the framework of social and business entrepreneurship, and to present the individual determinants for self-employment entry.

2.1. Social entrepreneurship and conventional entrepreneurship

The first major idea in literature suggests a process of continuity between social and business entrepreneurship. Some authors claims that theories and insights inherent to social entrepreneurship could gain clarity and discipline from the continuous examinations of the

existing entrepreneurship framework (Dacin and Matear, 2010). In other words, the importance of social entrepreneurship flourishes from the examinations by scholars of theories related to entrepreneurship framework and making it valuable in ways that address the social entrepreneurship (Dacin and Matear, 2010). Even some authors suggests that social entrepreneurship crosses academic studies and transcends the domains of non-profit management, social disciplines and entrepreneurial scholars (Dart, 2004; Mair and Martí', 2006; Perrini, 2006). Furthermore, the relationship between social and business entrepreneurship is clearly highlighted in the variety of definitions adopted for social entrepreneurship. For example, some authors defines social entrepreneurship as a process of businesses principals operated by non-profit organizations or government (Austin, Stevenson, and Wei-Skillern, 2006; Mort, Weerawardena, and Carnegie, 2002; Sharir and Lerner, 2006). In the same vein, others see it as a practice that uses resourcefulness of traditional entrepreneurship and make it valuable to impact society (Seelos and Mair, 2005). Others define it as the practices of conventional entrepreneurs with social responsibility (Baron, 2005; Young, 2001) or social innovation (Bornstein, 2004). Still others see it as sustainable business that economically generates social value (Emerson and Twersky, 1996; Robinson, 2006). Accordingly, we remark that there is an agreement that social entrepreneurship is a phenomenon that brings its economic techniques and perspectives from traditional entrepreneurship. And it's likely conditioned to use the same resources as the conventional entrepreneurship (Meyskins et al., 2010). However, it is still characterized by no unified definitions (Short et al., 2009), forms, and boundaries (Peredo and McLean, 2006; Perrini, 2006). And even sometimes it triggers controversial discussions among scholars on its capacity to associate between social and economic outcomes. Some authors for example ignore the economic outcomes in their analysis, while others discuss social entrepreneurship and confirm its association to economic outcomes (Mair and Martí, 2006; Zahra et al., 2009). Based on this, while the creation of social changes depends largely on the economic factors such as financial resources some author's claims that the focus should be giving to both social and economic outcomes (Dacin and Matear, 2010). Similarly, related to profit-seeking, Friedman (1970) argued that making profit could be the only social aim of a venture. This supports the idea that all businesses are socially concerned and engaged in social human goals (Davis, 1973), and the economic outcomes generated by any entrepreneurial business cannot be easily distracted from the social advantages (Schramm, 2010; Venkataraman, 1997). Even some authors suggested that social value is also generated by successful enterprise (e.g.

employment creation), and then the conventional entrepreneurs can also be defined as social (Mair, 2006).

Appropriately, social entrepreneurship is simultaneously conditioned by social value and revenue outcomes. Thus, the balance between social and financial aims is the key factor for social entrepreneurship to be sustainable (Dacin and Matear, 2010). In this vein, some authors suggest that social problems can be solved by steady revenue flow (e.g., Boschee, 1995, Thompson and Mac- Millan, 2006, Perrini and Fazzolari, 2006, Robinson, 2006). This idea also supports the synergetic relationship between social and business entrepreneurship. Social entrepreneurship brings an important concern that is the capacity to construct social and economic factors into the concern of business management and mutually to satisfy the stakeholders (Dacin and Matear, 2010).

In contrast, some studies support the idea that social entrepreneurship is distinct enough from other forms of entrepreneurship so that it can possess its own body of theory (see, e.g., Austin et al., 2006; Hockerts, 2006; Murphy and Coombes, 2009; Weerawardena and Mort, 2006). Nevertheless, this process and its controversial discussions among scholars will likely take time to resolve (Dacin and Matear, 2010). In this vein some authors highlighted the dissimilarity across social and business entrepreneurship in relation with a four dimensions construct: Primary mission, individual component, resources and operating sector (Dacin and Matear, 2010). These authors suggest that, the individual differences and operating sector demonstrate the abundant similarities. However, the resources/processes and primary mission dimensions are showing some dissimilarities.

Unlike business entrepreneurship, social entrepreneurship is giving more attention to the external resources such as infrastructures, macro-economic (Wei-Skillern, 2006) institutional, cultural and relational (Dacin and Matear, 2010). Accordingly, to engage the external resources is suggested to be a distinguish side of social entrepreneurship. For the relational resources such as social skills and social capital (Baron and Markman, 2000), social entrepreneurs are likely to use it in a cooperative manner and tend to share it with other organizations. Unlike business entrepreneurs that tend to set up barriers to entry through resources mobilization (Dacin and Matear, 2010). For the cultural resources that are investigated as internal to organizations in business entrepreneurship literature (Kraybill and Nolt, 2004), social entrepreneurship – that is highly defined in a social external context – can differently take more benefit from it. Furthermore, for the institutional resources such as legal, political and institutional resources, social entrepreneurship – that occurs in spatial context of significant socio-economic problems – is likely more determinant than business

entrepreneurship in creating a resources that settle the absence of institutions in a given spatial-context (Dacin and Matear, 2010).

Another idea that supports social entrepreneurship as a distinct from business entrepreneurship is the entrepreneurial mission. The profit-seeking as a principal mission of conventional entrepreneurship is inappropriate for social entrepreneurship as it make social venture managers distracted from their social mission (Foster and Bradach, 2005). Nevertheless, some authors see that social entrepreneurship may also hold the profit-seeking principal, depending on individual differences (Simms and Robinson, 2009), or the entrepreneurial mission of social venture and its priority for social and economic aims (Dees and Elias, 1998). Social entrepreneurship can be for-profit or not-for-profit that addresses the social problems (Martin and Osberg, 2007). Or can be hybrid with combination of both (Battilana et al., 2012).

Generally talking, the literature related to social and business entrepreneurship is presenting no unique universal-agreed definition, and most of times there exists high confusions (Chmielecki and Sułkowski, 2016; Ahmad and Seymour, 2008). For more insights about the literature discussions associated to social and business entrepreneurship you can see Dacin and Matear, (2010). In fact, to discuss literature or finding good consensus among scholars is not in the principal scoop of this paper. The attention here is mostly devoted to the principal characteristic of both social and business entrepreneurship that is the self-employment choice and its individual determinants. Thus, one may say, that the literature framework that supports the empirical part is more in accordance with the literature that suggests a synergetic relationship between social entrepreneurship, business entrepreneurship and self-employment.

2.2. Self-employment in the framework of social and conventional entrepreneurship

For empirical reasons, a considerable amount of scholars on entrepreneurship relies on self-employment analysis (Audretsch and Thurik 2001; Fonseca et al., 2001). In this vain, a common approach is to define entrepreneurial activities as a ratio of business/number of self-employed (Dvouletý and Mareš, 2016a, 2016b). However, the entrepreneurship/self-employment measurement is an area of research that still underrepresented (Acs et al., 2008; Marcotte, 2013). The national statistics methodology of measurement still differs (Congregado (2007) and the empirical studies highlight the measurement of entrepreneurship/self-employment differently (see e.g. Marcotte, 2013; for an overview of the existing measures).

Yet, the self-employment consists of a very heterogeneous group as a collection of different activities (Szaban and Skrzek-Lubasińska, 2018) involved in productive entrepreneurship (Blanchlower, 2000). In this sense, self-employment is a productive entrepreneurship that represents the employment push factor (Braunerhjelm, 2008). This vision regarding self-employment as key force for employment is more appropriate in public policies framework.

Generally, two important categories are representing self-employment entry: the dependent self-employed and the independent self-employed. Dependent self-employed; who work under supervision of exclusively one employer and independent self-employed who work for their own choices and take their own risks. Dependent self-employed are not considered like investors and risk takers (Szaban and Skrzek-Lubasińska, 2018). However, the independent self-employed individuals conduct their own business and face often their own risks. Based on this idea, some authors relay self-employment to entrepreneurship with the explanation that the self-employed individuals must have the abilities and entrepreneurial skills to manage risks and address their business activity (Guerra and Patuelli, 2016; Eckhardt and Eade, 2011; Salgado-Banda, 2005). Either in co-operatives or conventional small business the individual self-employed needs entrepreneurial capabilities to conduct and support their business. Hence, social entrepreneurs are the drivers of social entrepreneurship and conventional entrepreneurs are the drivers of entrepreneurship, and both social and businesses entrepreneurs are self-employees running their own businesses to fill market gaps (Szaban and Skrzek-Lubasińska, 2018). In this sense, the Global Entrepreneurship Monitor (GEM) defines self-employment in the entrepreneurship movement as an attempt at new business creation (GEM 2015/2016).

Likewise, some authors distinguish between voluntary self-employed and enforced self-employed, and suggest that the voluntary self-employed are more entrepreneurial than enforced self-employed (Szaban and Skrzek-Lubasińska, 2018). However, either the self-employment is enforced to tackle unemployment (Golpe nad Carmona, 2010), to break the fact of being employed (McKeown and Phillips, 2014) or to be considered as a precarious work (Cranford et al., 2003; Muehlberger, 2007; Wall, 2015), it remains in the framework of entrepreneurship (Cullen, Johnson, and Parboteeah, 2014; Fillion, 2011; Brown and Uljin, 2004). This authors claims that self-employment is part and parcel of entrepreneurship and suggest that at any case the distinctive criteria between entrepreneurship and self-employment can be taken only of practical reasons; for example, when government policies decides who can benefit from each financial programs.

By contrast, in other contexts self-employment is not included in the entrepreneurship framework and suggested to be an indication of labor market pathology (Johansson, 2005; Szaban, 2016). In Schumpeter literature for instance, the self-employed are mentioned in the category of replicative businessmen who make small businesses like others and not considered to be like entrepreneurs (Szaban and Skrzek-Lubasińska, 2018). In the same vein Drucker, (1985), suggest that not all businesses owners can be considered like entrepreneurs. For some authors, when the business activity is not under an organizational base, then it means self-employment and not entrepreneurship (Perulli, 2003). In other words, one-person business is engaged with minimum implication and risk-bearing (Cieślik, 2015; 2016) and note like entrepreneur under organizational base.

In addition, there is a literature discussion that highlight the relationship between self-employed and entrepreneurs in the framework of “opportunity” (Krueger and Brazeal, 1994) and “necessity” dichotomy (Mühlböck et al., 2017). For instance, Block and Sandner, (2009) suggest that the entrepreneurs under necessity remain shorter in self-employment then entrepreneurs under opportunity. However, there are no sufficient empirical evidences that support those necessity entrepreneurs are also presenting entrepreneurial skills (Szaban and Skrzek-Lubasińska, 2018). To be a forced self-employed may be their own priority, choice, and risk. Even when a person decide to be dependent self-employed for some reasons like enhancing financial resources, there are still capable to show their entrepreneurial skills (Szaban and Skrzek-Lubasińska, 2018). However, there is a large possibility to run business with lack of entrepreneurial capacities under self-employment.

Generally, the self-employed may be considered in the framework of entrepreneurs, but not every self-employed is entrepreneur and not every entrepreneur is self-employed (Casson, 2003). Self-employment related to social and business entrepreneurship is a phenomenon under continues interactions within scientific disciplines and their literature. Even it appears difficult to reach a complete consensus related to their nature and definitions. This is known to be with multifacetedness nature, and the strength of the link between the concepts can change depending on the disciplinary. For instance, contrarily to other disciplines like economic and sociology, in the psychological context, the entrepreneurial motivations as a base of classification may reduce the gap between entrepreneurs and self-employed with different levels of motivations. For more insights about the literature discussions associated to self-employment and entrepreneurship comparative theoretical analysis you see Szaban and Skrzek-Lubasińska, (2018).The general resume of the paper indicate that, under different

disciplines, there is no significant unique definition of both self-employment and entrepreneurship.

Additionally, when we distinguish using the number of employees' classification, there is one or more legally incorporated employees in the entrepreneurial framework (Blanchflower and Oswald, 1998). However, in self-employment framework, self-employed individual is generally working with no employees (Blanchflower and Oswald, 1998). For more insights about self-employment categories in term of their definitions and nature you see (Szaban and Skrzek-Lubasińska, 2018).

The aim of this paper is to address the individual determinants that supports doing business in both social and conventional categories. Thus, the empirical study of this paper gains its legitimacy from the individual determinants to choose self-employment. Co-operatives organizations and independent small business have values in common; both are in the choice to be self-employed at the first stage. The next stage is for them to drive in a competitive market due to the entrepreneurial capabilities (Kirzner, 2008, p. 11). In this situation, the entrepreneurial competences are a must (Szaban and Skrzek-Lubasińska, 2018). Thus the second section highlights the individual determinants for self-employment entry that will be used in the empirical model and analysis.

2.3. Individual determinants of self-employment entry

In the last decades, an exponential interest have been devoted for self-employment phenomenon, conducting to a large theoretical and empirical body around the concept of self-employment, with many agreements, numerous points of views and different empirical results (Simoes, Crespo and Moreira, 2016). A growing framework of literature is contributing to this area by discussing at the individual determinants with respect to self-employment. However, one of the difficulties in highlighting self-employment determinants is the heterogeneity of the individuals and their diverse characteristics (Leoni and Falk, 2010; Szaban and Skrzek-Lubasińska, 2018). However, for all cases, these diverse individual determinants are a source of motivation behind the decision toward one category of self-employment rather than another. Following the standard theory of self-employment choices (Mortensen 1986), a rational individual make the choice based on the excepted utility from one category of employment rather than other. Furthermore, in some cases, it can be considered as an involuntary transition or under conditions toward one category of employment. Whatever the case, the standard theory assumes that the utility differential between self-employment categories (and other employment stats) depends on a set of individual determinants.

Therefore, providing knowledge towards the individual determinants to self-employment entry is increasingly important. In this field, the literature examines six categories of determinants. i) Basic individual determinants, ii) Family relationship determinants, iii) Human capital determinants, iv) Personality characteristic determinants, v) Information and financial resource determinants, vi) Health condition determinants. Table 1 below resumes all the categories, their respective sub-categories names, and the corresponding values.

2.3.1. Basic individual determinants

Regarding the first category, one of the important basic determinants is gender. A number of studies indicate that women and men are different regarding the self-employment characteristics (e.g. Georgellis and Wall 2005). Men have stronger tendency to be in self-employment than do women (Koellinger et al., 2013; Verheul et al., 2012). This is due to the fact that men is less risk averse than women (Dohmen et al., 2011). Therefore, women avoid more courageous strategies related to capital invested (Stefanović and Stösić, 2012) and then less engaged to move toward self-employment. In this vein, some authors find explanation in the differential between women and men regarding sizable earning (Hundley 2001) and motivation toward potential returns (Gurley-Calvez et al., 2009). Other examples supporting this hypothesis include the empirical study of Sorgner and Fritsch (2013), Johansson (2000), Nykvist (2008), Georgellis et al. (2005a). In addition, another idea suggests the importance of predominated sectors in influencing the female self-employment choice. Majority of sectors are more attractive for males' self-employment (Vejsiu, 2011) and for some authors, this is related to the fields of studies orientations between males and females (Leoni and Falk, 2010). Charles and Bradley (2002, p. 580) for instance suggest that females are more represented in health, education and humanities fields, otherwise, are less represented in engineering, mathematics and computer sciences. Accordingly, females are more represented in service sectors (Vejsiu, 2011).

Another elements supporting female differentiation are related to the external financial resources (Carter and Shaw, 2006) and social capital (Koellinger et al., 2013). The first element suggests that the external financial resources are barrier to entry into self-employment for women. This is related to females' tendency for internal resources. For some authors, the explanation of this behavior might be related to discrimination factor against women (Sena et al., 2012). The second element indicates that female's networking is less diversified than male's networking. The disadvantage is caused by women responsibilities

toward family, less personal contacts or contacts based on friendship and family, and the less power in their job status.

Among other things, women self-employment is found to be more related to high educational factor. Women with high educational background are more supposed to decide for self-employment (Hughes 2006). Furthermore, self-employment for women plays a good substitute of labor-market unemployment that is caused generally by women's choices regarding family responsibilities and gender discrimination characterizing labor markets (Rosti and Chelli, 2005). Therefore, the theories of discrimination explains the females choice for self-employment as an escape strategy (Rosti and Chelli, 2005; Williams, 2012).

The second basic determinant is age. Some authors suggest that the probability of choosing to be self-employed is positively correlated with age (e.g. Delmar and Davidsson 2000). This may rise due to the fact that human capital, social capital, and financial capital are positively correlated with time. It also may be related to the desire of flexible employment based on the limited health situation (Cahill et al., 2013). In this sense, older people are more likely to be self-employed based on the accumulated resources or health condition. Storey (1994) for instance finds that peoples between 25 and 45 years are more likely to be in self-employment activity and between 35 and 44 for Parker (2009). However, others indicate that age is negatively correlated with self-employment choice. This may be rise due to high risk aversion level, long time work and stress in activities related to advanced age (Hintermaier and Steinberger, 2005).

A third line of reasoning on individual basic determinant is related to marital status. In the majority of studies, the marriage has shown a positive effect on self-employment. Marriage is a key factor that facilitates self-employment activity (e.g. Taniguchi, 2002; Budig, 2006). This is related to the mutual supports between husband and wife and their mutual encouragement for choosing self-employment (Parker, 2007; Bosma et al., 2004). These authors find that spouses are a source of knowledge spillover and emotional support. However, related to the neoclassical theory of family (Becker, 1991), we may expect a negative influence of marriage on self-employment choice. The neoclassical theory suggest that spouses are both getting specialized - in either market work or house work - in order to jointly maximize the utility of marriage. Consequently, to be more specialized in market work is in favor of self-employment, otherwise, it may have a negative influence. If we hypothesis that domestic work and childcare are more attributed to women, then we except a positive influence of marriage on self-employment.

Additionally, some authors address the marital status by criticizing the fact of considering the marital status through dummy variables with value 1 if individual is married and 0 otherwise (Özcan, 2011). In reality, through recent demographic and social transformation, the marital status is becoming more complex including other states such as cohabitation, divorce or widowed. Neglecting other states is problematic, since important features may emerge differently (e.g. specialization level). Accordingly, diverse heterogeneous results are reported in many empirical studies for different countries e.g. Ahn (2010) for USA; Eliasson and Westlund (2013) for Sweden; and Johansson (2000) for Finland. The empirical results of this paper highlight the case of Morocco.

Finally, the environment divided into rural and urban status is determinant for self-employment entry. It is an aspect that highly may influence individual decision to become self-employed. In fact, the rate of rural unemployment differs from urban unemployment, the rural area is supposed to be with higher unemployment rate. Thus, based on the recession-push theory (Taylor 1996; Martinez-Granado 2002) that consider unemployment as a push-factor for self-employment entry, we suspect that in rural areas individuals are more attracted to self-employment especially to co-operatives (Perotin 2006). In the same vein, urban areas are characterized by high business density (Audretsch and Fritsch 1994), well established enterprises and strong competition (Shapiro and Khemani 1987). Thus, it's likely more difficult for co-operatives and small businesses to integrate into urban markets (Audretsch and Fritsch 1999).

2.3.2. Family relationship determinant

Being head of household, spouse, individual in parental or no parental relationship with the head of household may differently influence the choice for self-employment entry. According to the neoclassical theory of family (Becker, 1991), being a head of household may be a synonym of high responsibility especially when social context honors men for labor-market and women for domestic work (Sena et al., 2012). Thus, in first stage, for more security related to family obligations, the father may choose wage employment. In second stage, for personnel and financial involvement self-employment is more appropriate (Hundley 2001; Friedman, 1970).

In the same direction, spouse may be in the choice (obligation) for domestic work due to different social and economic reasons or in the choice for employment and self-employment

as an escape strategy (Rosti and Chelli, 2005; Williams, 2012) or aiming for personnel and financial involvement (Hundley 2001; Friedman, 1970).

Going as step further, being with parental relationship (children) may influence the choice for self-employment and wage employment, the cause may be related to limited familial responsibilities for children (Becker, 1991). Relatively, some studies have shifted the intention from family relationships to friends, colleagues and their influence on self-employment choice (Lafuente et al., 2007). However, no studies have been devoted for the familial membership status and its influence on self-employment choice. This paper highlights this question and analyzes the influence of familial position status on the choice of different employment categories.

2.3.3. Human capital

The first indicator related to human capital is the educational level. The theoretical framework explains the importance of education for self-employment in different levels and forms. From the one hand, it is suggested that individuals with high educational level find more opportunities in wage employment (Van der Sluis et al., 2008). From the other hand, high educational individuals can create more opportunities for self-employment entry and dispose of the managerial skills to success in self-employment (Lucas, 1978). This attests for certain ambiguity in literature that can be gathered into three groups. The first suggest a positive relationship between education and self-employment (e.g. Kim et al., 2006; Zissimopoulos et al., 2009). The second suggest the opposite relationship or insignificant relationship (Clark and Drinkwater, 2000; Sluis et al., 2008). And the third gives explanation of this instable relationship, concluding that education and self-employment entry are in U-shaped relationship (Poschke, 2013; Blanchflower, 2000; Åstebro et al., 2011). The main reason for this is the differential in necessities and motivations among individuals toward self-employment (Joona and Wadensjö, 2013). At the first stage of low abilities, low educational level can be a push-factor to self-employment under necessity, risk of losing job or unemployment (Von Greiff, 2009). In this case, education and self-employment are in decreasing relationship. In the second stage, high educational level is an opportunity-driven to self-employment (Lucas, 1978). In this case, education and self-employment are in increasing relationship. Generally, the ambiguity in this field is related to heterogeneity of individuals which in turn impact the choice for self-employment (Leoni and Falk, 2010; Szaban and Skrzek-Lubasińska, 2018). Yet, no study has proposed a distinctive analysis for

all self-employment categories, which can bring more clarity on the heterogeneity of individuals.

Related to experience, the previous unemployment period may suggest a lack of business skills. However, it also may indicate an incentive for self-employment to break up with unemployment. Related to the first idea, and according to Jovanovic's (1982) dynamic selection theory, an individual accumulates their abilities over time. Thus, the previous unemployment is negatively influencing the choice for self-employment due to lack of business skills. Accordingly, individuals with previous employment experiences learn and accumulate confidence from it (Shane, 2003), and use it to enter into self-employment (Georgellis et al., 2005a; Poschke, 2013). This previous experience may be either self-employment experience (Taylor 2001; Poschke, 2013; Eliasson and Westlund, 2013) or paid job experience (Lin et al., 2000). We remark that there is a large consensus in literature about the positive influence of diversified previous experiences on self-employment entry (Lazear, 2005), but no study has taken in consideration the influence of previous unemployment experience on self-employment and wage employment choice. Thus, in the empirical part, this paper analyzes the influence of unemployment duration on self-employment categories and wage employment choices.

2.3.4. Personality characteristics

In literature, among several personality characteristics, generally two important characteristics are influencing the probability of entry into self-employment, namely the level of personal confidence and risk aversion. The level of confidence is related to the degree of estimation of the individual to its abilities relative to others (Moore and Kim, 2003; Camerer and Lovallo 1999) and its perception relative to outcomes from self-employment or wage employment (Forlani and Mullins, 2000). This individual self-estimation and perception are a determinant mediator connecting preference to behavior for self-employment or wage employment (Tversky and Kahneman, 1991, 1992). However, this connection may be distorted by overconfidence (Koellinger et al., 2007).

Some authors use overconfidence as determinants for self-employment entry (e.g. Camerer and Lovallo, 1999). Nevertheless, since market conditions and market capacity are unknown in the real life (Koellinger et al., 2007) especially for individuals with lack of entrepreneurial capacities, overconfidence is difficult to measure related to self-employment entry. In addition, some authors show that people's doubts about their skills when they face

unfamiliar and challenging situations (Hoelzl and Rustichini, 2005; Kruger and Burrus, 2004) and others show that individuals with less self-confidence are more likely to escape self-employed (Koellinger et al., 2007). Related to this inquiry, this paper uses lack of confidence (Having doubts) and its influence on self-employment/wage-employment entry.

The second characteristic related to individual personality is the tolerance of risk. Knowing that choosing self-employment is a risky decision, the individuals' acceptance to take risks is determinant (Wu and Knott, 2006). Peoples with higher levels of risk aversion are less likely to be self-employed (Kihlstrom and Laffont, 1979). However some authors suggest an unclear relationship between self-employment and risk aversion (Cramer et al., 2002).

2.3.5. Informational and financial resources

In the field of information, individuals who tend to enter self-employment are not isolated but integrated into an informational system. The exchange of information with family members, friends and personal contacts is a mechanism that facilitates the transmission of ideas, innovations and knowledge spillover (Combes et al. 2012; Combes and Overman, 2004; Storper and Venables, 2004) and therefore facilitating self-employment entry.

Individuals in the process of self-employment often lack of management capabilities especially in social entrepreneurship context (Conte and Jones, 1991). Thus, the suspected self-employed are in high dependency on the interactions with their entrepreneur partners (Perotin 2006) and the knowledge spillover that comes from it.

The stock of information is a determinant mechanism that may induce self-employment entry. However, this area of research is still in huge lack of theoretical and empirical studies. This paper reduces this gap and highlights the relationship between getting information and self-employment entry.

Related to financial resources and in order to start new business, people needs to access to an initial investment. Thus, the literature suggests a positive relationship between accessing to financial resources and entry to self-employment (Evans and Leighton, 1989; Zissimopoulos et al., 2009). However, in some cases it is demonstrated that the need for initial capital doesn't necessary means having constrained by financial resources. For instance, having great sophistication toward financial resources and lower risk aversion helps individuals to be wealthier and more open to self-employment (Nykqvist, 2008). Thus, this financial windfall (e.g. gifts, inheritance, life-insurance) can be seen as factors influencing

self-employment entry (Holtz-Eakin et al. 1994; Disney and Gathergood, 2009 ; Fairlie and Krashinsky, 2012). Related to these arguments, self-employment entry seems to be in positive relationship with households' wealth conditions and constraints. Elsewhere, some authors find that this positive relationship is very weak (Hurst and Lusardi; 2004). However, the heterogeneity of individual groups is also a determinant factor in this case. Therefore, separate case studies analysis is needed. For example, regarding age, different countries, and self-employment categories (e.g. by necessity or by motivation).

2.3.6. Health condition

The weak health is an important determinant that can deter entry into self-employment. However, the scarcity of literature on this field is remarkable. Until the 1990s, some authors included this dimension in their models (Borjas, 1986) by using a dummy variable with value 0 if health is not limiting the work.

By referring to empirical studies, there is generally two opposite results of two categories of authors. The first claims a negative relationship between weak health and self-employment entry (e.g. Cahill et al., 2013; Parker and Rougier, 2007) and the second point in the opposite relationship (Jones and Latreille, 2011 ; Pagán, 2009). For the first group, weak health increases the probability to shift into self-employment. One of reasons to explain this fact is the weakness of social security system for wage-employment. On the contrary, the second group suggests that shifting to good health influence positively the probability of self-employment entry. This can be explained by the fact that self-employment needs more efforts, risk aversion and management of high level of stress; therefore, it needs very good health.

These contrary results attest about the heterogeneity of individuals included on the studies (Simoes, Crespo and Moreira, 2016). The results can differ either related to age, or to the specific health condition being analyzed (General health problems or specific disabilities issues). The heterogeneity of the results is generally related to the specificities of the survey used in the study (e.g. Pagán, 2009 for specific disability). Thus, the empirical part of this study highlight the case of Morocco using dummy variable with value 1 for general health problem.

3. Empirical analysis

3.1. Data, empirical model and methodology

The model presented in the following section is based on a binary logistic representation of the employment status choice. The binary logistic regression is appropriate when the dependant variable is a dummy variable and the data includes categorical variables. In this sense, it allows the employment status choice and assumes that there are four employment options available to each individual: Co-ops self-employment, business self-employment, employer self-employment and paid job employment. Consequently, four probit models representing this various employment options are estimated as described in equation 1. The individual decision towards self-employment Y_i is defined to be explained variable and the probability related respectively denoted π_i and $1 - \pi_i$ respectively. For instance, if the individual is willing to be independent self-employed, than for yes $Y_i = 1$ we have $X = X_i$; Otherwise $Y_i = 0$. The same definition is applicable for co-operatives self-employment, employer self-employment and paid job employment. Thus the individual choice is binary, including only tow values that for convenience coded as one or zero.

$$Y_i = \begin{cases} 1, & \text{and if the } i - \text{th indivdiual is chosing } j - \text{category of employment} \\ 0, & \text{and Otherwise} \end{cases}$$

Let π_i = Probability ($Y_i = 1 \mid X = X_i$)

And Odds_i = $\frac{\pi_i}{1 - \pi_i}$ the ratio of favorable to unfavorable cases

Then we can write the linear probability model

$$Y_i = \ln\left(\frac{\pi_i}{1 - \pi_i}\right) = \beta_0 + \sum_{j=1}^n \beta_{ij} x_{ij} + \varepsilon_i \quad (1)$$

Wherein, π_i is the probability when dependent variable is equal to 1; β_0 is a constant; x_{ij} is the individual determinants described in the literature review and table 1, influencing the individual choice; β_{ij} is the regression coefficients of individual determinants; ε_i is random errors under normal distribution or the unobservable factors that influence the employment choice. Y_i is a Bernoulli distribution with parameter π_i with expected value and variance that can be written as

$$E(Y_i) = \mu_i = \pi_i \quad (2)$$

$$\text{Var}(Y_i) = \sigma^2_i = \pi_i(1 - \pi_i) \quad (3)$$

According to Stenholm et al. (2013), in order to analyze the entrepreneurial activities there is generally two common approaches. The first approach based on self-reports of randomly selected individuals (survey) and the second relies on the data obtained from national business registries. This study relies to the first approach. The data set analyzed is derived from the General Household Survey of the Office of the High Commissioner for Planning for 2014 (HCP). HCP is the government agency in charge of producing statistics that serve policymakers and the research community. The data set includes 240024 individuals that was selected for the simple and successfully interviewed. It contains socio-demographic components, as well as all necessary employment characteristics included in this study.

The variables related to the individual determinants that serve this study was selected from the survey and used in the analysis as described in table 1. For necessity of analysis the dependant variable that describe the “employment status” was transformed to dummy variables representing the categories needed for the analysis. Comparably, the variable “source of employment” was transformed to a construct of dummy variables that describes the “information and financial resources” dummy variables. Also, the variable “Personnel desire for employment category” was transformed to a construct of dummy variables representing respectively personnel doubts/lack of high-confidence, Risk aversion and health condition.

In order for our model to be valid, it has to satisfy the assumptions of logistic regression. The First category of the assumptions is related to data structure (e.g. independence of observations, absence of extraneous variables) and it was previously verified and assumed from the HCP institution conducting the general household survey. The second assumption is related to multicollinearity problem that suppose a linear correlation between two or more explanatory variables. This problem does not affect the predictive power of the model, but does make the coefficients unstable (Belsley et al., 1980, Midi et al., 2010). For analysis conditions related to multicollinearity diagnostic, a transformation of nominal explanatory variables into dummy variables is needed (Midi et al., 2010).

There is no specific test of multicollinearity in the logistic regression models. Thus, to make the diagnostic, the common approach adopted is to use the statistics of linear regression models (Midi et al., 2010). This allows the use of dependant variable from logistic regression analysis or any other variable that is not included in the explanatory variables. The general

rule of thumb assumes that the multicollinearity is a serious problem when the correlation coefficient between two regressors is higher than 0.8 or 0.9 (Kennedy, 1985; Midi et al., 2010), and when the tolerance - defined in Eq.4- is less than 0.1 (Myers, 1990) or below 0.2 (Menard, 2002) and when the variance inflation factor - defined in Eq.5 - (VIF) exceeds 10.

$$T = 1 - R^2 \quad (4)$$

$$VIF = \frac{1}{T} = \frac{1}{1-R^2} \quad (5)$$

$$S_{\beta_{X_k}} = \sqrt{VIF_k} \sqrt{\frac{1 - R^2_{YU}}{(N-k-1)} \frac{S_Y}{S_{X_k}}} \quad (6)$$

Wherein, R is the coefficient related to an explanatory variable X_k and its relationship with the remaining independent variables and $S_{\beta_{X_k}}$ is the standard error of the regressor related to the explanatory variable X_k .

The correlation matrix presented in table 2 is used to highlight the first rule of thumb of multicollinearity related to the correlation coefficients. Along the table and for all the independent variables of concern, we remark that all of the coefficients are less than 0.8. This suggests the absence of multicollinearity. However, examining the correlation matrix is not sufficient; it is possible to have more than two variables jointly in high interdependence. Thus, the second option with the use of tolerance and VIF is a better additional diagnostic. The results are presented in table 3 below. It shows that the tolerance factors for all variables are not less than 0.1. In addition, the variance inflation factor does not exceed 10 for all the variables. By conclusion, the results suggest absence of multicollinearity.

Table 1

Values and signs for the individual determinants variables

Individual determinants	Variables name	Symbol	Values
Basic individual determinants	Gender	X1	0 = “Female” 1 = “Male”
	Environment	X2	0 = “Rural” 1 = “Urban”
	Marital status	X3	1 = “Single” 2 = “Married” 3 = “Widower” 4 = “Divorced”
	Age		
	age0	X4	0 = “<15 years old”
	age1	X5	1 = “15 – 24 years old”
	age2	X6	2 = “25 – 34 years old”
	age3	X7	3 = “35 – 44 years old”
	age4	X8	4 = “45 – 59 years old”
	age5	X9	5 = “≥60 years old”
Family relationships	Head of household	X10	1 = “Head of household”
	Spouse	X11	2 = “Spouse”
	Relatives	X12	3 = “Relatives”
	Unrelated	X13	4 = “Unrelated”
Human capital	Education		
	Without grade	X14	0 = “Without GL”
	Basic Ed	X15	1 = “Basic Ed”
	Secondary Ed	X16	2 = “Secondary Ed”
	High Ed	X17	3 = “High Ed”
	Other level	X18	4 = “Other L”
Personality characteristics	Experience	X19	Numerical variable
	Lack of confidence	X20	0 = “No” 1 = “Yes”
	Risk aversion	X21	0 = “No” 1 = “Yes”
Information and financial resources	Family and friends	X22	0 = “No” 1 = “Yes”
	Personal contact	X23	0 = “No” 1 = “Yes”
	Financial resources	X24	0 = “No” 1 = “Yes”
Health condition	Health problem	X25	0 = “No” 1 = “Yes”

The last assumption is related to the goodness of fit of the model. The common test adopted in this area of analysis is Anova test and Hosmer-Lemeshow test (Hosmer and Lemeshow, 2000). However, the Hosmer-lemeshow is sensitive to simple size and is more adequate in the case of small simple size (Kramer and Zimmerman, 2007). In the case of this

study, the sample size of 240024 individuals is extremely large. Thus, the Hosmer-Lemshow test is not a good measure to decide about the goodness of fit. The focus is given to Anova test, and it confirms the goodness of fit of the model included in this study.

Table 2
Coefficient correlations

X9	X25	X13	X20	X24	X21	X22	X23	X2	X10	X17	X6	X16	X7	X19	X1	X5	X14	X8	X3	X
1																				
0	1																			
0,055	0	1																		
0,005	0,003	-0,002	1																	
-0,016	0,001	0,002	0,002	1																
-0,012	0,005	-0,003	0,009	0,005	1															
-0,048	0,005	0,005	0,006	0,044	0,021	1														
-0,049	0,006	0,001	0,006	0,042	0,021	0,1	1													
-0,069	-0,004	-0,008	0,014	-0,004	0,002	-0,026	-0,038	1												
0,218	0,01	0,058	0,018	-0,007	0,024	-0,013	-0,016	-0,032	1											
-0,139	0,005	-0,015	0,004	-0,054	0,018	0,028	0,023	-0,132	0,033	1										
0,494	-0,017	-0,016	-0,028	-0,041	-0,072	-0,1	-0,11	-0,01	0,045	-0,241	1									
-0,158	0,004	0,01	0,005	-0,017	0,011	0,01	0,001	-0,127	0,021	0,616	-0,252	1								
0,582	-0,015	0,021	-0,018	-0,017	-0,057	-0,077	-0,076	-0,033	0,097	-0,194	0,552	-0,207	1							
-0,028	0,001	0,003	0,002	-0,123	0,003	-0,269	-0,238	-0,009	-0,015	-0,035	-0,038	-0,013	-0,039	1						
0,094	-0,011	0,019	-0,022	-0,007	-0,049	-0,058	-0,067	0,019	0,524	-0,027	0,085	-0,04	0,094	-0,003	1					
0,319	-0,011	-0,028	-0,019	-0,008	-0,041	-0,096	-0,078	0,05	0,006	-0,296	0,445	-0,377	0,395	0,011	0,07	1				
-0,232	0	-0,002	-0,004	-0,002	0,004	0,007	0,005	0,069	-0,004	0,648	-0,193	0,718	-0,182	0,002	0,025	-0,192	1			
0,654	-0,011	0,044	-0,006	-0,015	-0,034	-0,069	-0,069	-0,06	0,145	-0,181	0,567	-0,194	0,651	-0,031	0,088	0,379	-0,203	1		
-0,167	0,001	0,095	0	0,017	0,007	0,049	0,047	0,09	-0,276	0,018	-0,272	0,017	-0,273	0,025	-0,197	-0,115	0,001	-0,243	1	
0,439	0,004	0,154	0,011	-0,015	0,004	-0,017	-0,024	0,065	0,303	0,004	0,155	-0,01	0,307	-0,025	0,124	0,012	0,01	0,415	0,456	
-0,103	0,001	0,004	0	0,001	-0,004	-0,007	-0,008	-0,034	0,029	0,677	-0,177	0,758	-0,143	0	-0,025	-0,233	0,851	-0,12	-0,012	

Table 3
Collinearity Statistics

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3,206	,053		60,817	,000		
	X1	-,297	,020	-,007	-14,684	,000	,690	1,449
	X2	-,044	,018	-,001	-2,432	,015	,880	1,137
	X3	-,008	,031	,000	-,261	,794	,293	3,415
	X10	-,733	,033	-,013	-22,362	,000	,449	2,227
	X12	-,973	,035	-,023	-27,630	,000	,234	4,276
	X13	-,098	,058	-,001	-1,683	,092	,972	1,029
	X14	5,680	,040	,128	141,389	,000	,190	5,259
	X15	6,516	,038	,152	169,884	,000	,196	5,095
	X16	5,379	,048	,076	111,612	,000	,340	2,938
	X17	6,134	,054	,066	114,145	,000	,470	2,130
	X19	,002	,001	,001	3,144	,002	,854	1,172
	X20	-,379	,222	-,001	-1,710	,087	,997	1,003
	X21	-,356	,106	-,001	-3,345	,001	,986	1,014
	X22	-,059	,080	,000	-,747	,455	,903	1,107
	X23	,034	,083	,000	,413	,680	,916	1,092
	X23	,423	,222	,001	1,905	,057	,973	1,028
	X25	,031	,324	,000	,095	,924	,999	1,001
	X5	11,096	,029	,197	383,305	,000	,595	1,680
	X6	21,066	,033	,344	635,928	,000	,536	1,864
	X7	30,936	,038	,489	824,886	,000	,447	2,237
	X8	43,090	,038	,757	1122,615	,000	,345	2,901
	X9	61,098	,041	,913	1496,121	,000	,421	2,375

3.2. Empirical results

The results were based on the use of logit model estimated under equation (1). Table 4 reports the coefficient estimated with standard error in parentheses.

The primary results concern the basic individual determinants. As shown in table 4, for all the categories of employment, males are more likely to choose self-employment and wag-employment than females. This result is generally in accordance with literature summarized in literature review. Furthermore, related to the environment, choosing co-operatives and independent-SE is more appropriate in rural places than urban places. This result supports the hypothesis of push factor theory and barrier to entry of competitiveness summarized in literature review. However, for employer-SE and wag-E, rural areas are not the best choice.

Regarding marital status, being married is positively influencing co-operatives entry and also employer-SE entry. This is in accordance with mutual support hypothesis and the neoclassical theory of specialization (domestic work specialization for women) highlighted in literature review. However, it's negatively influencing wag-E entry and demonstrates no significant influence for independent-SE. Furthermore, widower state positively influence co-ops entry, negatively influence wag-E entry and with no significant influence on independent-SE and employer-SE. Related to divorced status, it demonstrates a positive influence on employer-SE and wag-employment but no significant influence on co-ops-SE and independent-SE.

Turning the attention to age, for individuals of 15 to 25 years old, the preference is for wag-employment rather than self-employment. Furthermore, all of the other age groups are in positive and significant relationship with all employment categories. This positive relationship is in accordance with the discussion in literature that relates advancement in age to the accumulation of human, social, and financial resources. Thus, for 15 to 25 years old, the negative preference for self-employment can also be explained by lack in these resources.

In the case of family relationship determinants, being a head of household is negatively influencing co-ops and wag-employment entry, positively influencing independent-SE entry and with no significant influence for employer-SE. Regarding spouse, we find a significantly negative influence for co-ops and wag-E and no significant relationship related to independent-SE and employer-SE. Finally, having a relative relationship with the head of household is with the same results as being a head of household. Therefore, being a head of household or with relative relationship with the head of household is supporting the hypothesis of financial evolvement necessity in the framework of independent-SE. However, for co-ops entry, the result is in accordance with the literature related to family obligations and security. But, the negative relationship toward wag-employment is ambiguous related to literature discussion. In addition, differently to the head of household, being spouse is totally in accordance with the hypothesis of family and security obligations discussed in literature. For the human capital factors, the results highlighted the ambiguous relationship suggested in literature by analyzing the relationship between education and the different categories of employment. Thus, the population with basic education and secondary education has a significantly positive influence on co-ops, employer-SE and wag-E, but significantly negative influence on independent-SE. However, regarding high education, the only difference is related to co-operatives. The population of high education has no significant influence on co-ops entry.

Likewise, among the other human capital determinant is the unemployment experience. The result is consistent with dynamic selection theory that supposes a positive influence of individual dynamic abilities on self-employment entry. Thus, the result demonstrates that unemployment experience that is synonym to lack in dynamic abilities has a negative influence on co-ops, independent-SE and wag-employment.

Related to personality characteristics, the result concerning confidence level does not support the hypothesis summarized in the literature review. Having doubts is demonstrated as being with no negative influence on the preference for co-ops, independent-SE and wag-employment. Additionally, in accordance with literature, less tolerance of risk presents a negative effect on self-employment entries. However, it has no negative effect on choosing wag-employment.

Regarding resources information, getting information from family and friends related to employment opportunities has significantly positive effect only on wag-E. Thus, the hypothesis of knowledge and ideas transmissions is not confirmed. Likewise, personal contact shows a positive and significant influence only on wag-E.

Concerning financial resources, the result shows no significant influence on self-employment and wag-E entries. Thus the hypothesis suggested by literature is not confirmed in this study. Finally, health condition and the tow opposite points of view discussed in literature are highlighted for the case study included in this paper. The weak health is not determinant for self-employment entry. But, it is positively and significantly determinant for wag-E.

Table 4
Estimation results

	Co-ops-SE	ID-SE	EP-SE	Wag-E
Gender	1,815*** (,103)	1,791*** (,031)	1,725*** (,123)	1,280*** (,020)
Environment	,128** (,056)	1,029*** (,018)	-,935*** (,068)	-,595*** (,017)
Married	,211** (,084)	-,002 (,032)	,597*** (,105)	-,329*** (,026)
Widower	,399** (,201)	-,075 (,054)	-,287 (,265)	-,442*** (,053)
Divorced	,252 (,208)	,078 (,070)	,907*** (,181)	,383*** (,046)
Age1 (15 – 24)	-,745*** (,158)	-1,093*** (,047)	-1,801*** (,206)	,913*** (,042)
Age2 (25 – 34)	1,067*** (,118)	,289*** (,031)	,274** (,097)	2,544*** (,037)
Age3 (35 – 44)	1,282*** (,109)	,667*** (,027)	,687*** (,080)	2,550*** (,036)
Age4 (45 – 59)	1,061*** (,105)	,702*** (,024)	,612*** (,074)	2,299*** (,034)
Head of household	-1,044** (,330)	1,303*** (,242)	,293 (,511)	-,877*** (,103)
Spouse	-1,894*** (,362)	,233 (,244)	-,759 (,533)	-2,183*** (,105)
Relatives	-,670** (,326)	,424* (,242)	-,264 (,510)	-1,587*** (,101)
Basic Ed	,271*** (,064)	-,157*** (,020)	,522*** (,065)	,446*** (,018)
Secondary Ed	,189** (,092)	-,615*** (,033)	,755*** (,080)	,550*** (,024)
High Ed	-,091 (,116)	-1,294*** (,048)	1,173*** (,079)	1,164*** (,027)
Other level	,353 (,341)	,241** (,088)	,836** (,288)	-,341*** (,097)
Experience	-,060** (,018)	-,004** (,001)	,000 (,002)	-,023*** (,001)
Doubts	,835** (,260)	,625*** (,126)	-,097 (,456)	,198* (,119)
Risk aversion	-,480** (,222)	-,561*** (,075)	-,721** (,272)	1,833*** (,064)
Family and friends info	-,365 (,279)	,022 (,072)	-,359 (,224)	1,570*** (,049)
Personal contact	-,843** (,333)	-,917*** (,094)	-2,885*** (,710)	1,855*** (,051)
Financial resources	-,121 (1,027)	-,100 (,337)	-16,446 (1998,5)	,139 (142)

Note: *Significant at the 0.01 level. **Significant at the 0.05 level. *Significant at 0.10 level

4. Main conclusion and public policies implication

The purpose of this study was to investigate the individual determinants and its influence on self-employment entry in the framework of social and conventional entrepreneurship. An additional analyzed for the probability of choosing wage employment was addressed. The motivation behind this study is the importance of the results for the public policies that promote entrepreneurship and social inclusion. Accordingly, the results could be valuable as optimal resource for government programs. The good understanding of individual drivers toward self-employment is a key factor to shape policy efficiency and policy adjustment according to the heterogeneity of individuals and their different choices toward self-employment status in comparison to wage employment. Our results are giving insights about the role of economic incentive and self-selection and go on to give more clarity to be used for public policies interventions on self-employment choice.

This paper differs from the previous research. To our knowledge this is the only economic study on self-employment entry with different categories of social and conventional entrepreneurship. It consists of binary logistic representation of the employment status choice. It allows the employment status preferences and assumes that there are four employment options available to each individual: Co-ops self-employment, independent self-employment, employer self-employment and paid job employment.

For co-operatives, policy intervention can gain positive points when the focus is devoted to married or widower males in rural area above 24 years old. In addition, based on the results, risk aversion, basic education, and secondary education are important factors for co-ops promotion. Thus, public policy may be positively in accordance with self-employment ecosystem performance through start-up support and entrepreneurial skills training programs. For independent self-employment, related to basic individual determinant and policies implication, the remark is the same as for co-ops except for the widowed status that is with no influence on the case of independent-SE entry. In addition, the situation of being head of household or in relative relationship with the head of household is more appropriate for independent-SE entry and public policy programs. Additionally, there is a need of target-policy intervention to reduce the constraints facing human capital and personality characteristics partially the educational and risk aversion determinants.

Turning the attention to the employer-SE entry, contrarily to co-ops and independent-SE, urban area is more attractive and unmarried individuals are more likely to be employers. In addition, differently to co-ops and independent-SE, all the educational levels are important

determinants. However, similarly to co-ops and independent-SE, the population above 24 years old is the target.

The comparison to wag-employment is valuable for public policies programs toward SE entry. For instance the attractiveness of wag-E to individuals with risk aversion confirms the importance of risk tolerance for self-employment entry, and thus, to be taken in consideration in the public policy programs toward social and conventional entrepreneurship. Also, the importance of getting information from family and personal contacts for wag-E entry, which is with no positive influence on self-employment categories, sheds insight about the lack of entrepreneurial culture in the Moroccan context. Accordingly, the promotion of entrepreneurial culture should be taken in high consideration. In the same vein, wag-E is an escape for weak health condition individuals. This can be taken in consideration in the public policies while targeting self-employment entry and entrepreneurial dynamics.

Finally, for all the categories the efforts toward gender discrimination and financial support should be enforced.

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