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Mode of Entry into Hybrid Entrepreneurship: New Venture Start-Up versus Business Takeover

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ABSTRACT

Mode of Entry into Hybrid Entrepreneurship: New Venture Start-Up versus Business Takeover*

Many entrepreneurs start their ventures while retaining jobs in wage employment; this phenomenon is called hybrid entrepreneurship. Little is known about the entry modes (new venture start-up vs. business takeover) of hybrid entrepreneurs. Our study aims to close this gap by investigating the path to hybrid entrepreneurship. Using a large sample of French hybrid entrepreneurs, we show that educational attainment and management experience are associated with new venture start-up, whereas being female, having worker experience, and having received social benefits are linked to business takeover. With these results, our study contributes to research on hybrid entrepreneurship and entrepreneurship entry modes. Moreover, it informs policy makers about the nature of hybrid entrepreneurship and contributes to the design of effective policies to promote business takeover, which is of high interest, given the growing number of businesses seeking outside successors.

JEL Classification: L26

Keywords: hybrid entrepreneurship, entrepreneurship entry mode, business takeover, new venture

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Mode of entry into hybrid entrepreneurship: new venture start-up versus business takeover

Introduction

A substantial number of entrepreneurs do not start their ventures with a full-time commitment; instead, they retain jobs in wage employment during the ventures' initial phase. In 2015, 16% of self-employed individuals in France reported concurrent employment in a wage job (23% in Germany and 35% in the Netherlands).ⁱ This type of entrepreneurship is called hybrid entrepreneurship (Folta *et al.*, 2010) and has recently received growing interest in the entrepreneurship literature (Wennberg *et al.*, 2006; Folta *et al.*, 2010; Petrova, 2012; Raffiee and Feng, 2014; Block and Landgraf, 2016; Schulz *et al.*, 2016). To date, however, little is known about hybrid entrepreneurs' entry mode, which is surprising, given that the entry mode decision and the path to entrepreneurship are well-investigated topics within entrepreneurship research (Parker and van Praag, 2012; Bastié *et al.*, 2013; Block *et al.*, 2013b; Rocha *et al.*, 2015; Kay and Schlömer-Laufen, 2016). In this exploratory study, we investigate the determinants of hybrid entrepreneurs' entry mode decisions, distinguishing between business takeover and new venture start-up. Specifically, we examine how an individual's work experience, educational attainment, socio-demographic status, motivation and received support – as well as firm characteristics – affect the hybrid entrepreneur's entrepreneurship entry mode.

Our empirical study is based on the entry mode decisions of 9,032 French hybrid entrepreneurs who either started a new firm (new venture start-up) or took over an existing firm (business takeover). We find that hybrid entrepreneurs' entry mode is influenced by an individual's human capital, among other factors. Educational attainment and management experience are linked to new venture start-up, whereas having worker experience is associated with business takeover.

Moreover, business takeover is preferred by female entrepreneurs and by those who have received social benefits.

Our study connects the literature on hybrid entrepreneurship to the literature on entrepreneurship entry modes. Previous studies on hybrid entrepreneurship focus on whether an individual enters entrepreneurship via a hybrid status or a full-time commitment status (Folta *et al.*, 2010; Raffiee and Feng, 2014; Schulz *et al.*, 2016). We go one step further and investigate hybrid entrepreneurs' entrepreneurship entry mode, distinguishing between business takeover and new venture start-up. Our study thus helps to understand hybrid entrepreneurs' behaviour with respect to entry mode decisions.

Our study also has important policy implications. Policy-makers who design programs to promote business transfers can use our results to tailor their programs towards specific sub-groups of hybrid entrepreneurs with a high interest in business takeovers. To date, most existing policy initiatives have ignored hybrid entrepreneurship – an important oversight, given the strong increase in hybrid entrepreneurship in recent years.

Literature review

Hybrid entrepreneurship

Most entrepreneurship research treats the entrepreneurial choice as a dichotomous decision: individuals either start a new venture or seek a wage job (Hamilton, 2000; Douglas and Shepherd, 2002). However, recent research has shown that entrepreneurship often does not begin with full-time commitment (van Gelderen *et al.*, 2006; Wennberg *et al.*, 2006; Folta *et al.*, 2010; Petrova, 2012; Raffiee and Feng, 2014; Schulz *et al.*, 2016). Some entrepreneurs spend little of their time on their ventures, using the rest of their time otherwise. Depending on their use of time on

entrepreneurship and their occupational status, they are called second job entrepreneurs (Gruenert, 1999), moonlighters (Kimmel and Conway, 2001; Renna, 2006), side activity owners (Markantoni *et al.*, 2013), retire entrepreneurs (Tornikoski *et al.*, 2015), and part-time entrepreneurs (Petrova, 2012; Block and Landgraf, 2016). The term “hybrid entrepreneur” stresses the dual nature of the entrepreneur’s work and occupational status: hybrid entrepreneurs are individuals who start or operate their own ventures while concurrently keeping wage jobs in paid employment (Folta *et al.*, 2010; Raffiee and Feng, 2014; Schulz *et al.*, 2016; Thorgren *et al.*, 2016).

Hybrid entrepreneurship reduces and buffers the personal risks and uncertainties that accompany starting or taking over a new venture on a full-time basis (Folta *et al.*, 2010; Raffiee and Feng, 2014). It is also a way to finance the entrepreneur’s living costs during the early stages of the venture, when earnings and sales are typically low and highly volatile (Lévesque and MacCrimmon, 1997). The variance of earnings in entrepreneurship is larger than the variance of earnings in wage employment (Rees and Shah, 1986; Åstebro and Chen, 2014). Hybrid entrepreneurship can also be regarded as a test period for individuals who want to try out new ideas or implement their own philosophy in a new business (Wennberg *et al.*, 2006). Should this attempt fail, they can still return to full-time wage employment. However, there are negative aspects of hybrid entrepreneurship: hybrid entrepreneurs may experience and feel more stress than full-time entrepreneurs or full-time paid employees because they must allocate their limited time and effort to multiple activities, such as paid work, entrepreneurship, and leisure activity (Thorgren *et al.*, 2014). Furthermore, employers may not approve of their employees working concurrently on entrepreneurial activities, which distract these employees’ attention from their jobs in paid employment, negatively affecting their work performance. When entrepreneurship activity occurs in the same sector or market, it might even lead to the emergence of a new competitor or future rival.

Raffiee and Feng (2014) noted that hybrid entrepreneurship can be seen as a learning process through which entrepreneurs can increase their business survival chances in later spells of full-time entrepreneurship. Their study shows that entrepreneurs who switch from part- to full-time entrepreneurship have higher chances of survival than entrepreneurs who transit directly from wage employment into full-time entrepreneurship. Whereas full-time entrepreneurship requires more attention, effort, care, and responsibility, hybrid entrepreneurship functions as a buffer for precarious entrepreneurs, providing them with opportunities to explore their business ideas before entering full-time entrepreneurship (Wennberg *et al.*, 2006).

Despite the importance of hybrid entrepreneurship for entrepreneurship practice, a limited number of empirical studies to date have investigated the determinants of entrepreneurs starting their venture on a hybrid or full-time basis. The following findings have been established: first, because entrepreneurship is a risky career choice, risk-averse individuals are more likely to enter into entrepreneurship via a hybrid status (Raffiee and Feng, 2014; Yuanita and Indudewi, 2015). Moreover, individuals who lack self-confidence in starting a new venture are more likely than other individuals to start a new business while retaining their paid work (Raffiee and Feng, 2014). Second, a transition from paid employment into full-time entrepreneurship implies a loss of stable income, pensions and other firm-related benefits; thus, entrepreneurs weigh their opportunity (educational attainment) and switching costs (industry tenure and employer size) when making the entrepreneurship entry decision. Folta *et al.* (2010) found that hybrid entrepreneurship is more likely among entrepreneurs who have more education, longer industry tenure, and work experience in larger firms. Third, the decision on hybrid or full-time entrepreneurship also depends on an individual's gender. Petrova (2012) showed that females are more likely than males to choose hybrid over full-time entrepreneurship.

New venture start-up versus business takeover

Entrepreneurship entry modes can be classified not only into hybrid or full-time entrepreneurship but also into the modes of starting a new venture (new venture start-up) or taking over an established firm (business takeover; Cooper and Dunkelberg, 1986). Unlike new venture start-ups, which are built from scratch, business takeovers have the advantage of customers' previous knowledge of the venture and existing access to important resources, such as logistics, employees, and distribution channels. Accordingly, business takeovers are considered less risky and uncertain than new venture start-ups (Block *et al.*, 2013b; Parker and van Praag, 2013). However, new venture start-ups allow for more flexibility in the sense that entrepreneurs who start a new venture from scratch can shape the venture however they choose (Block *et al.*, 2013b). Thus, new venture start-up is sometimes considered a more entrepreneurial form of entrepreneurship (Cooper and Dunkelberg, 1986).

Prior research on full-time entrepreneurs' entry mode has analysed the determinants of new venture start-up vs. business takeover, e.g., human capital (Parker and van Praag, 2012), social and financial capital (Bastié *et al.*, 2013), country-level characteristics (Block *et al.*, 2013b), and gender (Kay and Schlömer-Laufen, 2016). Parker and van Praag (2012) showed that individuals with higher educational attainment are more likely to choose new venture start-up, whereas individuals with management experience prefer business takeover as an entry mode. Bastié *et al.* (2013) found that same-sector experience and entrepreneurial and professional networks lead to new venture start-up. Block *et al.* (2013b) investigated the impact of individual-level and country-level characteristics on entrepreneurs' preferred mode of entry and found that an individual's risk-taking propensity, inventiveness, and educational attainment are positively associated with a preference for new venture start-up, whereas the entrepreneur's age is positively linked to business takeover.

They also found significant cross-country differences in entry mode preferences and linked these differences to the country's innovation status, administrative process of entrepreneurship, and risk tolerance. Rocha *et al.* (2015) studied the entry and exit decisions of a sample of Portuguese nascent entrepreneurs and found that an individual's educational attainment, gender, and age influence his or her likelihood of new venture start-up, business takeover and employee buyout. Kay and Schlömer-Laufen (2016) studied the role of human capital in the relationship between gender and entrepreneurship entry mode and showed that women are less likely than men to choose business takeover over new venture start-up. They attributed this gender effect to gender-related differences in entrepreneurs' resources and capabilities, such as specific human capital qualifications, time availability, and possession of a business idea, and concluded that to motivate and persuade women to choose business takeover as a preferred and actual mode of entry into entrepreneurship, more fundamental societal changes regarding the labour division between men and women and vocational choice are needed.

While existing research has focused on full-time entrepreneurs' business takeover versus new venture start decision, our study focuses on hybrid entrepreneurs' entry mode decision. To date, to the best of our knowledge, no existing study examines the entry mode of this growing group of entrepreneurs.

Method

Sample

We used a dataset named SINE (*Système d'Information sur les Nouvelles Entreprises*), which comprises information about entrepreneurs and ventures that were created or taken over in France in the first half of 2002. The data were collected through a survey by the French institute

INSEE (*Institut National de la Statistique et des Etudes Economiques*) in September 2002. INSEE is a government agency in charge of collecting, administering and publishing statistics in various domains, such as the economy, businesses, new firms, labour and employment, demography, etc. The scope of the survey covers the manufacturing, construction, trade and repair sectors, as well as other service sectors. Since the survey was official and mandatory for all new venture start-ups and business takeovers in these sectors in France, the response rate is very high (92,966 out of 100,731 firms contacted), ensuring that the dataset is a good representation of the population of new venture start-ups and business takeovers in France.

To identify hybrid entrepreneurs, we used question 14 of the SINE survey: “If you currently work with a main title in another firm and received payment, your status is: 1) salaried worker; 2) non-salaried worker; 3) no other activity or secondary profit-making activity.”ⁱⁱ In accordance with previous studies’ definition of hybrid entrepreneurship (Block and Landgraf, 2016; Schulz *et al.*, 2016), we define hybrid entrepreneurs as individuals who are running a new business while simultaneously working as salaried employees. Hence, respondents who chose option 1 – 12,434 individuals – are identified as hybrid entrepreneurs.

We applied the following steps to find the final sample. First, we excluded family takeovers (N=68) and management buyouts (N=58) from our estimation sample because the former is not attainable for non-family successors and the latter is not an option for outside employees (Parker and van Praag, 2012; Bastié *et al.*, 2013). Second, we eliminated observations with missing data. These data reduction steps left us with a sample of 9,032 entrepreneurs, of which 500 (5.5%) chose business takeover and 8,532 (94.5%) chose new venture start-up. The above percentage of hybrid entrepreneurs who chose business takeover is lower than the percentages reported by prior studies, which were based mostly on full-time entrepreneurs: in Parker and van Praag (2012)’s sample, 7.8%

chose business takeover; the corresponding figures for Bastié *et al.* (2013) and Block *et al.* (2013b) are 12.3% and 21.9%, respectively.

Variables

Dependent variable: Our dependent variable, *business takeover*, equals one if the hybrid entrepreneur chose business takeover as his or her entry mode and zero if the entrepreneur chose new venture start-up.ⁱⁱⁱ

We examine the effect of various variables on hybrid entrepreneurs' entry mode:

Hybrid entrepreneur's work experience: We consider two types of work experience attained by the individual before becoming a hybrid entrepreneur. The first refers to the hybrid entrepreneur's prior occupation status, i.e., we identified six occupation categories, including *CEO*, *self-employed*, *senior manager/liberal professional*, *worker*, *non-working*, and *other types of employees*. Second, in line with previous empirical findings, management experience and same sector experience can affect (full-time) entrepreneurship entry mode (Parker and van Praag, 2012; Bastié *et al.*, 2013). We coded *same sector experience* to measure whether the entrepreneur worked in the same sector prior to entering entrepreneurship.

Hybrid entrepreneur's educational attainment: We consider both formal education and occupational training. Formal education refers to school education, which is found to be positively associated with new venture start-up entry (Parker and van Praag, 2012; Bastié *et al.*, 2013; Block *et al.*, 2013b). In our analysis, *educational attainment* is a set of categorical variables that measure the entrepreneurs' highest educational degree at the time of entering hybrid entrepreneurship. Occupational training measures whether the entrepreneur has *received entrepreneurial training* in starting a business preceding entrepreneurship entry.

Hybrid entrepreneur's socio-demographic status: With respect to age, senior entrepreneurs have been shown to prefer business takeover to new venture start-up (Block *et al.*, 2013b). Bastié *et al.*, (2013) showed that female entrepreneurs are more likely to choose new venture start-up. Moreover, Kushnirovich *et al.* (2017) find differences between immigrants and native-born persons in terms of their perceived feasibility of becoming an entrepreneur. Based on these studies, we include the hybrid entrepreneur's *age*, *gender*, and *citizenship* in our analysis.

Hybrid entrepreneur's motivation: The first variable, *growth ambition*, equals one if the hybrid entrepreneur aims to develop his or her business and zero if he or she becomes an entrepreneur only to ensure his or her own job. Another dimension of motivation is whether the individual plans to be a *long-term entrepreneur* or to keep the business only for a short time period. We argue that growth- and long-term-oriented entrepreneurs are more willing to take on challenges and higher risk. Hence, these entrepreneurs are more likely to start a new firm on their own instead of acquiring an existing firm (Block *et al.*, 2013b).

Support for the hybrid entrepreneur: Entrepreneurs may receive support from close family or friends who have entrepreneurship or business experience (Bastié *et al.*, 2013). Therefore, we code entrepreneurs in close relational circle as one if the hybrid entrepreneur has business leaders or self-employed individuals in his or her close relational circle. Another type of support for the entrepreneur is government support, which is measured by whether the hybrid entrepreneur has *received social benefits*.

Firm's financial structure and public aid: In line with Parker and van Praag (2012) and Bastié *et al.* (2013), we account for the start-up capital of the new venture or business takeover through a set of categorical variables: *start-up capital less than 2k €*, *between 2k € and 16k €*, *between 16k € and 80k €*, and *larger than 80k €*. Next, we measure the percentage of funding from

the entrepreneur, family, or associate in the total amount of start-up capital. Finally, we consider whether the firm has *received public aid* when it was started or taken over.

Regional environment: We classified the 26 regions in our dataset into two categories according to regional population density and economic status. The variable *urban* equals one if the firm is located in an urban area and zero if it is in rural area.

Industry categories: We control for industry differences by including nine industry categories: *agricultural food, non-agricultural food, construction, commerce, transport, real estate, business services, personal services, education, health, and social work*. Business services and commerce make up more than half of the new venture start-ups founded by hybrid entrepreneurs, whereas more than half of business takeovers occurred in the personal services sector.

Table 1 summarizes the operationalization of our variables.

[Insert Table 1 here]

Regression analysis

We construct the hybrid entrepreneur subsample from a mixed sample of hybrid and full-time entrepreneurs, which may lead to a selection bias. To account for this possibility, we performed a two-step Heckman probit model in which the dependent variable of the first-stage selection regression is the *hybrid entrepreneurship* dummy and the dependent variable in the second-stage outcome regression is the *business takeover* dummy. The independent variables in the selection regression are the individual's prior occupation, the size of firms where he or she worked previously, same sector experience, educational attainment, age, gender, and start-up capital, and whether there are entrepreneurs in his or her close relational circle (Wennberg *et al.*, 2006; Folta *et al.*, 2010; Petrova, 2012; Raffiee and Feng, 2014). We insert into the outcome

regression a full set of independent variables described and discussed in the previous section except for firm experience in terms of employer size.^{iv}

As robustness checks, we also conducted a rare events logistics regression, a simple logit regression (not accounting for selection), and a logit regression excluding solo entrepreneurs.

Results

Univariate results

Table 2 compares the characteristics of hybrid entrepreneurs who chose business takeover with those who chose new venture start-up. We conducted t-tests on the equality of means for all variables and observe some interesting results. Regarding *prior work experience*, both former *CEOs* (31% vs. 21%) and *workers* (13% vs. 7%) favour business takeover as an entry mode, whereas *senior managers* or *liberal professionals* prefer new venture start-up (20% vs. 6%). Moreover, on average, hybrid entrepreneurs who choose new venture start-up possess higher *educational attainment* (for example, those with more than an A-level diploma is 45% vs. 18%) and are more likely to be *French* (91% vs. 86%). In contrast, senior hybrid entrepreneurs *50 years or older* are more likely to choose business takeover (22% vs. 18%). With respect to hybrid entrepreneurs' motivation, the univariate test results show that hybrid entrepreneurs who choose business takeover show a stronger *growth ambition* than those who choose new venture start-up (69% vs. 55%). The comparison of the firms' financial structure shows that business takeovers are characterized by higher start-up capital (for example, start-up capital > 80k € is 27% vs. 9%) and a lower percentage of self-funding (37% vs. 62%).

[Insert Table 2 here]

Regression results

To analyse potential multicollinearity issues, we calculate correlations among the full set of independent variables and variance inflation factors (VIFs; Table 3). All VIFs are below 4, indicating that multicollinearity is unlikely to be a major concern in our analysis.

[Insert Table 3 here]

Table 4 displays the outcome regression of the Heckman probit model. The results of the selection regression are displayed in the appendix. The dependent variable in the outcome regression equals one if the hybrid entrepreneur chose business takeover as his or her entry mode and zero if he or she chose new venture start-up.

We find interesting results regarding the impact of hybrid entrepreneurs' previous work status on their entrepreneurship entry mode. Hybrid entrepreneurs who were *CEOs, senior managers* or *liberal professionals* are more likely to choose new venture start-up. In contrast, hybrid entrepreneurs who were *workers and non-working individuals* are more likely to opt for business takeover. However, we do not find significant effects for former *self-employed* individuals. Furthermore, we investigate how *same sector experience* influences the entry mode of hybrid entrepreneurs, and the regression results show a positive relationship between *same sector experience* and business takeover.

Regarding *educational attainment*, we find that higher-educated entrepreneurs favour new venture start-up. However, whether the hybrid entrepreneur has *received entrepreneurial training* or not does not significantly affect his or her entry mode. In terms of socio-demographic status, we do not find significant effects of age or nationality. With respect to gender, our findings indicate that *female* hybrid entrepreneurs are more likely to choose business takeover. Moreover, we find

that business takeover is more likely to be chosen by hybrid entrepreneurs with stronger *growth ambitions* and those having *received social benefits*.

With respect to firm characteristics, we find that higher *start-up capital* is positively associated with business takeover, whereas new venture start-up is positively linked with a higher *percentage of self-funding* and having *received public aid*. Moreover, the coefficient of the *urban* variable is negative and statistically significant, indicating that urbanity promotes new venture start-up.

Nine industry categories are included in the regression model, and a test of joint significance yields a significant p-value ($p < 0.001$). Hence, the likelihood of choosing new venture start-up or business takeover can be distinguished across different industries.

[Insert Table 4 here]

We performed three robustness checks and present the regression results in Table 5. First, we estimated the outcome regression as a simple logit model without accounting for selection. Second, we used a more strict statistical method that corrects for estimation bias caused by rare events, namely, a rare events logistic regression. Our dependent variable business takeover shows a relatively skewed distribution: only 5.5% of hybrid entrepreneurs chose business takeover, whereas 94.5% chose new venture start-up. We used a method proposed by King and Zeng (2001) that helps to adjust estimation bias for logistic regressions using small samples or rare events data. Note that the rare events regression does not account for potential selection bias related to hybrid entrepreneurship. Third, we adopted a narrow definition of entrepreneurship, which defines entrepreneurship activity as coordination between at least two people (Raffiee and Feng, 2014).

Hence, we removed solo hybrid entrepreneurs who are the only employees in their firm and are left with 3,905 hybrid entrepreneurs. Again, this robustness check does not account for selection bias. The results of the three robustness checks are similar to the results of our main regression using the Heckman probit model. In particular, the variables regarding senior managers, workers, educational attainment, gender, and having received social benefits are robust.

[Insert Table 5 here]

Discussion

To the best of our knowledge, our paper is the first study to investigate hybrid entrepreneurs' entry mode. Previous studies on the entrepreneurship entry mode did not focus on hybrid entrepreneurs or explicitly left them out (Parker and van Praag, 2012; Bastié *et al.*, 2013; Block *et al.*, 2013b; Rocha *et al.*, 2015; Kay and Schlömer-Laufen, 2016). Because hybrid entrepreneurs are different from full-time entrepreneurs in terms of their motivation (Burmeister-Lamp *et al.*, 2012), time commitment (Lévesque and Schade, 2005; Burmeister-lamp *et al.*, 2012; Petrova, 2012), and risk bearing (Lévesque and Schade, 2005; Raffiee and Feng, 2014), it is necessary to separate hybrid entrepreneurs from full-time entrepreneurs when examining entrepreneurship entry mode. We recognize the uniqueness of hybrid entrepreneurs and therefore focus on their entry modes: business takeover and new venture start-up. Our study contains four important contributions.

First, our study shows that hybrid entrepreneurs who were formerly senior managers or liberal professionals tend to choose new venture start-up as an entrepreneurship entry mode. We argue that financial benefits are not the primary motive for entrepreneurs who were formerly in management positions. In contrast, these persons are driven by non-financial aspects of entrepreneurship, such as the need for achievement (Johnson, 1990; Stewart and Roth, 2007), the

desire for autonomy and independence (Kuratko *et al.*, 1997), or an escape from a former employer's poor management (Cooper, 1971; Garvin, 1983). By starting up a new firm from scratch, entrepreneurs can realize their non-financial entrepreneurial motivations since they have the freedom to structure the firm according to their preferences from the onset. Moreover, because individuals in management positions are more likely to build an effective professional network (Debrulle and Maes, 2015), they may have a greater likelihood of finding new business opportunities and more resources to pursue these opportunities by creating new businesses. Likewise, the finding that higher educational attainment leads to new venture start-up can be explained by the argument that more-educated persons possess knowledge and ability that favours opportunity identification and exploitation, and they are more entrepreneurial than their counterparts (Block *et al.*, 2013a). People in liberal professions such as law and accounting, which require authorized qualification as a proof of professional knowledge and skills, are more likely to start their own firms so that they can build a professional reputation that is closely connected to their own names or titles instead of taking over an existing firm that bears someone else's name.

Second, workers are more likely to take over an existing firm rather than start a new one. The reasons workers resign from an employment relationship and subsequently enter into entrepreneurship commonly include their dissatisfaction with the low wages or a career ceiling (see Parker, 2009 for a discussion). For these entrepreneurs who lack business networks and leadership experience, purchasing an existing firm seems to be a more reasonable way of becoming an entrepreneur because the establishments and resources of the acquired firm can help them transition relatively smoothly from paid employment into entrepreneurship.

Third, the finding that female hybrid entrepreneurs prefer business takeover to new venture start-up contradicts Kay and Schlömer-Laufen's (2016) findings for female full-time entrepreneurs, suggesting a difference between female full-time and hybrid entrepreneurs regarding their

entrepreneurship mode of entry. To explain our finding, consider the previous finding that female entrepreneurs often face more difficulties in obtaining financial support for their new businesses from banks than male entrepreneurs do (Marlow and Patton, 2005). Female entrepreneurs' opportunity to obtain credit from a bank depends on the selection criteria imposed on the applicants and the gender of the bank loan officer (Carter *et al.*, 2007). We argue that female entrepreneurs may encounter several obstacles when entering into entrepreneurship, such as financial constraints and a lack of network support, which then hinder them from starting a new business from scratch and push them towards business takeovers that have both a track record and resources.

Finally, our results show that entrepreneurs in urban areas are more likely to start a new venture rather than take over an existing firm. Characterized by dynamic economic sectors, mature business markets, and advanced technology, urban regions have a greater capacity to nurture creative business projects, such as new venture creation (Lee *et al.*, 2004). In contrast, in rural areas, where business activities are not as active, business transfer may be a more popular way to enter entrepreneurship. Moreover, prior research shows that knowledge spillovers are an important source of entrepreneurial opportunities and innovative start-ups (Block *et al.*, 2017). Due to an agglomeration effect on business sector formation, knowledge spillovers in the form of new venture start-ups are more likely to occur in densely populated areas where abundant talent and business opportunities can be matched.

Our study has implications for policy makers in terms of business transfer and new venture creation policy. Because business takeovers and new venture start-ups attract individuals with distinct characteristics and backgrounds, they should be treated as two distinct entrepreneurship entry modes. In addition to creating entrepreneurial training programs for new venture creators, policy makers should observe the demand for support programs for business acquirers, through which entrepreneurs can obtain knowledge that is important and useful for business transfer.

Furthermore, the results of this study show that female workers, among others, prefer business takeover to new venture start-up. These individuals are, however, often overlooked when firms seek outside successors. To successfully complete the business transfer process, policy makers can provide support to these individuals in the form of subsidized credits or business training programs. Finally, our finding that urban and rural entrepreneurs choose different entrepreneurship entry modes suggests that policy measures should be differentiated across regions. For instance, because hybrid entrepreneurs in urban areas are more likely to choose new venture start-up, entrepreneurial training programs in those areas should focus on the knowledge and skills that are essential for new venture creators. Conversely, training programs in rural areas can aim to fulfil the needs of entrepreneurs pursuing business takeovers.

Conclusion, limitations, and avenues for future research

Hybrid entrepreneurship is a worldwide phenomenon, but it has not been widely studied by academic scholars. Using a large sample of hybrid entrepreneurs who entered into entrepreneurship in 2002, we investigate hybrid entrepreneurs' entry modes between business takeover and new venture start-up. We find that each entry mode is linked to particular determinants. Whereas management experience and educational attainment promote new venture start-up, same sector experience encourages business takeover. Our study adds to the understanding of hybrid entrepreneurs and contributes to the literature on hybrid entrepreneurship and entrepreneurship entry mode.

This study has several limitations. First, we identified an entrepreneur's work status prior to entrepreneurship, but we were unable to capture the diversity of an entrepreneur's work experience. Entrepreneurs may have held multiple occupations before they entered into

entrepreneurship. Second, we measured sector experience according to the similarity between the prior sector of employment and the present sector. However, a hybrid entrepreneur's industry tenure in the same sector may determine the switching cost of entering into entrepreneurship and thereby impact his or her entrepreneurship entry mode. Third, we controlled for non-financial entrepreneurship intentions such as growth ambition; however, other non-financial motivations may play a role in determining entrepreneurship entry mode.

We suggest the following avenues for future research. First, Lazear (2005) proposed that individuals with varied work experience are more likely to become entrepreneurs. Future research could investigate how hybrid entrepreneurs' varied skillsets can affect their entrepreneurship entry mode. Moreover, longer industry tenure deters entrepreneurs from entering into full-time entrepreneurship (Folta *et al.*, 2010). Future research should incorporate various measurements of entrepreneurs' work experience, including industry tenure. Second, financial motivations such as supplementing income and nonfinancial motivations such as self-realization have been found to affect hybrid entrepreneurs' transition behaviour (Block and Landgraf, 2016). Additional research should investigate how financial and nonfinancial motivations affect hybrid entrepreneurs' choice of entry mode. Third, other demographic factors such as marital status, having self-employed parents, and the level of household income may also influence hybrid entrepreneurs' entry mode decisions. Finally, it would be interesting to analyse which entry mode is more successful than the other. Such a study can provide information about the performance of different types of entrepreneurship, which can be useful for policy makers and individuals who intend to become entrepreneurs.

References

- Åstebro, T. and J. Chen, 2014, “The entrepreneurial earnings puzzle: mismeasurement or real?” *Journal of Business Venturing*, 29: 88–105.
- Bastié, F., S. Cieply and P. Cussy, 2013, “The entrepreneur’s mode of entry: the effect of social and financial capital.” *Small Business Economics*, 40: 865–877.
- Block, J., C. Fisch and M. van Praag, 2017, “The Schumpeterian entrepreneur: a review of the empirical evidence on the antecedents, behaviour and consequences of innovative entrepreneurship.” *Industry and Innovation*, 24: 61–95.
- Block, J., L. Hoogerheide and R. Thurik, 2013a, “Education and entrepreneurial choice: an instrumental variables analysis.” *International Small Business Journal*, 31: 23–33.
- Block, J. and A. Landgraf, 2016, “Transition from part-time entrepreneurship to full-time entrepreneurship: the role of financial and non-financial motives.” *International Entrepreneurship and Management Journal*, 12: 259–282.
- Block, J., R. Thurik, P. van der Zwan and S. Walter, 2013b, “Business takeover or new venture? individual and environmental determinants from a cross-country study.” *Entrepreneurship Theory and Practice*, 37: 1099–1121.
- Burmeister-Lamp, K., M. Lévesque and C. Schade, 2012, “Are entrepreneurs influenced by risk attitude, regulatory focus or both? An experiment on entrepreneurs’ time allocation.” *Journal of Business Venturing*, 27: 456–476.
- Carter, S., E. Shaw, W. Lam and F. Wilson, 2007, “Gender, entrepreneurship, and bank lending: the criteria and processes used by bank loan officers in assessing applications.” *Entrepreneurship Theory and Practice*, 31: 427–444.
- Cooper, A. C., 1971, “The founding of technologically-based firms.” *Center for Venture Management, Milwaukee, Wis.*, 68.

- Cooper, A. C. and W. C. Dunkelberg, 1986. "Entrepreneurship and paths to business ownership." *Strategic Management Journal*, 7: 53–68.
- Debrulle, J. and J. Maes, 2015, "Start-ups' internationalization: the impact of business owners' management experience, start-up experience and professional network on export intensity." *European Management Review*, 12: 171–187.
- Douglas, E. J. and D. A. Shepherd, 2002, "Self-employment as a career choice: attitudes, entrepreneurial intentions, and utility maximization." *Entrepreneurship Theory and Practice*, 26: 81–90.
- Folta, T. B., F. Delmar and K. Wennberg, 2010, "Hybrid entrepreneurship." *Management Science*, 56: 253–269.
- Garvin, D. A., 1983, "Spin-offs and the new firm formation process." *California Management Review*, 25: 3–20.
- Gruenert, J. C., 1999, "Second job entrepreneurs." *Occupational Outlook Quarterly*, 43: 18–26.
- Hamilton, B. H., 2000, "Does entrepreneurship pay? An empirical analysis of the returns to self-employment." *Journal of Political Economy*, 108: 604–631.
- Johnson, B. R., 1990, "Toward a multidimensional model of entrepreneurship: the case of achievement motivation and the entrepreneur." *Entrepreneurship Theory and Practice*, 14: 39–54.
- Kay, R. and N. Schlömer-Laufen, 2016, "Business takeover or new venture? (Why) do women prefer new ventures?" *International Review of Entrepreneurship*, 14: 313–322.
- Kimmel, J. and K. S. Conway, 2001, "Who moonlights and why? Evidence from the SIPP." *Industrial Relations*, 40: 89–120.
- King, G. and L. Zeng, 2001, "Logistic regression in rare events data." *Political Analysis*, 9: 137–163.

- Kuratko, D. F., J. S. Hornsby and D. W. Naffziger, 1997, "An examination of owner's goals in sustaining entrepreneurship." *Journal of Small Business Management*, 35: 24–33.
- Kushnirovich, N., S. Heilbrunn and L. Davidovich, 2017, "Diversity of entrepreneurial perceptions: immigrants vs. native population." *European Management Review*, forthcoming.
- Lazear, E. P., 2005, "Entrepreneurship." *Journal of Labor Economics*, 23: 649–680.
- Lee, S. Y., R. Florida and Z. Acs, 2004, "Creativity and entrepreneurship: a regional analysis of new firm formation." *Regional Studies*, 38: 879–891.
- Lévesque, M. and K. R. MacCrimmon, 1997, "On the interaction of time and money invested in new ventures." *Entrepreneurship Theory and Practice*, 22: 89–110.
- Lévesque, M. and C. Schade, 2005, "Intuitive optimizing: experimental findings on time allocation decisions with newly formed ventures." *Journal of Business Venturing*, 20: 313–342.
- Markantoni, M., S. Koster, D. Strijker and M. Woolvin, 2013, "Contributing to a vibrant countryside: the impact of side activities on rural development." *Tijdschrift Voor Economische En Sociale Geografie*, 104: 292–307.
- Marlow, S. and D. Patton, 2005, "All credit to men? entrepreneurship, finance, and gender." *Entrepreneurship Theory and Practice*, 29: 717–735.
- Parker, S. C., 2009, "Why do small firms produce the entrepreneurs?" *Journal of Socio-Economics*, 38: 484–494.
- Parker, S. C. and C. M. van Praag, 2012, "The entrepreneur's mode of entry: business takeover or new venture start?" *Journal of Business Venturing*, 27: 31–46.
- Petrova, K., 2012, "Part-time entrepreneurship and financial constraints: evidence from the panel study of entrepreneurial dynamics." *Small Business Economics*, 39: 473–493.
- Raffiee, J. and J. Feng, 2014, "Should I quit my day job?: a hybrid path to entrepreneurship." *Academy of Management Journal*, 57: 936–963.

- Rees, H. and A. Shah, 1986, "An empirical analysis of self-employment in the U.K." *Journal of Applied Econometrics*, 1: 95–108.
- Renna, F., 2006, "Moonlighting and overtime: a cross-country analysis." *Journal of Labor Research*, 27: 575–591.
- Rocha, V., A. Carneiro and C. A. Varum, 2015, "Entry and exit dynamics of nascent business owners." *Small Business Economics*, 45: 63–84.
- Schulz, M., D. Urbig and V. Procher, 2016, "Hybrid entrepreneurship and public policy: the case of firm entry deregulation." *Journal of Business Venturing*, 31: 272–286.
- Stewart, W. H. and P. L. Roth, 2007, "A meta-analysis of achievement motivation differences between entrepreneurs and managers." *Journal of Small Business Management*, 45: 401–421.
- Thorgren, S., C. Nordström and J. Wincent, 2014, "Hybrid entrepreneurship: the importance of passion." *Baltic Journal of Management*, 9: 314–329.
- Thorgren, S., C. Sirén, C. Nordström and J. Wincent, 2016, "Hybrid entrepreneurs' second-step choice: the nonlinear relationship between age and intention to enter full-time entrepreneurship." *Journal of Business Venturing Insights*, 5: 14–18.
- van Gelderen, M., R. Thurik and N. Bosma, 2006, "Success and risk factors in the pre-startup phase." *Small Business Economics*, 26: 319–335.
- Wennberg, K., T. B. Folta, and F. Delmar, 2006, "A real options model of stepwise entry into self-employment." *Frontiers of Entrepreneurship Research*, 26: Article 3.
- Yuanita, F. and R. Indudewi, 2015, "Success factors of hybrid entrepreneurs: case study of universitas ciputra academician." *Mediterranean Journal of Social Sciences*, 6: 84–90.

Table 1
Description of variables

Variable	Description
<i>Dependent variable in outcome regression</i>	
Business takeover	Dummy =1 if the hybrid entrepreneur has taken over a firm from outside; dummy = 0 if the hybrid entrepreneur has started a new venture (Q5/7/17).
<i>Hybrid entrepreneur's prior work experience</i>	
CEO	Dummy =1 if the hybrid entrepreneur was a CEO (Q5/6).
Self-employed	Dummy =1 if the hybrid entrepreneur was self-employed (Q5/6).
Senior manager, liberal professional ^a	Dummy =1 if the hybrid entrepreneur was a senior manager or liberal professional (Q5/6).
Worker	Dummy =1 if the hybrid entrepreneur was a worker (Q5/6).
Not-working	Dummy =1 if the hybrid entrepreneur was not working or was a student (Q5/6).
Other types of employees	Dummy =1 if the hybrid entrepreneur was a regular employee (Q5/6).
No prior work experience	Dummy =1 if the hybrid entrepreneur has no prior work experience (Q9).
Small firm experience	Dummy =1 if the hybrid entrepreneur has work experience gained mainly from firm(s) with less than 50 employees (Q9).
Medium firm experience	Dummy =1 if the hybrid entrepreneur has work experience gained mainly from firm(s) with 50 to 249 employees (Q9).
Large firm experience	Dummy =1 if the hybrid entrepreneur has work experience gained mainly from firm(s) with over 250 employees (Q9).
Same sector experience	Dummy =1 if the hybrid entrepreneur has worked in the same sector before (Q10).
<i>Hybrid entrepreneur's educational attainment</i>	
No diploma	Dummy =1 if the hybrid entrepreneur has no diploma (Q4).
Lower than A-level diploma	Dummy =1 if the hybrid entrepreneur has lower than A-level diploma (Q4).
A-level diploma	Dummy =1 if the hybrid entrepreneur has A-level diploma (Q4).
A-level plus two years of education	Dummy =1 if the hybrid entrepreneur has A-level diploma plus two years education (Q4).
A-level plus over two years of education	Dummy =1 if the hybrid entrepreneur has A-level diploma plus more than two years education (Q4).
Received entrepreneurial training	Dummy =1 if the hybrid entrepreneur has received specific training for his or her business (Q21).
<i>Hybrid entrepreneur's socio-demographic status</i>	
Age under 35	Dummy =1 if the hybrid entrepreneur is less than 35 years old (Q1).
Age between 35 and 49	Dummy =1 if the hybrid entrepreneur is between 35 and 49 years old (Q1).
Age over 50	Dummy =1 if the hybrid entrepreneur is over 50 years old (Q1).
Female	Dummy =1 if the hybrid entrepreneur is female (Q2).
French	Dummy =1 if the hybrid entrepreneur is French (Q3).
<i>Hybrid entrepreneur's motivation</i>	
Growth ambition	Dummy =1 if the hybrid entrepreneur's primary goal is to develop his or her business; dummy = 0 if the primary goal is to ensure his or her own job (Q16).
Motivation to be long-term entrepreneur	Dummy =1 if the hybrid entrepreneur plans to run the business in the long run; dummy= 0 if the hybrid entrepreneur plans to keep the business for a limited time (Q15).
<i>Support for the hybrid entrepreneur</i>	
Entrepreneurs in close relational circle	Dummy =1 if the hybrid entrepreneur has business leaders or self-employed people in his or her close relational circle (Q12).
Received social benefit	Dummy =1 if the hybrid entrepreneur has received basic social benefits (Q8).
<i>Firm's financial structure and public aid</i>	
Start-up capital <2k	Dummy =1 if the start-up capital is less than 2,000 €(Q23).
Start-up capital 2-16k	Dummy =1 if the start-up capital is from 2,000 €to less than 16,000 €(Q23).
Start-up capital 16-80k	Dummy =1 if the start-up capital is from 16,000 €to less than 80,000 €(Q23).
Start-up capital >80k	Dummy =1 if the start-up capital is more than 80,000 €(Q23).
Percentage of self-funding	The percentage of self-funding or funding from family or associate in the total amount of start-up capital (Q25)
Received public aid	Dummy =1 if the firm has received public aid (Q27).
Urban	Dummy =1 if the new venture or takeover occurred in a predominantly urban region.
Industry categories	9 industries: Agricultural food, non-agricultural food, construction, commerce, transport, real estate, business services, personal services, education, health and social work. The definition is based on French Classification of Activities (NAF)

Notes: ^a the liberal professions include lawyers, notaries, engineers, architects, doctors, dentists, and accountants (European commission definition).

Table 2
Descriptive statistics: means and t-tests of mean differences

	New venture start-up (mean)	Business takeover (mean)	t-value (t-test of mean differences)
<i>Hybrid entrepreneur's prior work experience</i>			
CEO	0.21	0.31	-4.88***
Self-employed	0.04	0.06	-1.88
Senior manager, liberal professional	0.20	0.06	11.68***
Worker	0.07	0.13	-3.97***
Not-working	0.06	0.05	1.63
Other types of employees	0.42	0.39	1.40
No prior work experience	0.15	0.15	-0.35
Same sector experience	0.45	0.48	-1.49
<i>Hybrid entrepreneur's educational attainment</i>			
No diploma	0.11	0.24	-6.45***
Lower than A-level diploma	0.23	0.42	-8.44***
A-level diploma	0.20	0.16	2.64**
A-level plus two years of education	0.14	0.09	3.55***
A-level plus over two years of education	0.31	0.09	16.19***
Received entrepreneurial training	0.18	0.17	0.30
<i>Hybrid entrepreneur's socio-demographic status</i>			
Age under 35	0.34	0.25	4.58***
Age between 35 and 49	0.47	0.53	-2.28*
Age over 50	0.18	0.22	-2.05*
Female	0.27	0.31	-1.62
French	0.91	0.86	3.08**
<i>Hybrid entrepreneur's motivation</i>			
Growth ambition	0.55	0.69	-6.34***
Motivation to be long-term entrepreneur	0.83	0.84	-0.91
<i>Support for the hybrid entrepreneur</i>			
Entrepreneurs in close relational circle	0.66	0.63	1.64
Received social benefit	0.03	0.04	-1.63
<i>Firm's financial structure and public aid</i>			
Start-up capital <2k	0.24	0.05	16.55***
Start-up capital 2-16k	0.52	0.25	13.35***
Start-up capital 16-80k	0.15	0.42	-12.04***
Start-up capital >80k	0.09	0.27	-9.04***
Percentage of self-funding	0.62	0.37	14.18***
Received public aid	0.10	0.09	0.63
Number of hybrid entrepreneurs	8,532	500	9,032

Notes: * p<0.05, ** p<0.01, *** p<0.001.

Table 3
Correlation table

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	VIF
1 Business takeover	-																												1.10
2 CEO	0.06	-																											1.60
3 Self-employed	0.02	-0.11	-																										1.09
4 Senior manager, liberal professional	-0.08	-0.25	-0.11	-																									1.47
5 Worker	0.05	-0.15	-0.06	-0.14	-																								1.21
6 Not-working	-0.02	-0.13	-0.05	-0.13	-0.07	-																							1.19
7 Small firm experience	0.04	0.09	0.05	-0.13	0.05	-0.05	-																						2.33
8 Medium firm experience	0.00	0.05	-0.01	0.06	-0.05	-0.04	-0.43	-																					1.76
9 Large firm experience	-0.06	-0.06	-0.06	0.22	-0.08	-0.05	-0.50	-0.17	-																				1.98
10 Same sector experience	0.02	0.10	0.01	0.05	-0.01	-0.06	0.15	0.02	-0.03	-																			1.10
11 Lower than A-level diploma	0.10	-0.01	0.06	-0.20	0.16	-0.02	0.09	-0.06	-0.12	-0.04	-																		2.43
12 A-level diploma	-0.03	0.04	-0.02	-0.06	-0.06	-0.02	0.07	-0.03	-0.04	-0.04	-0.28	-																	2.31
13 A-level plus two years of education	-0.03	0.00	-0.03	0.00	-0.07	0.00	-0.03	0.07	0.01	-0.06	-0.23	-0.20	-																2.09
14 A-level plus over two years of education	-0.11	0.00	-0.04	0.34	-0.16	-0.01	-0.19	0.08	0.22	0.10	-0.37	-0.33	-0.26	-															3.06
15 Received entrepreneurial training	0.00	-0.13	-0.01	-0.12	0.14	0.04	0.05	-0.05	-0.04	-0.02	0.12	0.00	-0.04	-0.11	-														1.09
16 Age between 35 and 49	0.02	0.05	0.04	0.00	-0.02	-0.08	-0.03	0.03	0.03	-0.02	0.01	-0.01	-0.03	0.01	-0.03	-													1.36
17 Age over 50	0.02	0.21	0.02	0.03	-0.06	-0.07	-0.01	0.06	0.00	0.06	0.02	0.02	-0.03	0.00	-0.08	-0.46	-												1.44
18 Female	0.02	-0.20	0.01	-0.06	-0.07	0.06	0.02	-0.05	-0.04	-0.11	-0.02	0.00	0.05	-0.01	0.04	0.02	-0.05	-											1.11
19 French	-0.04	0.05	-0.04	0.07	-0.19	0.00	-0.10	0.07	0.07	-0.05	0.03	-0.04	0.08	0.11	-0.05	0.00	0.00	0.03	-										1.11
20 Growth ambition	0.06	0.24	0.02	0.03	-0.04	-0.04	0.06	0.03	0.01	0.02	-0.02	0.07	0.03	-0.07	-0.06	-0.01	0.02	-0.13	-0.01	-									1.23
21 Motivation to be long-term entrepreneur	0.01	0.10	-0.03	-0.07	-0.01	-0.01	0.06	0.03	-0.06	0.03	0.00	0.01	0.06	-0.03	0.01	0.07	-0.08	-0.04	0.02	0.15	-								1.07
22 Entrepreneurs in close relational circle	-0.02	0.07	0.02	-0.01	-0.07	0.00	0.06	0.02	-0.05	0.03	-0.02	0.03	0.08	-0.02	-0.02	0.03	-0.05	0.01	0.04	0.06	0.09	-							1.04
23 Received social benefit	0.02	-0.05	0.04	-0.07	0.05	0.24	0.03	0.00	-0.05	0.02	0.03	-0.01	-0.03	-0.03	0.02	0.01	-0.02	0.00	-0.07	-0.05	-0.02	-0.03	-						1.14
24 Start-up capital 2-16k	-0.12	-0.09	-0.01	0.00	0.04	0.04	0.06	-0.05	-0.01	-0.04	0.02	0.01	-0.01	-0.04	0.07	-0.03	-0.04	0.05	-0.04	0.04	0.03	-0.02	0.05	-					1.75
25 Start-up capital 16-80k	0.17	0.09	0.04	0.01	-0.03	-0.03	0.03	0.02	-0.03	-0.03	0.02	0.02	0.01	-0.04	-0.02	0.01	0.03	-0.05	0.01	0.14	0.05	-0.01	-0.05	-0.45	-				1.70
26 Start-up capital >80k	0.14	0.25	0.00	0.02	-0.07	-0.06	0.00	0.04	0.03	0.09	-0.02	-0.02	0.03	0.05	-0.06	0.03	0.09	-0.10	0.04	0.19	0.07	0.08	-0.03	-0.34	-0.15	-			1.62
27 Percentage of self-funding	-0.13	-0.11	-0.02	0.08	-0.06	-0.01	-0.03	0.02	0.05	-0.05	-0.12	0.01	0.02	0.12	-0.04	-0.02	-0.03	0.03	-0.02	-0.07	-0.01	-0.03	-0.05	0.15	-0.12	-0.20	-		1.13
28 Received public aid	-0.01	-0.11	-0.01	-0.04	0.04	0.16	0.02	-0.01	-0.03	0.01	0.05	-0.02	0.00	-0.04	0.13	-0.01	-0.07	0.04	-0.01	-0.03	0.03	0.00	0.25	0.03	0.04	-0.03	-0.10	-	1.13

Notes: number of hybrid entrepreneurs = 9,032. Correlation coefficients that are above 0.04 (in absolute value) are significant at 0.1% significance level.

Table 4
Outcome regression of the Heckman probit model

	Coefficient (standard error)	
<i>Dependent variable: 1 = business takeover</i>		
<i>Hybrid entrepreneur's prior work experience</i>		
Base category: other types of employees		
CEO	-0.48**	(0.15)
Self-employed	0.21	(0.12)
Senior manager, liberal professional	-0.32***	(0.08)
Worker	0.36***	(0.07)
Not-working	0.52**	(0.17)
Same sector experience	0.28***	(0.05)
<i>Hybrid entrepreneur's educational attainment</i>		
Base category: no diploma		
Lower than A-level diploma	0.00	(0.06)
A-level diploma	-0.32***	(0.08)
A-level plus two years of education	-0.44***	(0.10)
A-level plus over two years of education	-0.64***	(0.13)
Received entrepreneurial training	-0.01	(0.05)
<i>Hybrid entrepreneur's socio-demographic status</i>		
Base category: age under 35		
Age between 35 and 49	0.06	(0.05)
Age over 50	0.11	(0.07)
Female	0.15**	(0.06)
French	-0.03	(0.07)
<i>Hybrid entrepreneur's motivation</i>		
Growth ambition	0.12*	(0.05)
Motivation to be long-term entrepreneur	-0.07	(0.05)
<i>Support for the hybrid entrepreneur</i>		
Entrepreneurs in close relational circle	-0.05	(0.04)
Received social benefit	0.30*	(0.13)
<i>Firm's financial structure and public aid</i>		
Base category: start-up capital: <2k		
Start-up capital 2-16k	0.34***	(0.09)
Start-up capital 16-80k	1.02***	(0.18)
Start-up capital >80k	1.07***	(0.21)
Percentage of self-funding	-0.26**	(0.08)
Received public aid	-0.21*	(0.09)
Urban	-0.18***	(0.04)
Industry dummies are included	Yes***	
Constant	-0.29	(0.50)
Number of hybrid entrepreneurs	9,032	
Log likelihood	-23,988.40	
Chi2	905.15***	
Rho	-0.77 (p= 0.1131)	

Notes: determinants of entry modes into hybrid entrepreneurship: business takeover (dummy=1) versus new venture start-up (dummy=0). The estimation results of the selection regression of the Heckman probit model are presented in the Appendix (Table A1). Significance level: * p<0.05, ** p<0.01, *** p<0.001.

Table 5
Robustness checks

	Robustness check I Simple logistic regression	Robustness check II Logistic regression using method proposed by King and Zeng (2001)	Robustness check III The sample excludes sole firm owners
<i>Hybrid entrepreneur's prior work experience</i>			
Base category: other types of employees			
CEO	0.03 (0.15)	0.03 (0.15)	-0.07 (0.17)
Self-employed	-0.22 (0.24)	-0.21 (0.24)	-0.45 (0.28)
Senior manager, liberal professional	-0.74** (0.23)	-0.72** (0.23)	-0.93*** (0.25)
Worker	0.55** (0.18)	0.55** (0.18)	0.63** (0.23)
Not-working	-0.14 (0.27)	-0.13 (0.27)	0.22 (0.31)
Same sector experience	0.26* (0.11)	0.26* (0.11)	0.23 (0.13)
<i>Hybrid entrepreneur's educational attainment</i>			
Base category: no diploma			
Lower than A-level diploma	-0.11 (0.15)	-0.11 (0.15)	0.03 (0.18)
A-level diploma	-0.70*** (0.18)	-0.69*** (0.18)	-0.49* (0.21)
A-level plus two years of education	-0.91*** (0.21)	-0.90*** (0.21)	-0.81*** (0.24)
A-level plus over two years of education	-1.46*** (0.21)	-1.44*** (0.21)	-1.25*** (0.24)
Received entrepreneurial training	0.01 (0.15)	0.01 (0.15)	0.09 (0.18)
<i>Hybrid entrepreneur's socio-demographic status</i>			
Base category: age under 35			
Age between 35 and 49	0.28* (0.13)	0.28* (0.13)	0.51** (0.16)
Age over 50	0.42* (0.16)	0.41* (0.16)	0.53** (0.19)
Female	0.36** (0.13)	0.35** (0.12)	0.31* (0.15)
French	-0.28 (0.17)	-0.29 (0.17)	-0.11 (0.19)
<i>Hybrid entrepreneur's motivation</i>			
Growth ambition	0.35** (0.13)	0.35** (0.12)	0.08 (0.15)
Motivation to be long-term entrepreneur	-0.13 (0.15)	-0.13 (0.15)	-0.01 (0.17)
<i>Support for the hybrid entrepreneur</i>			
Entrepreneurs in close relational circle	-0.16 (0.11)	-0.16 (0.11)	-0.28* (0.13)
Received social benefit	1.03*** (0.29)	1.04*** (0.28)	1.09** (0.36)
<i>Firm's financial structure and public aid</i>			
Base category: start-up capital: <2k			
Start-up capital 2-16k	0.91*** (0.23)	0.90*** (0.23)	-0.05 (0.28)
Start-up capital 16-80k	2.47*** (0.23)	2.43*** (0.23)	1.31*** (0.29)
Start-up capital >80k	2.72*** (0.25)	2.68*** (0.25)	1.52*** (0.30)
Percentage of self-funding	-0.78*** (0.14)	-0.77*** (0.14)	-0.66*** (0.16)
Received public aid	-0.73*** (0.19)	-0.71*** (0.19)	-0.88*** (0.25)
Urban	-0.24* (0.11)	-0.23* (0.11)	-0.40** (0.13)
Industry dummies are included	Yes***	Yes***	Yes***

Constant	-3.39*** (0.39)	-3.33*** (0.39)	-2.02*** (0.46)
Number of hybrid entrepreneurs	9,032	9,032	3,905

Notes: determinants of entry modes into hybrid entrepreneurship: business takeover (dummy=1) versus new venture start-up (dummy=0). Standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001.

Appendix

Table A1

Heckman probit model: selection regression

	Coefficient (standard error)	
Dependent variable: 1 = hybrid entrepreneurship		
<i>Entrepreneur's work experience</i>		
Base category: other types of employee		
CEO	0.82***	(0.02)
Self-employed	-0.37***	(0.03)
Senior manager, liberal professional	0.18***	(0.02)
Worker	-0.26***	(0.02)
Not-working	-0.81***	(0.02)
Base category: no prior work experience		
Small firm experience	-0.03	(0.02)
Medium firm experience	0.07**	(0.03)
Large firm experience	-0.06*	(0.02)
Same sector experience	-0.28***	(0.01)
<i>Entrepreneur's educational attainment</i>		
Base category: no diploma		
Lower than A-level diploma	-0.09***	(0.02)
A-level diploma	0.08***	(0.02)
A-level plus two years of education	0.11***	(0.03)
A-level plus over two years of education	0.15***	(0.03)
<i>Entrepreneur's socio-demographic status</i>		
Base category: age under 35		
Age between 35 and 49	0.02	(0.01)
Age over 50	0.01	(0.02)
Female	-0.02	(0.02)
French	-0.09***	(0.02)
<i>Support for the hybrid entrepreneur</i>		
Entrepreneurs in close relational circle	0.01	(0.01)
<i>Firm's financial structure</i>		
Base category: start-up capital: <2k		
Start-up capital 2-16k	-0.09***	(0.02)
Start-up capital 16-80k	-0.29***	(0.02)
Start-up capital >80k	-0.24***	(0.03)
Urban	0.12***	(0.01)
Industry dummies are included		
Constant	-0.65***	(0.05)
Number of hybrid entrepreneurs	61,362	
Log likelihood	-23,988.40	
Chi2	905.15***	
Rho	-0.77 (p= 0.1131)	

Notes: this table reports estimation results of the selection regression of the Heckman model; the estimates of the outcome regression are reported in Table 4. The dependent variable is coded as 1 if the individual chose hybrid entrepreneurship, 0 if s/he is a full-time entrepreneur. The independent variables are chosen based on previous literature (Wennberg *et al.*, 2006; Folta *et al.*, 2010; Petrova, 2012; Raffiee and Feng, 2014). We drop categorical variables regarding experience in small firms, medium-sized firms, and large firms in the second stage of the Heckman selection model. Significance level: * p<0.05, ** p<0.01, *** p<0.001.

ⁱ European Commission: Labor Force Survey. Retrieved from <http://ec.europa.eu/eurostat/web/lfs/data/database> on July 4th, 2016. This study accounts for individuals who reported their first occupation as “employed” and their second occupation as “self-employed”, and vice versa.

ⁱⁱ INSEE definition: “salaried workers refer to all persons who work, under the terms of a contract, for another resident institutional unit in exchange for a salary or equivalent remuneration; non-salaried workers are persons who work but who are compensated in a form other than a salary”. Retrieved from <http://www.insee.fr/en/methodes/default.asp?page=definitions/emploi-salarie.htm> on May 7th, 2016.

ⁱⁱⁱ According to INSEE, takeover happens when “a legal entity partially or totally takes over the business of one or more economic entities of another legal entity.” Retrieved from <http://www.insee.fr/en/methodes/default.asp?page=definitions/reprise-entreprise.htm> on May 7th, 2016. SIRENE (Computerised System of the National Register of Enterprises and Establishments) defines a new venture as a new legal entity, which is assigned a new nine-digit Siren number when it is established. Retrieved from https://www.sirene.fr/sirene/public/static/definitions?sirene_locale=en on May 7th, 2016.

^{iv} We do not include *small firm*, *medium firm*, and *large firm experience* variables in the outcome regression because these variables are insignificant in a simple logistic regression that includes all independent variables and codes *business takeover* as the dependent variable. However, they are significant in the selection regression presented in Table A1 in the Appendix, which indicates that these variables affect an individual’s choice of entering on a full-time or a part-time basis but do not affect the individual’s entry mode choice between new venture start-up and business takeover.