When a non-gendered start-up policy delivers for female entrepreneurs: Evidence from the UK start-up loan scheme

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Abstract

This research contributes to the state of knowledge on gender aspects of entrepreneurship and SME-promoting policies from the perspective of the United Kingdom. In this paper, we draw upon the largest public policy intervention aimed explicitly at fostering new business start-ups, the Start-Up Loan (SUL) scheme. Since its inception in 2012 until the present day, question whether female start-up entrepreneurs were over-represented in terms of scheme participation, which would be the case if the barriers they face when seeking to start a new business are greater than their male peers. First, the study exploits available secondary data from the Eurostat and Global Entrepreneurship Monitor to determine the participation of females in entrepreneurship during the last decades. Second, we exploit the administrative data of the participants of the SUL scheme between 2012 and 2022 (N = 98,026). Methodologically, the study relies on summary statistical tools and estimation of the Cox proportional hazard models, predicting the loan default rates of the supported individuals across genders. With an average female representation of 40% over the last decade on the SUL scheme, which is significantly higher than in the UK business population, a very positive and unintended consequence of the scheme is that tens of thousands of female entrepreneurs were given the support that, in its absence, may have prevented or discouraged them from starting their new business. Furthermore, females participating in the SUL scheme have lower hazard rates than males.

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Introduction

Small business policy has a long history in the UK, dating back to its first loan guarantee scheme in 1981 (Cowling, 2010; Curran, 2000; Kitching, 2015) and its first explicit policy designed to encourage new business start-ups in 1983 (Lehmann, 1993). Throughout its history, public policy support has largely been nationally available and gender-neutral in its design and conception, although female rates of new business start-ups and their share of the small business population have remained consistently below 25% of the respective populations before the millennium (Cowling & Taylor, 2001). However, although the policy was not formulated with this gender imbalance in mind, it follows that if females faced greater barriers to business start-up (Henry et al., 2022a, b; Millán et al., 2012; Neergaard & Thrane, 2011; Ojong et al., 2021; Roper & Scott, 2009; Van Stel et al., 2023) and subsequently survival and growth (Coad & Tamvada, 2012), then they would have a higher demand for policy support given those policies in the UK have consistently been designed to correct for identifiable market failures and gaps in provision. However, to date, there has been little evidence of females being over-represented in government schemes as one might have expected, given the additional barriers they are perceived to face, although the evidence base is quite modest and fragmented (Syed, 2011; Fielden et al., 2006; Foss et al., 2019; Bergström & Styhre, 2022; Bodur Ün & Arikan, 2022; Engeman & Burman, 2022; Pandey et al., 2023; Jurik et al., 2023; Filandri et al., 2023).

In this research, we use data from the largest UK business start-up support scheme, the Start-Up Loan (SUL) scheme, covering a decade of support from 2012–2022 to 98,026 new entrepreneurs, to examine whether female representation in this flagship scheme was over and above their general representation in the start-up and established small business populations. Our working hypothesis is that if female entrepreneurs face greater barriers to starting their own businesses, then their representation would be proportionately greater in the SUL scheme. We then question what types of female entrepreneurs access the scheme and how they differ from their male peers. This will give us a greater understanding of the who and the why. Has the scheme, for example, really helped females transitioning into business start-ups from non-employment states in the labour market or females seeking to transition from part-time employment? Finally, we test whether business outcomes captured by 6-year survival rates are comparable across genders or whether females outperformed (or under-performed) their male peers.

Our results are detailed and add significant new knowledge to our understanding of the take-up of public start-up schemes and their impacts in the UK. The first key finding is that the female share of total scheme entry is 39.9%, which is significantly higher than their wider representation in the start-up and general small business populations. On this alone, we are drawn to conclude that the SUL scheme has been a success story for new female entrepreneurs. It particularly attracted females seeking to transition into business start-ups from part-time employment and non-market-based activity. Both of these labour market states have an over-representation of females. SUL take-up was also very high amongst highly educated females with a graduate

(and post-graduate) education or a very high-level professional qualification. On this, we are drawn to conclude that the SUL had particularly supported highly talented females seeking to build a new career path in entrepreneurship by starting their own businesses after a period when they stepped back on their labour market activity. The final key finding is that female scheme entrants have higher survival rates than their male peers. In short, the SUL scheme delivers for female entrepreneurs in terms of its relevance to them in supporting their transition into business start-ups and the outcomes they achieve subsequently. Overall, we conclude that policy does not need to have an explicit gender (or indeed any demographic characteristic) focus on delivering support, as those who are most constrained will access a particularly type of policy support if it has relevance to them and the specific barriers they face. Indeed, 39,161 female entrepreneurs in the UK over the last decade can testify to this.

The rest of the paper is organized as follows. "Literature review" reviews the literature on entrepreneurship policy with particular reference to gender differences. In "Data and sample summary statistics", we provide readers with data on the UK entrepreneurship developments across gender, then we discuss the SUL scheme and present the sample statistics. Our core econometric results are presented and discussed in "Gender aspects of the UK entrepreneurial activity" before we conclude in "The start-up loan scheme".

Literature review

We begin by recalling the established definition of entrepreneurship and SME policy actions provided by Stevenson and Lundström (2001, p. 23), who state that these are: "policy measures taken to stimulate entrepreneurship that are aimed at the pre-start, the start-up and post-start-up phases of the entrepreneurial process" (Stevenson & Lundström, 2001, p. 23). As a result of the definition, the policy actions could include both financial and non-financial supportive tools (OECD, 2023). There is a consensus among the scholarly community that the primary objective of these policies is to address market failures and imperfections, such as those in the financial markets limiting access to financial capital essential for starting a new business. However, despite that, public authorities allocate substantial financial resources to policies aiming to deliver "strategic economic goals", which are often not well defined or justified by the presence of market failures. These often aim to enhance the economies' competitiveness and innovativeness or support entrepreneurship among those disadvantaged or endangered individuals in the labour markets or those underrepresented in entrepreneurship, such as women, seniors, migrants or ethnical minorities (European Commission, 2012; OECD, 2023).

Yet, to understand their impacts, we need to conduct regular impact evaluations and implement monitoring systems to provide us with knowledge, helping policymakers to decide which policies to keep in the future and which to discontinue (Gertler et al., 2016). According to Storey (1990), the deciding mechanism should follow an economic principle that the marginal costs of these policies should be equal to the impact of the policies times a constant. Adopting this rule, which implies many challenging aspects of operationalizations and quantifications, would ensure budget-related cost efficiency.

Nevertheless, each policy needs to be evaluated concerning accomplishing its goals within the target group. Female entrepreneurship-promoting policies can be thus gender-neutral per se and, therefore aim at the general population or be specifically dedicated to them. The latter type often focuses on enhancing women's entrepreneurial confidence and self-efficacy, helping them overcome the fear of failure and delivering entrepreneurial skills through training to improve their chances of successfully running and managing their businesses (Martínez-Rodríguez et al., 2022; Terjesen et al., 2016a, b). The established literature also agrees on significant moderating effects (often adverse) regarding the role of cultural, family or religious institutions, especially in some developing countries where women are restricted from owning property or a business (Leitch et al., 2018).

Therefore, another type of female entrepreneurship policy attempts to reinforce their rights, promote entrepreneurship as an equal career choice irrespective of gender, and enhance the quality of the overall institutional framework and entrepreneurial ecosystem. The respective policy actions include public sharing of successful success stories of women entrepreneurs or establishment of women's thematical discussion platforms/clubs allowing women to share good practices and experiences and to discuss the critical aspects of becoming an entrepreneur, such as combining work and family life (Berger & Kuckertz, 2016; Foss et al., 2019; Mitra & Basit, 2021).

Furthermore, the policies supporting women's entrepreneurship often address the lack of financial capital, which is, besides the fear of failure, the most frequent reason discouraging women from starting their own businesses. To overcome this barrier, public policymakers provide financial resources through microfinance networks, direct capital payments, i.e., start-up grants or subsidised financial instruments such as loans or credit guarantees (Ahmad & Muhammad Arif, 2015; Coleman et al., 2019; Mahmood, 2011; Šebestová et al., 2018; Witbooi & Ukpere, 2011).

Although each policy needs to be assessed separately, we benefit from the systematic literature surveys helping us to form expectations from the accumulated knowledge. According to the published reviews by Terjesen et al. (2016b) and Foss et al. (2019), female entrepreneurs have higher levels of education compared to males, they operate most frequently in the services industry, their businesses are usually smaller, their aspirations to grow decent, and the main motivations are rather non-monetary.

All these pieces of information, put together, allow us to develop a testable hypothesis assuming that the public aid allocated to the supported individuals within the programme is expected to impact the establishment of their businesses positively (by following a resource-based view approach to entrepreneurship, c. f. Backman et al., 2017) but assumed to have different effects conditioned to the gender of the business founders. The hypothesis is formally stated as follows:

Tested hypotheses: The Effects of the UK start-up policy differ across the gender of the business founder.

Data and sample summary statistics

Gender aspects of the UK entrepreneurial activity

This section aims to provide insights into the gender differences in UK entrepreneurship development with the help of available secondary data. Following established practice in the field (Dvouletý, 2018, 2019; Stenholm et al., 2013), we combine several data sources. We use aggregated data from the Eurostat database, originating from the annual Labour Force Survey (Eurostat, 2023), and add data from the Global Entrepreneurship Monitor – GEM (Global Entrepreneurship Monitor, 2023) to illustrate female-to-male ratios in the UK. The Eurostat data were available from 1983 to 2019, while the GEM only since 2001.

Figure 1 illustrates the overall proportions of the UK self-employed, used as a proxy of the UK's overall entrepreneurship levels, documenting that over the recent decades, the participation of females in self-employment has significantly increased, yet it is still relatively low. The average share of self-employed females was 28% (30% since 2001), which makes it, on average, 3.6 (3.3 since 2001) self-employed males for every self-employed female. When calculating the female-to-male ratios of self-employed, we obtain the average proportion of 38% (43% since 2001), which we compare with the proxy from GEM (n. d.), i.e., total early-stage entrepreneurial activity (TEA) female to male ratio, which was slightly higher 49%, but still not that far given that TEA represents only nascent entrepreneurs and not the established once.

Following the recent trends in the field (Cieślik & Dvouletý, 2019; Cowling et al., 2004; Van Stel et al., 2023), we calculated from Eurostat (2023) data also the female proportions of job creators (those with at least one employee) and solo self-employed. As expected, the proportions of female job creators are even much
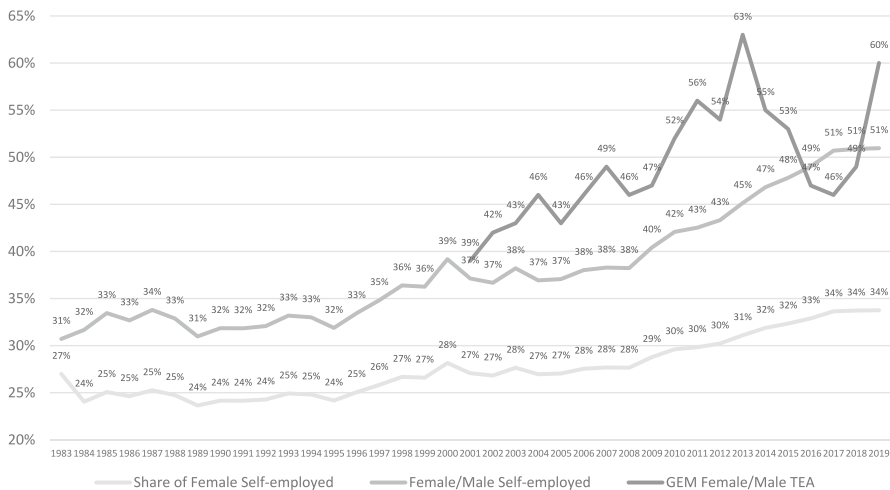
Source: Own calculations based on Eurostat (n. d.) and Global Entrepreneurship Monitor (n. d.) data

Fig. 1 Proportions of Female Entrepreneurship in the UK based on Eurostat and GEM Data

lower, i.e., 24% (26% since 2001), than in solo self-employment, i.e., 28% (31% since 2001). This only adds to the overall picture showing that the gender ratio in UK entrepreneurship is significantly male-dominated.

The start-up loan scheme

The SUL scheme followed a long tradition of UK public policy interventions to support individuals' entry into self-employment and new business start-ups (Meager et al., 2003). It is still operational today, and even through the Covid-19 pandemic, it supported thousands of people to make the transition into entrepreneurship (Cowling & Dvouletý, 2023a, b). The Start-Up Loan (SUL) scheme started in September 2012. Its objective is to promote new business start-ups amongst individuals who were constrained from doing so by a lack of access to capital. The SUL scheme includes the potential to access financial resources through subsidised loans. The maximum amount for the loan is £25,000, with a fixed interest rate of 6%. Repayment is for a minimum term of 1 year and a maximum of 5 years, although repayment holidays are allowed. No arrangement or early repayment fees are charged (British Business Bank, 2020, 2023). Alongside the SUL funding, participants can benefit from cooperation with a business mentor for the first 12 months through an assigned delivery partner. The British Business Bank (2020, 2023), a wholly-owned subsidiary of the Department for Business and Trade, UK Government, formally administers and manages the SUL scheme. Start-ups with the age up to 24 months can be supported by the scheme. Formally, an individual needs to fulfil a condition that all potential market borrowing options are exhausted. This is done through a self-declaration that no further funding is available. British Business Bank pays a fee to the delivery partner for assessing the loan proposal. The procedure consists of a credit check and identification of incidences of financial delinquency, such as prior non-repayment of loans. The provided loan is personal, i.e., it is not tight to the individual's business, and therefore, the delivery partner needs to consider also an individual's fixed monthly outgoings against income to ensure enough free cash is available to service the loan on top of their current commitments. In addition, a general business plan, including cash-flow projections, market analysis, etc., is also evaluated (British Business Bank, 2020, 2023; Cowling & Dvouletý, 2023a, b).

The SUL data

The data is from the scheme records and captures the individual loan records for 98,026 individuals and total lending of £939.5m between 2012 and 2022. It contains complete administrative data of the scheme, obtained from the UK government management's information system records. The data includes 39,161 female new start-ups who borrowed a total of £364.8m and 58,885 male business start-ups who borrowed a total of £592.7m. The lending figures have been adjusted for UK price inflation (via GDP deflator from the UK Government, 2023) so that all values are in 2020 equivalent prices. The data includes personal characteristics such as age, education, gender, and labour market status prior to entry into the SUL scheme. It also

records the loan amount (which we also adjusted for the UK price inflation to 2020 prices) and loan maturity. There is also a geographic identifier for the 11 standard regions of the UK. Finally, it records the date when a loan is issued and the date it was either repaid in full or ended in default. Obviously, some loans are still in their repayment period and have not defaulted but remain not fully repaid at this time. From these data, we are able to calculate time to default, which forms the dependent variable for our hazard estimation.

Sample summary statistics

Here, we present the basic demographics for the entrepreneurs themselves and regarding scheme characteristics such as when they access the scheme and the nature of the loans or grants they took out. Before describing the SUL scheme outcome variables, we consider vital personal demographics, including age, education, and prior labour market status. These statistics and their statistically significant differences obtained from the equality of proportions tests are reported in Table 1.

Table 1 Sample descriptive statistics by gender

| Characteristics/Gender	Males (N=58,865)	Females (N=39,161)	Equality of proportions test results
Age			
18–24	14.31	14.10	
25–30	25.48	26.42	***
31–49	47.18	48.56	***
50+	13.02	10.92	***
Total %	100.00	100.00	
Education			
Basic school	23.62	17.21	***
Vocational	33.22	32.95	
Advanced school	15.03	14.82	
Undergraduate degree	24.97	31.33	***
Post-graduate degree	3.16	3.68	***
Total %	100.00	100.00	
Prior Labour Market State			
Full-time employment	31.64	25.71	***
Part-time employment	5.87	12.49	***
Inactive (including student)	3.94	5.55	***
Early-stage self-employment	31.57	28.45	***
Unemployment	26.98	27.80	***
Total %	100.00	100.00	

Own calculations in STATA, based on the Start-Up Loan (SUL) scheme internal data

*** represents statistical significance at 0.01 level

There are significant differences in gender across all personal demographic characteristics. In relation to individual age, we find that females are slightly more represented in the 25–30 and 31–49 age groups and under-represented in the 50+ age group. This suggests that starting one's own business is, for women, a positive career choice at ages when they have accumulated informal life skills and networks and have the opportunity to build and grow a business, as noted in the scholarly literature (Junquera, 2011; Yadav & Unni, 2016). Regarding formal education per se, we find some clear evidence that female start-ups are disproportionately more drawn from the graduate (and postgraduate) end of the educational spectrum. In short, they are very highly educated. Taken together, female start-ups entering SUL have significant informal and formal human capital, which is, on average, higher than their male peers. At the same time, we acknowledge the limitations of formal education as a proxy of human capital described by Van der Sluis et al. (2008) or Martin et al. (2013).

Regarding the labour market status at the point of business start-up and SUL entry, we find strong evidence that the pathways into business start-ups are very different when considering the gender dimension. Males enter in significant numbers from full-time employment (31.6% compared to 25.7% of females) and early-stage self-employment. The latter implies that they are formalising their activity. This contrasts with females who are more than two times more likely to enter from part-time employment (12.5% compared to 5.9% of females) and inactivity or non-market states (5.6% compared to 3.9% of females). This evidence suggests that participating female entrepreneurs choose business start-ups as a positive career pathway that offers them a full-time activity with the greater flexibility that running one's own business can offer (Birley, 1989; Cullen, 2020).

Figure 2 shows the time-series variation in female SUL scheme entries from 2012 to 2022 with a fitted linear trend line. The key feature is that the trend line shows
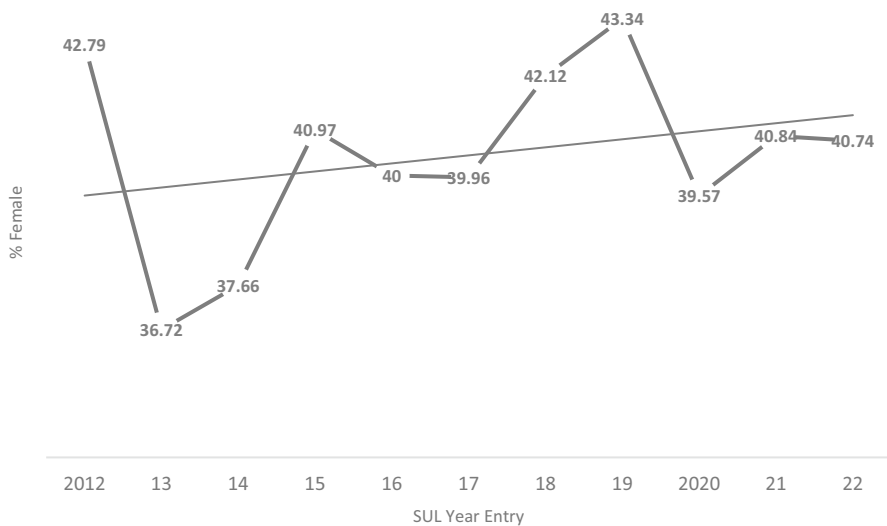
Source: Own calculations in STATA, based on the Start-Up Loan (SUL) scheme internal data

Fig. 2 Female share of SUL entry, years 2012–2022

increasing female representation over time, despite some significant annual deviations. We note that in 2020, the first year of the Covid-19 pandemic (Dvouletý et al., 2021) in the UK, female representation in SUL fell to 39.6% after reaching an all-time high of 43.3% in 2019. As the UK economy slowly emerges from the pandemic, female representation in SUL has stabilised around 40.7% – 40.8%. Again, this is higher compared to the UK business population. If we just compare the years 2012–2019, for which we have Eurostat (2023) data, we see that the average SUL representation was, on average, 40%, while the share of females in the UK overall self-employment was for the same years only 32%.

Table 2 reports the specific loan contract features by gender. It also documents their significant differences based on the paired t-tests results. We observe that males take out larger loans on average, and the average difference is £1,214.83, which is 13.7% larger than the average female SUL loan. This is consistent with previous empirical evidence that finds that females are more constrained in access to finance (Carter et al., 2007; Kwong et al., 2012; Leitch et al., 2018). They tend to use and borrow smaller amounts of capital to start up (Sena et al., 2012; Verheul & Thurik, 2001) and even when they have established businesses (Cowling et al., 2020; Galli et al., 2020). There are quantifiably modest differences in loan maturity months, and females, on average, borrow over shorter periods, but only around two weeks shorter. In terms of loan outcomes, our data clearly shows that female SUL borrowers have lower average default rates, and the difference is around 5.9%, which is substantial. When loans are not fully repaid and end in default, female loans, on average, default at a later stage during the loan repayment period, which is extended by 1.5 months on average. This implies that even in default, the balance of the unpaid loan is proportionately smaller for female borrowers.

To summarise our basic findings on gender, we have observed some very clear points of difference. Female start-ups participating in the SUL scheme are better educated and have significant life experience but choose to start their own businesses at an age when they can build and grow their businesses. They have very distinct pathways

Table 2 SUL loan characteristics by gender

Indicator/Gender	Males (N = 58,865)	Females (N = 39,161)	Paired t-tests significance results
Real Loan Amount (£s)	10,069.43	8,854.60	***
Standard deviation	7,171.27	6,873.08	
Loan Maturity (Months)	52.42	52.01	***
Standard deviation	13.18	13.52	
Default (%)	40.46	34.57	***
Standard deviation	0.49	0.48	
Months to Default (Months)	23.26	24.73	***
Standard deviation	14.38	14.41	

Own calculations in STATA, based on the Start-Up Loan (SUL) scheme internal data

*** represents statistical significance at 0.01 level

into new start-ups, with entry from part-time employment and non-market states being particularly high compared to males. The time-series trend shows that female representation on SUL has increased over the decade since its inception in 2012. The general level of female representation is significantly higher than the respective shares of the general start-up and established business populations in the UK. In terms of SUL lending, females borrow less over slightly shorter periods and, importantly, are less likely to default on their loans, and if they do, they do so later in the life of their loans. On balance, our evidence thus far suggests that SUL has been favourable to female entrepreneurs in terms of attracting them to the scheme and that they have performed exceptionally well compared to their male peers in terms of outcomes.

Analysis and results

This section presents the methodology of our survival and default analyses and then the statistical modelling results. Our objective is to explore the loan default and its time dimension, specifically the default timing (calculated from the loan origination to either full repayment or default) with a remaining and unpaid loan balance. The information about the loan default is available in the SUL scheme management information system. It is a loan for which the account is closed and for which there is an unpaid amount of the loan, which basically means that the loan is no longer "live", i.e. no longer being paid, and there is a remaining amount of the loan to be paid. We use the recorded date of this event to quantify how long it took to close the defaulting loan account to its full term (in days). The maximum duration of the loan was six years. As we were about to monitor the defaults and loan full repayments until the last available data, we had to restrict our empirical analysis on the loans originating before 2017. If the loan was successfully repaid, then the loan term days were equal to the repayment days. This approach is common for studying loan repayments and estimating hazard functions (Lambrecht et al., 1997).

We model the default hazard by estimating Cox proportional hazard models, controlled for a set of individual and loan characteristics (Chang et al., 2016; Sanchez-Riofrio et al., 2023). This model specification was frequently adopted in studies researching new firm survival rates (see, for example, Van Praag, 2003; Simón-Moya et al., 2016; Hechavarría et al., 2016) and also in the research evaluating the effects of public loan schemes (see, for example, Caselli et al., 2021 or Feyen et al., 2021). The dependent variable of our estimated Cox proportional hazard models captures the individual loan time (in days) from its origination date and continues until its default date. If the loan did not default by the end of its term, it was considered repaid, and the entrepreneur was surviving.

We denote the hazard function h(t). The survival time t is measured at the time of the risk default. As already explained, we determine our hazard function h(t) by a set of covariates (vectors X_k, S_k, J_k, and W_k) and the corresponding coefficients α_k, which measure the effect of this set of covariates on survival time. Subscript I represents each individual firm loan contract, and j represents time (Chang et al., 2016; Lambrecht et al., 1997).

$$H(t) = H0(t) \; * \; \exp \{ \; \delta_i + k = 1K_k X_{kij-1} + k = 1K_k \; S_{ki} + Z_{kj} + J_{ik} + W_{kij} + \varepsilon_i \}$$

(1)

Given our interest in the survival differences across the genders, we include a key female-male dummy variable, which delivers information about the gender effects. The vector X_k represents our personal and firm demographics (education, age, and geographic region). All of these characteristics have been found to be important in determining firm survival and loan default based on the existing literature (Fotopoulos & Louri, 2000; Josefy et al., 2017). The vector S_k represents loan contract variables. Vector Z captures fixed time effects.

We estimate a baseline hazard model in Stata software on the sample of pre-2017 loans totalling 44,225 individual loan records. Our estimated hazard models include all variables presented in Tables 1 and 2 and in addition, a set of dummy variables representing geographic regions of the UK. Figure 3 shows the general patterns and dynamics of survival by gender.

Here, we observe that at all points in the loan term beyond the first 200 days, females survive more, conditional upon not defaulting in the previous time period. The gender survival gap is fairly stable and consistent after the first two years of the loan from its origination. We also observe that default is most likely for both genders during the first two years of the loan. This is consistent with empirical evidence on general start-up survival dynamics, which tend to peak within 1.5 to 2.5 years after start-up. It also suggests that for each year after the start-up that a new business survives, the probability of failing in the next period diminishes, which is consistent with a liability of newness (Disney et al., 2003; Burke et al., 2008; Cafferata et al., 2009; Wiklund et al., 2010).
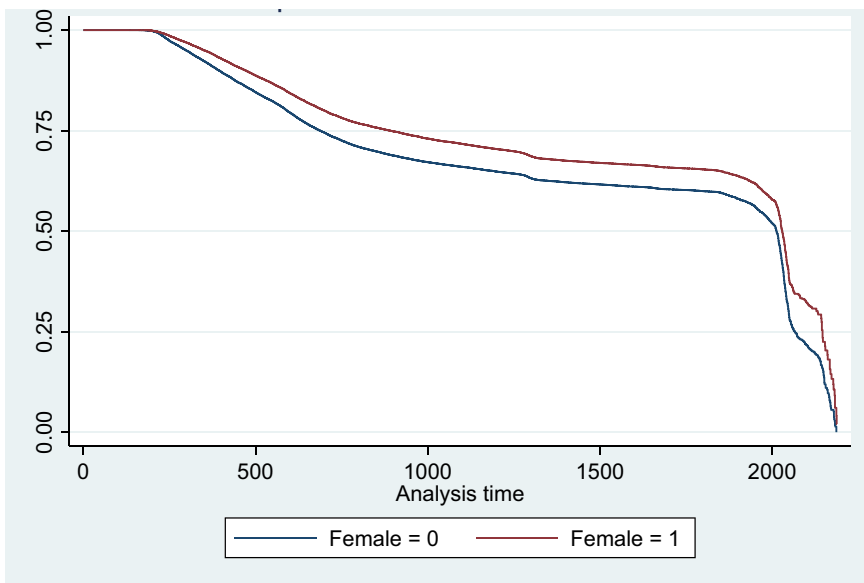
Source: Own calculations in STATA, based on the Start-Up Loan (SUL) scheme internal data

Fig. 3 Kaplan–Meier survival rates by gender – days from loan origination

Table 3 presents the obtained estimates, reported as Hazard ratios. Our first model (Model 1 in Table 3) shows that females participating in the SUL scheme do have a lower hazard rate. The coefficient implies that the female hazard rate is of the order of 17.3% lower and is highly significant. In this respect, female SUL scheme participants have better outcomes and lower failure rates. On education, we find that hazard rates diminish the higher the level of education. Post-graduate degree-level qualifications are associated with a 55.7% lower hazard, and Undergraduate degree-level qualifications have a 34.3% lower hazard. As female entrants are more highly educated, this will increase their survival rates. Pathways into SUL start-ups are also significant. We find that previously unemployed individuals had a 53.2% higher hazard and those entering from part-time employment a 41.9% higher hazard. We also find that entry from unemployment increases hazard more than entry from an inactive or non-market state, and this is consistent with recent German evidence from Caliendo et al. (2023). The clearest entry pathway for increasing survival is full-time employment (baseline category). Loan contract parameters also influenced hazard rates, and larger (real) loan amounts increased the probability of failure. The opposite was true for longer-maturity loans, which reduced hazard rates. The latter finding is consistent with the capital and interest repayment per period being lower and requiring less free cash flow to service.

We then separated our hazard modelling by gender and estimated separate models for male and female SUL scheme participants. Here, we find some differentiating characteristics that shape and influence hazards across male and female start-ups. Specifically, the decline in hazard rates for female start-ups as we progress upwards through the age classes is consistent of greater magnitude. For example, females over the age of 50 have a 25.8% lower hazard than a female under the age of 25, whereas, for males, the equivalent decline in hazard is only 17.0%. On education, we find that moving from a basic school education into the next two levels has a stronger hazard-reducing effect for males. For females, Post-graduate education reduces hazard rates by 3.7% more than for males. Pathways into new start-ups also had a differential impact for males and females. On this, we find that hazard rates for males entering from all states apart from (and compared to) full-time employment are higher than for females. Routes into start-up matter for both, but more for males.

How much one borrows is also an increased hazard, but only for females. In this sense, the lower capitalisation of female start-ups may be a positive feature of female start-ups. As with our general model, longer loan maturity reduces hazard rates, and the female effect is stronger than the male effect. Overall, for female start-ups, borrowing less over a longer time period will increase survival significantly. Finally, we observe that geography was important in the determination of survival and hazard. Start-ups in London, the North West, and the West Midlands, regardless of gender, had the highest hazard rates. For males, this was also true for start-ups from Northern Ireland. In contrast, hazard rates in Wales were significantly lower for males and females.

Table 3 Estimated Hazard Models

	[Model 1] Full Sample			[Model 2] Males Only			[Model 3] Females Only		
	Hazard Ratio	S.E	Pr >|z|	Hazard Ratio	S.E	Pr >|z|	Hazard Ratio	S.E	Pr >|z|
Female	0.8270***	0.0113	0.000						
Age Group									
18–24									
25–30	0.9899	0.0187	0.590	1.0198	0.0241	0.408	0.9357**	0.0293	0.034
31–49	0.8665***	0.0162	0.000	0.9145***	0.0213	0.000	0.7788***	0.0243	0.000
50+	0.8043***	0.0207	0.000	0.8295***	0.0260	0.000	0.7417***	0.0337	0.000
Education									
Basic school									
Vocational	0.8741***	0.0153	0.000	0.8782***	0.0188	0.000	0.8677***	0.0267	0.000
Advanced school	0.8756***	0.0179	0.000	0.8616***	0.0219	0.000	0.9039***	0.0316	0.004
Undergraduate degree	0.6571***	0.0133	0.000	0.6502***	0.0165	0.000	0.6677***	0.0227	0.000
Post-graduate degree	0.4428***	0.0199	0.000	0.4577***	0.0261	0.000	0.4211***	0.0309	0.000
Prior Labour Market Status									
Full-time employment									
Part-time employment	1.4189***	0.0389	0.000	1.4869***	0.0532	0.000	1.2917***	0.0555	0.000
Inactive (including student)	1.3244***	0.0472	0.000	1.3607***	0.0604	0.000	1.2464***	0.0748	0.000
Early stage self-employment	1.1328***	0.0238	0.000	1.1533***	0.0298	0.000	1.0908**	0.0393	0.016
Unemployed	1.5318***	0.0312	0.000	1.5755***	0.0400	0.000	1.4208***	0.0486	0.000
ln Real Loan Amount £s	1.0514***	0.0114	0.000	1.0114	0.0140	0.412	1.1196***	0.0196	0.000
ln Loan Term Months	0.4779***	0.0132	0.000	0.4936***	0.0169	0.000	0.4469***	0.0211	0.000
Region									
East Midlands									
East of England	1.0493	0.0396	0.202	1.0443	0.0490	0.355	1.0644	0.0678	0.327

Table 3 (continued)

	[Model 1] Full Sample			[Model 2] Males Only			[Model 3] Females Only		
	Hazard Ratio	S.E	Pr >|z|	Hazard Ratio	S.E	Pr >|z|	Hazard Ratio	S.E	Pr >|z|
London	1.3134***	0.0403	0.000	1.2854***	0.0495	0.000	1.3691***	0.0696	0.000
North East	1.0553	0.0418	0.175	1.0571	0.0519	0.258	1.0433	0.0703	0.529
North West	1.2611***	0.0418	0.000	1.2283***	0.0506	0.000	1.3242***	0.0740	0.000
Northern Ireland	1.1903***	0.0730	0.004	1.1878**	0.0884	0.021	1.1672	0.1267	0.155
Scotland	1.0497	0.0418	0.223	1.0842*	0.0532	0.099	0.9807	0.0670	0.775
South East	1.0446	0.0378	0.227	1.0357	0.0465	0.434	1.0712	0.0655	0.261
South West	1.0265	0.0375	0.475	1.0089	0.0460	0.846	1.0601	0.0651	0.342
Wales	0.8345***	0.0399	0.000	0.8612***	0.0503	0.010	0.7790***	0.0651	0.003
West Midlands	1.1668***	0.0413	0.000	1.1306***	0.0501	0.006	1.2437***	0.0733	0.000
Yorkshire and The Humber	0.9897	0.0366	0.780	0.9738	0.0448	0.564	1.0190	0.0634	0.762
Number of Observations	43,341			26,585			16,756		
Failures	23,701			15,209			8,492		
Prob> χ^2	0.00001			0.00001			0.00001		

The estimated coefficients are presented as Hazard ratios

Own calculations in STATA, based on the Start-Up Loan (SUL) scheme internal data

* represents statistical significance at 0.1 level

** represents statistical significance at 0.05 level

*** represents statistical significance at 0.01 level

Conclusions

This article provides insights and contributions to the body of knowledge on public policies supporting entrepreneurship and SMEs, specifically targeting females (Martínez-Rodríguez et al., 2022; Terjesen et al., 2016a, b). We set out to investigate whether a widely available, gender-neutral, national business start-up scheme, the Start-Up Loan (SUL) scheme, actually delivered different outcomes for male and female start-up entrepreneurs. In short, given a common supply of support, did a greater female representation occur as would be predicted if females faced more significant barriers to start-up? Using an extensive data set for a flagship scheme running from 2012 and with records up to 2022, we found some solid evidence that the SUL scheme was capable of attracting a disproportionately high share of female start-up entrepreneurs. The SUL entry rate for females was higher than its share among the UK-established business population. To the best of our knowledge, this is the highest female representation on any widely available and targeted UK small business policy intervention in living memory. Further, the trend for female scheme participation has been upward over the decade.

Regarding what types of female entrepreneurs accessed the SUL scheme, we find that they were highly educated and more so than their male peers, which is in line with the general knowledge of female entrepreneurship (Foss et al., 2019; Jennings & Brush, 2013; McClelland et al., 2005; Terjesen et al., 2016b). They also entered the scheme through different pathways with higher entry rates from part-time employment and from inactivity and non-market statuses. They appear to be at a stage in their lives where the transition into business start-ups allows them to build and grow a business and create sustainable and full-time work. In terms of the most basic question, whether the SUL scheme delivers good outcomes for its female participants, our evidence strongly suggests that this is the case, as females had a 17.3% higher survival rate than their male peers, supporting us empirically our tested hypothesis, assuming that there are significant gender differences concerning the effects of the public policy promoting entrepreneurship. If we could profile the female entrepreneurs who derived the greatest benefit from the SUL scheme, they would be well-educated, older, and entering full-time employment or early-stage self-employment. They would also borrow modestly and take out longer-term loans to reduce the cash flow pressure on repayments. Combining their new entrepreneurship career with personal loans also suggests that the supported entrepreneurs within the scheme managed to survive economically, although we cannot derive any recommendations regarding the growth of their business in terms of sales, productivity or number of employees that often of interest to policymakers (OECD, 2023) and scholarly community (Cowling & Dvouletý, 2023a, b; Karlan & Zinman, 2011; Sanchez-Riofrio et al., 2023; Srhoj et al., 2021). However, these limitations need to be perceived as a trade-off between surveying a limited number of supported individuals and having administrative data for the full population of the SUL recipients. Conducting a primary survey among the supported individuals is definitely a recommendation for future research.

To respond to a recent question asked by Henry et al. (2022b), "To what extent does policy influence gender differences in the scale and nature of entrepreneurship

activity?", our evidence for the UK SUL scheme is strong in that it clearly suggests that a carefully designed scheme that provides financial and the offer of soft support to facilitate the transition into new business start-up has delivered for female entrepreneurs both in terms of the number of females that have accessed the scheme and in terms of their outcomes. Importantly, the SUL scheme is gender-neutral in its design and conception but not in its participation and impact. Formally said, we found empirical support for our hypothesis, suggesting that the policy effects differ across the gender of the business founder. Thus, a well-focused scheme that aims to help new start-ups get up and run will naturally attract those who face the most significant barriers to starting their own business. The only recommendation that might lead to an overall increase in females participating in the SUL scheme would be according to accumulated knowledge (Terell & Troilo, 2010; Byrne et al., 2019; Dvouletý et al., 2022), sharing the examples of women, who successfully transited to an independent career pathway, within the female-based professional platforms and associations, such as UK Women Business Club (2023) or the British Association of Women Entrepreneurs (2023). This would, even more, promote experience sharing and discussing challenging aspects of business start-ups among women. However, suppose we would like to know which of the policy actions would be more cost-efficient (Storey, 1990). In that case, we propose future researchers and policymakers cooperate on launching experimental programmes within the methodological boundaries of randomized control trial (RCT), assigning supported females into two different programmes, one general in its nature, i.e., gender neutral and another one, specifically dedicated to women and their needs. RCTs are, however, very difficult to run politically, yet there are some emerging examples to follow, such as the one experience provided by Ungerer et al. (2019), which could serve as an inspiration for policymakers and research community to jointly establish such programmes, in order to enhance entrepreneurship and SME policy effectiveness.

References

Ahmad, S. Z., & Muhammad Arif, A. M. (2015). Strengthening access to finance for women-owned SMEs in developing countries. *Equality, Diversity and Inclusion: An International Journal, 34*(7), 634–639. https://doi.org/10.1108/EDI-11-2012-0104

Backman, C. A., Verbeke, A., & Schulz, R. A. (2017). The drivers of corporate climate change strategies and public policy: A new resource-based view perspective. *Business & Society, 56*(4), 545–575. https://doi.org/10.1177/0007650315578450

Berger, E. S., & Kuckertz, A. (2016). Female entrepreneurship in startup ecosystems worldwide. *Journal of Business Research, 69*(11), 5163–5168. https://doi.org/10.1016/j.jbusres.2016.04.098

Bergström, O., & Styhre, A. (2022). It takes change to remain the same: The transformation of Swedish government policy making in economic crises and the involvement of social partners. *Economic and Industrial Democracy, 43*(4), 1564–1587. https://doi.org/10.1177/0143831X211020801

Birley, S. (1989). Female Entrepreneurs: Are They Really Any Different? *Journal of Small Business Management, 27*(1), 32–37.

Bodur Ün, M., & Arıkan, H. (2022). Europeanization and De-Europeanization of Turkey's Gender Equality Policy: The Case of the Istanbul Convention. *JCMS: Journal of Common Market Studies*, *60*(4), 945–962. https://doi.org/10.1111/jcms.13292

British Business Bank. (2020). *British Business Bank Start Up Loans Programme*. Available from: https://www.british-business-bank.co.uk/ourpartners/start-up-loans/. Accessed on 17th Apr 2023.

British Business Bank. (2023). *Start Up Loans: Start or grow your own business*. Available from: https://www.startuploans.co.uk/?_ga=2.117639823.744912651.1681720035-1033809256.1681720035. Accessed on 17th Apr 2023.

British Association of Women Entrepreneurs. (2023). *Who are the British Association of Women Entrepreneurs?*. Available from: https://www.bawe-uk.org/about-us/. Accessed on 17th Apr 2023.

Burke, A., Görg, H., & Hanley, A. (2008). The impact of foreign direct investment on new firm survival in the UK: Evidence for static versus dynamic industries. *Small Business Economics, 4*(31), 395–407. https://doi.org/10.1007/s11187-007-9065-y

Byrne, J., Fattoum, S., & Diaz Garcia, M. C. (2019). Role models and women entrepreneurs: Entrepreneurial superwoman has her say. *Journal of Small Business Management, 57*(1), 154–184.

Cafferata, R., Abatecola, G., & Poggesi, S. (2009). Revisiting Stinchcombe's' liability of newness': A systematic literature review. *International Journal of Globalisation and Small Business, 3*(4), 374–392. https://doi.org/10.1111/jsbm.12426

Caliendo, M., Kritikos, A. S., & Stier, C. (2023). The influence of start-up motivation on entrepreneurial performance. *Small Business Economics*, 1–21. (online first). https://doi.org/10.1007/s11187-022-00722-6

Carter, S., Shaw, E., Lam, W., & Wilson, F. (2007). Gender, entrepreneurship, and bank lending: The criteria and processes used by bank loan officers in assessing applications. *Entrepreneurship Theory and Practice, 31*(3), 427–444. https://doi.org/10.1111/j.1540-6520.2007.00181.x

Caselli, S., Corbetta, G., Cucinelli, D., & Rossolini, M. (2021). A survival analysis of public guaranteed loans: Does financial intermediary matter?. *Journal of Financial Stability*, *54*, 100880.

Chang, Y. C., Chang, K. H., Chu, H. H., & Tong, L. I. (2016). Establishing decision tree-based short-term default credit risk assessment models. *Communications in Statistics-Theory and Methods, 45*(23), 6803–6815. https://doi.org/10.1080/03610926.2014.968730

Cieślik, J., & Dvouletý, O. (2019). Segmentation of the Population of the Solo Self-employed. *International Review of Entrepreneurship, 17*(3), 281–304.

Coad, A., & Tamvada, J. P. (2012). Firm growth and barriers to growth among small firms in India. *Small Business Economics, 39*, 383–400. https://doi.org/10.1007/s11187-011-9318-7

Coleman, S., Henry, C., Orser, B., Foss, L., & Welter, F. (2019). Policy support for women entrepreneurs' access to financial capital: Evidence from Canada, Germany, Ireland, Norway, and the United States. *Journal of Small Business Management, 57*(S2), 296–322. https://doi.org/10.1111/jsbm.12473

Cowling, M. (2010). The role of loan guarantee schemes in alleviating credit rationing in the UK. *Journal of Financial Stability, 6*(1), 36–44. https://doi.org/10.1016/j.jfs.2009.05.007

Cowling, M., & Dvouletý, O. (2023a). UK government-backed start-up loans: Tackling disadvantage and credit rationing of new entrepreneurs. *International Small Business Journal, 41*(7), 714–733. https://doi.org/10.1177/02662426221124733

Cowling, M., & Dvouletý, O. (2023b). Who is brave enough to start a new business during the Covid-19 pandemic? *Baltic Journal of Management, 18*(3), 402–419. https://doi.org/10.1108/BJM-11-2022-0414

Cowling, M., Marlow, S., & Liu, W. (2020). Gender and bank lending after the global financial crisis: Are women entrepreneurs safer bets? *Small Business Economics, 55*, 853–880. https://doi.org/10.1007/s11187-019-00168-3

Cowling, M., & Taylor, M. (2001). Entrepreneurial women and men: two different species?. *Small Business Economics*, *16*, 167–175.

Cowling, M., Taylor, M., & Mitchell, P. (2004). Job creators. *The Manchester School, 72*(5), 601–617. https://doi.org/10.1111/j.1467-9957.2004.00411.x

Cullen, U. (2020). Sociocultural factors as determinants of female entrepreneurs' business strategies. *Journal of Entrepreneurship in Emerging Economies, 12*(1), 144–167. https://doi.org/10.1108/JEEE-04-2019-0046

Curran, J. (2000). What is small business policy in the UK for? Evaluation and assessing small business policies. *International Small Business Journal, 18*(3), 36–50. https://doi.org/10.1177/0266242600183002

Disney, R., Haskel, J., & Heden, Y. (2003). Entry, exit and establishment survival in UK manufacturing. *Journal of Industrial Economics, 51*(1), 91–112. https://doi.org/10.1111/1467-6451.00193

Dvouletý, O. (2018). How to analyse determinants of entrepreneurship and self-employment at the country level? A methodological contribution. *Journal of Business Venturing Insights*, *9*(C), 92–99. https://doi.org/10.1016/j.jbvi.2018.03.002

Dvouletý, O., Šebestová, J. D., Svobodová, I., Habrmanová, B., & Müllerová, J. (2022). Analyzing determinants influencing female entrepreneurship engagement in the Czech Republic: What is the role of caring responsibilities. *World Journal of Entrepreneurship, Management and Sustainable Development*, *18*(1), 1–19. https://doi.org/10.47556/J.WJEMSD.18.1.2022.1

Dvouletý, O. (2019). Development of entrepreneurial activity in the Czech Republic over the years 2005–2017. *Journal of Open Innovation: Technology, Market, and Complexity, 5*(3), 38. https://doi.org/10.3390/joitmc5030038

Dvouletý, O., De Arroyabe, F., Fernandez, J. C., & Mustafa, M. (2021). Entrepreneurship during the times of COVID-19 pandemic: Challenges and consequences. *Journal of Entrepreneurship in Emerging Economies, 13*(4), 489–496. https://doi.org/10.1108/JEEE-09-2021-461

Engeman, C., & Burman, S. (2022). Signs of the gender revolution's second phase? Historical and cross-national development of fathers' leave provisions. *Social Policy & Administration, 57*(5), 626–641. https://doi.org/10.1111/spol.12882

European Commission. (2012). *Entrepreneurship 2020 Action Plan,* OECD Studies on SMEs and Entrepreneurship. Available from: https://www.eesc.europa.eu/en/our-1work/opinions-information-reports/opinions/entrepreneurship-2020-action-plan. Accessed on 17th Apr 2023.

Eurostat. (2023). *Self-employment by sex, age and educational attainment level (1 000) [LFSA_ESGAED__custom_5815781].* Available from: https://ec.europa.eu/eurostat/databrowser/view/LFSA_ESGAED__custom_5815781/default/table. Accessed on 17th Apr 2023.

Feyen, E., Gispert, T. A., Kliatskova, T., & Mare, D. S. (2021). Financial sector policy response to COVID-19 in emerging markets and developing economies. *Journal of Banking & Finance, 133*, 106184. https://doi.org/10.1016/j.jbankfin.2021.106184

Fielden, S. L., Dawe, A. J., & Woolnough, H. (2006). UK government small business finance initiatives: Social inclusion or gender discrimination? *Equal Opportunities International, 25*(1), 25–37. https://doi.org/10.1108/02610150610645940

Filandri, M., Pasqua, S., & Priori, E. (2023). Breaking through the glass ceiling. Simulating policies to close the gender gap in the Italian academia. *Socio-Economic Planning Sciences*, *88*, 101655. https://doi.org/10.1016/j.seps.2023.101655

Foss, L., Henry, C., Ahl, H., & Mikalsen, G. H. (2019). Women's entrepreneurship policy research: A 30-year review of the evidence. *Small Business Economics, 53*(2), 409–429. https://doi.org/10.1007/s11187-018-9993-8

Fotopoulos, G., & Louri, H. (2000). Location and Survival of New Entry. *Small Business Economics, 14*(4), 311–321. https://doi.org/10.1023/A:1008180522759

Galli, E., Mascia, D. V., & Rossi, S. P. (2020). Bank credit constraints for women-led SMEs: Self-restraint or lender bias? *European Financial Management, 26*(4), 1147–1188. https://doi.org/10.1111/eufm.12255

Gertler, P. J., Martinez, S., Premand, P., Rawlings, L. B., & Vermeersch, C. M. (2016). *Impact evaluation in practice*. The World Bank, Washington, United States.

Global Entrepreneurship Monitor. (2023). *Entrepreneurial Behaviours and Attitudes*. Available from: https://www.gemconsortium.org/data/key-aps. Accessed on 17th Apr 2023.

Hechavarría, D., Matthews, C., & Reynolds, P. (2016). Does start-up financing influence start-up speed? Evidence from the panel study of entrepreneurial dynamics. *Small Business Economics, 46*(1), 137–167. https://doi.org/10.1007/s11187-015-9680-y

Henry, C., Ballantine, J., Dejardin, M., & Křížková, A. (2022b). *Exploring Entrepreneurship Policy in a Global Context: A gender perspective*. Available from: https://www.emeraldgrouppublishing.com/calls-for-papers/exploring-entrepreneurship-policy-a-global-context-a-gender-perspective . Accessed on 17th Apr 2023.

Henry, C., Coleman, S., Orser, B., & Foss, L. (2022a). Women's entrepreneurship policy and access to financial capital in different countries: An institutional perspective. *Entrepreneurship Research Journal, 12*(3), 227–262. https://doi.org/10.1515/erj-2022-0234

Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature? *Academy of Management Annals, 7*(1), 663–715. https://doi.org/10.1080/19416520.2013.782190

Josefy, M. A., Harrison, J. S., Sirmon, D. G., & Carnes, C. (2017). Living and dying: Synthesizing the literature on firm survival and failure across stages of development. *Academy of Management Annals, 11*(2), 770–799. https://doi.org/10.5465/annals.2015.0148

Junquera, B. (2011). Where does female entrepreneurial human capital come from? A review of the literature. *Innovation: Organization & Management*, *13*(3), 391–411. https://doi.org/10.5172/impp.2011.13.3.391

Jurik, N. C., Křížková, A., Pospíšilová, M., & Cavender, G. (2023). Institutional work in Czech and US business assistance programmes and implications for entrepreneurial inclusion. In C. Henry, S. Coleman, & K. V. Lewis (Eds.), *Women's Entrepreneurship Policy: A Global Perspective* (pp. 125–163). Edward Elgar Publishing.

Karlan, D., & Zinman, J. (2011). Microcredit in theory and practice: Using randomized credit scoring for impact evaluation. *Science, 332*(6035), 1278–1284. https://doi.org/10.1126/science.1200138

Kitching, J. (2015). Tracking UK freelance workforce trends 1992–2015. *International Review of Entrepreneurship, 13*(1), 21–34.

Kwong, C., Jones-Evans, D., & Thompson, P. (2012). Differences in perceptions of access to finance between potential male and female entrepreneurs: Evidence from the UK. *International Journal of Entrepreneurial Behaviour & Research, 18*(1), 75–97. https://doi.org/10.1108/13552551211201385

Lambrecht, B., Perraudin, W., & Satchell, S. (1997). Time to default in the UK mortgage market. *Economic Modelling, 14*(4), 485–499. https://doi.org/10.1016/S0264-9993(97)00003-5

Lehmann, H. (1993). *The effectiveness of the restart programme and enterprise allowance scheme* (No. dp0139). Centre for Economic Performance, London School of Economics, London, United Kingdom.

Leitch, C., Welter, F., & Henry, C. (2018). Women entrepreneurs' financing revisited: Taking stock and looking forward: New perspectives on women entrepreneurs and finance. *Venture Capital, 20*(2), 103–114.

Mahmood, S. (2011). Microfinance and women entrepreneurs in Pakistan. *International Journal of Gender and Entrepreneurship, 3*(3), 265–274. https://doi.org/10.1080/13691066.2018.1418624

Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing, 28*(2), 211–224. https://doi.org/10.1016/j.jbusvent.2012.03.002

Martínez-Rodríguez, I., Quintana-Rojo, C., Gento, P., & Callejas-Albiñana, F. E. (2022). Public policy recommendations for promoting female entrepreneurship in Europe. *International Entrepreneurship and Management Journal, 18*(3), 1235–1262. https://doi.org/10.1007/s11365-021-00751-9

McClelland, E. S., & Bell, J. J. & Ibbotson, P.(2005). Following the pathway of female entrepreneurs. *International Journal of Entrepreneurial Behaviour and Research*, *11*(2), 84–107. https://doi.org/10.1108/13552550510590527

Meager, N., Bates, P., & Cowling, M. (2003). An evaluation of business start-up support for young people. *National Institute Economic Review, 186*(1), 59–72. https://doi.org/10.1177/002795010300100111

Millán, J. M., Congregado, E., & Román, C. (2012). Determinants of self-employment survival in Europe. *Small Business Economics, 38*, 231–258. https://doi.org/10.1007/s11187-010-9260-0

Mitra, J., & Basit, A. (2021). Personal networks and growth aspirations: A case study of second-generation, Muslim, female entrepreneurs. *Small Business Economics, 56*(1), 121–143. https://doi.org/10.1007/s11187-019-00211-3

Neergaard, H., & Thrane, C. (2011). The Nordic Welfare Model: Barrier or facilitator of women's entrepreneurship in Denmark? *International Journal of Gender and Entrepreneurship, 3*(2), 88–104. https://doi.org/10.1108/17566261111140189

OECD. (2023). Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes 2023. *OECD Studies on SMEs and Entrepreneurship, OECD Publishing, Paris.* https://doi.org/10.1787/a4c818d1-en

Ojong, N., Simba, A., & Dana, L. P. (2021). Female entrepreneurship in Africa: A review, trends, and future research directions. *Journal of Business Research, 132*, 233–248. https://doi.org/10.1016/j.jbusres.2021.04.032

Pandey, S. K., Smith, A. E., Pandey, S., & Ojelabi, O. A. (2023). Reimagining race and gender in public administration and public policy: Insights from an interdisciplinary systematic review. *Public Administration Review, 83*(1), 14–34. https://doi.org/10.1111/puar.13570

Roper, S., & Scott, J. M. (2009). Perceived financial barriers and the start-up decision: An econometric analysis of gender differences using GEM data. *International Small Business Journal, 27*(2), 149–171. https://doi.org/10.1177/0266242608100488

Sanchez-Riofrio, A. M., Lupton, N. C., Camino-Mogro, S., & Acosta-Ávila, Á. (2023). Gender-based characteristics of micro, small and medium-sized enterprises in an emerging country: Is this a man's world? *Journal of Entrepreneurship in Emerging Economies, 15*(3), 652–673. https://doi.org/10.1108/JEEE-07-2021-0273

Šebestová, J., Krejčí, P., & Šiška, P. (2018). "Be or not to be": a dilemma of business policy support on a regional level. *Central European Business Review*, *7*(1), 3–13. https://doi.org/10.18267/j.cebr.192

Sena, V., Scott, J., & Roper, S. (2012). Gender, borrowing patterns and self-employment: Some evidence for England. *Small Business Economics, 38*, 467–480. https://doi.org/10.1007/s11187-010-9272-9

Simón-Moya, V., Revuelto-Taboada, L., & Ribeiro-Soriano, D. (2016). Influence of economic crisis on new SME survival: Reality or fiction? *Entrepreneurship & Regional Development, 28*(1–2), 157–176. https://doi.org/10.1080/08985626.2015.1118560

Srhoj, S., Škrinjarić, B., Radas, S., & Walde, J. (2021). Small matching grants for women entrepreneurs: lessons from the past recession. *Small Business Economics*, 1–26. (online first). https://doi.org/10.1007/s11187-021-00524-2.

Stenholm, P., Acs, Z. J., & Wuebker, R. (2013). Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity. *Journal of Business Venturing, 28*(1), 176–193. https://doi.org/10.1016/j.jbusvent.2011.11.002

Stevenson, L., & Lundström, A. (2001). *Patterns and Trends in Entrepreneurship / SME Policy and Practice in Ten Economies*, Stockholm: Swedish Foundation for Small Business Research.

Storey, D. J. (1990). Evaluation of policies and measures to create local employment. *Urban Studies, 27*(5), 669–684. https://doi.org/10.1080/00420989020080651

Syed, Z. A. (2011). Evidence of characteristics of women entrepreneurs in the Kingdom of Saudi Arabia. *International Journal of Entrepreneurial Behaviour and Research, 17*(5), 534–560. https://doi.org/10.1108/17566261111140206

Terjesen, S., Bosma, N., & Stam, E. (2016b). Advancing public policy for high-growth, female, and social entrepreneurs. *Public Administration Review, 76*(2), 230–239. https://doi.org/10.1111/puar.12472

Terjesen, S., Hessels, J., & Li, D. (2016a). Comparative international entrepreneurship: A review and research agenda. *Journal of Management, 42*(1), 299–344. https://doi.org/10.1177/0149206313486259

Terrell, K., & Troilo, M. (2010). Values and female entrepreneurship. *International Journal of Gender and Entrepreneurship, 2*(3), 260–286. https://doi.org/10.1108/17566261011079242

UK Government. (2023). *GDP deflators at market prices, and money GDP March 2023*. Available at: https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-march-2023-quarterly-national-accounts. Accessed on 15th Apr 2023.

Ungerer, C., Heinzelmann, N., Baltes, G. H., & König, M. (2019, June). The Effect of Business Coaching on NTBF Survival–Findings and Lessons Learned from a Randomized Controlled Trial. In Pallot, A., Zarli, A., Razek, A., R., A., Lecossier, A. (Eds.). *2019 IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC)*, 1–10. Available at: https://doi.org/10.1109/ICE.2019.8792604.

Van der Sluis, J., Van Praag, M., & Vijverberg, W. (2008). Education and entrepreneurship selection and performance: A review of the empirical literature. *Journal of Economic Surveys, 22*(5), 795–841.

Van Praag, C. M. (2003). Business survival and success of young small business owners. *Small Business Economics*, 21, 1–17.

Van Stel, A., Barrientos-Marin, J., Caçador-Rodrigues, L., Millan, A., & Millán, J. M. (2023). Measuring performance differentials across entrepreneurship types. *International Entrepreneurship and Management Journal, 19*(3), 981–1016. https://doi.org/10.1111/j.1467-6419.2008.00550.x

Verheul, I., & Thurik, R. (2001). Start-up capital:" does gender matter?". *Small Business Economics, 16*, 329–346. https://doi.org/10.1023/A:1011178629240

Wiklund, J., Baker, T., & Shepherd, D. (2010). The age-effect of financial indicators as buffers against the liability of newness. *Journal of Business Venturing, 25*(4), 423–437. https://doi.org/10.1016/j.jbusvent.2008.10.011

Witbooi, M., & Ukpere, W. (2011). Indigenous female entrepreneurship: Analytical study on access to finance for women entrepreneurs in South Africa. *African Journal of Business Management, 5*(14), 5646–5657. https://doi.org/10.5897/AJBM10.1161

Women's Business Club. (2023). *What is Women's Business Club?*. Available from: https://womensbusiness.club/. Accessed on 17th Apr 2023.

Yadav, V., & Unni, J. (2016). Women entrepreneurship: Research review and future directions. *Journal of Global Entrepreneurship Research, 6*(1), 1–18. https://doi.org/10.1186/s40497-016-0055-x