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Entrepreneurial Learning and the Success of Welsh Businesswomen



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ABSTRACT

This paper reports on a study of women entrepreneurs running MSMEs in South Wales, a region characterised as having a weak entrepreneurial culture compared to other parts of the UK (Fotopoulos and Storey, 2017). One reason for this weakness is perceived to be a lack of entrepreneurship education and in this paper we investigate the hypothesis behind this - that more entrepreneurship education has a positive effect on business success. The investigation consisted of three parts; a set of 59 questions (n=150), followed by a series of face-to-face interviews (n=37), and finally some detailed discussions (n=5). The main finding is that the hypothesis that entrepreneurship education makes a positive contribution to the success of women entrepreneurs needs to be modified to reflect the fact that it is entrepreneurial learning through technologically enabled networks that has such an effect, as it no longer makes sense in the age of social media to separate education from asynchronous networked learning, or to separate the technology from the networking within that learning. The practical implication of this research is that enterprise education courses and programmes designed to support female entrepreneurs need to take better account of the way such women learn. The

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limitation of the research is that the sample is from a relatively technologically enabled population.

KEY WORDS: *women entrepreneurs, female entrepreneurs, entrepreneurship education, entrepreneurial education*

Introduction

Entrepreneurs are an important group to study in connection with learning since the knowledge they acquire and apply makes a major contribution to economic growth and employment (Brush 2000; Minniti 2010; Klapper and Parker 2010). In addition, entrepreneurs are an interesting group to study in this respect as they tend to be highly motivated learners (Sarri 2011; Boeren 2011; Fayolle 2013; Czerkawski 2016; Dixon 2017). One of the things entrepreneurs learn is something that can be described as 'entrepreneurship education' because it is tailored to their needs as entrepreneurs. What exactly this includes will differ by sector and location to some degree, but in today's technologically connected world few would doubt that information and communication technology (ICT), will play some significant part in it. In this paper we show that -in Wales at least- we have now entered a phase in which ICT is effectively used by entrepreneurs to pick and choose what is learnt, where, and how, to such a degree that (with the guidance of networks of their peers) they are most accurately depicted as engineering their own entrepreneurship education. The existing literature on entrepreneurship education is -as with most aspects of enterprise research- typically non-gendered, which means that in practice it mostly concerns what men do, since most entrepreneurs in most parts of the world are men. Things are changing, however, and there is an increasing interest in female entrepreneurs as their numbers and significance grows in many parts of the world (Brush and Cooper 2012). This is, of course, part of a broader trend towards greater gender equality that has the side effect (in this connection), of making women look like a reservoir of enterprise that needs to be tapped, in order to (amongst many other things) increase a country's prosperity, (albeit in part because much of the work women traditionally do only gets measured when it is no longer done for free). It seems an opportune moment, therefore, to help redress this academic imbalance and possibly make some small contribution to the further liberation of this relatively untapped resource by removing any barriers to increased participation by women that may be revealed by this

research, particularly with regard to a country like Wales that has a history of growing more slowly and showing less ‘enterprise’ than its neighbours.

Methodology

Although bodies such as the OECD compile data on the provision of entrepreneurship education for women in different countries partly motivated by the belief that improved provision will increase the output of those countries, in truth the scale of any such effect is unclear. The problem is that there are two main transmission mechanisms through which this effect could happen. First, it could happen through the success of the businesses being run by the entrepreneurship educated women. Second, it could work via the choice a woman makes to become an entrepreneur in the first place. We assume that the combined effect of both mechanisms is enough to make this a profitable investment for any country to make; ‘social rates of return’ studies certainly suggest that investments in education usually are (Psacharopoulos and Patrinos 2018), and if we couple this with the aforementioned idea that women entrepreneurs are an untapped resource it would be a surprise if this wasn’t the case. But the fact is, we just don’t know for sure. One reason for this lack of clarity is that there is little research in connection with the first transmission mechanism –the impact of entrepreneurship education on the success of women entrepreneurs- as although there are plenty of studies showing how best to create and deliver entrepreneurship education (Bhardwaj 2014; Ogidi 2014), and on how well specific courses -or other interventions- are perceived to have worked by those who took them (Rideout and Gray 2013), there is little on the likely scale of its effect, and what there is focuses on whether it works to encourage specific measurable traits, such as the ability to innovate (Maryam *et al.* 2017). There is, by way of contrast, considerable research into how it encourages women to make the choice to become entrepreneurs in the first place (Coduras-Martínez *et al.* 2010; Fatoki 2014; Mohamad *et al.* 2015), and although we would need to look at the opportunity cost of such choices to be sure, few alternatives are likely to have as much impact on output and employment as becoming an entrepreneur even if the resulting firms are short-lived, and there is supporting evidence that they tend not to be as entrepreneurship education seems to provide some protection against early attrition for businesses owned by women (Douglas 2014). There is even some work on how such motivations are affected by

networking (Sharafizad and Coetzer 2017), although what ultimately it does to the success of those who manage to stay in business is rather overlooked. We conclude from this that in a number of respects it is still true to say that there is, “remarkably little empirical or academic research that pertains to effective entrepreneurship education and training for women,” (Bullough *et al.* 2015, 42). Part of the problem is the tendency to equate entrepreneurship education only with the supply of specific programmes of study, which means both that what is being evaluated tends to be something very narrow and also that the proving of any definitive link between the course and the ultimate success of the entrepreneur can involve a significant wait, by which time looking for the effect of the specific entrepreneurship education intervention becomes akin to looking for a needle in a haystack. In fact, even if we shift our focus away from what is supplied onto what women entrepreneurs are currently doing to learn about and improve their enterprise and count that as entrepreneurship education too, testing the scale of the bivariate correlation between this and their success is still problematic as it ignores the fact that the outcome –entrepreneurial success- is a complex one. For one thing this means that any policy advice arising out of any such singular approach would be subject to the problem of the Second Best (Lipsey and Lancaster 1956).

In what follows, therefore, we adopt a multivariate approach to assess what women do to learn about enterprise regardless of what it is, or where it comes from, or how it is accessed, followed by some multiple regression work in order to assess the influence of different factors involved in it and to determine the scale of their impact -both in combination and separately- on the success of our sample of entrepreneurs. This is still a partial approach in the sense that we are not building a general model of the success of women entrepreneurs, but we believe nonetheless that it is an improvement on the current state of the art in this field.

The limited scope and extent of research in this area may simply reflect the fact that research on female entrepreneurship - even more so than entrepreneurship research in general - is relatively new and understandably, therefore, somewhat lagging behind in the kinds of complex methodologies that are likely to be most revealing of a complex compound process like enterprise (Scherrer *et al.* 1989). In the broader field of entrepreneurship studies in general, an appreciation of a similar deficiency in the past led to calls -by the likes of Plaschka and Welsch (1990) - for a shift towards more complex research designs. Such calls have since been heeded by many, with

researchers across the globe collecting and using larger samples and more complex conceptual research frameworks than ever before, a trend which is now spreading into the relatively young subdomain of female entrepreneurship. Not that this development pleases everyone, as authors like Herron, Sapienza, and Smith-Cook (1992) pointed out some time ago, qualitative methods - such as interviews with rich data but small samples - may offer the best way of understanding creative aspects of human behaviour like enterprise, and it is possible that the authors of this paper - who both come from an Economics background - might tend to overlook this in favour of complex quantitative research. Consequently, in recognition of our potential for bias and of the fact that quantification is unlikely to be the best way to get at the richness of meanings and individual experience in this field, we have made a conscious effort to make room for listening and discussions in the design of this research, and generally not to turn a blind eye to the insights of the interpretivist paradigm (Berglund 2015). Another thing we have tried to do is to avoid falling into the trap (that much microeconomic theorising falls into), of forgetting that our subjects cannot be divorced from the context in which they operate, by constantly reminding ourselves of the need for a holistic approach (Bygrave and Hofer 1991), in which we see our entrepreneurs as embedded within a political, economic, social, and -with particular reference to this study- technological, context.

With all this in mind we adopted a mixed method approach with both quantifiable and qualitative data being explored in an iterative manner across three connected parts; first a set of 59 questions, which was answered by 150 women, followed by a second part covering 37 face-to-face interviews, and finally a focus group study of 5 respondents, which was used to enhance and broaden our understanding of specific issues. In terms of research practice we managed to secure relatively high response rates from the start by taking a proactive approach to sample selection, including the taking of great care to make sure that we were sampling the right people, (for example to ensure that we were capturing only those running micro, small, and medium sized enterprises rather than middle managers in larger organisations). This was facilitated by a three-pronged approach to data collection covering emails, telephone follow-ups, and face-to-face interviews. The second and third parts of the study were designed to spark discussion, while the first part includes some open-ended questions but mostly employs Likert type scales -with good reliability as measured by Cronbach's alpha.

Women Entrepreneurs' Approach to Learning

It is acknowledged that gender matters in entrepreneurship education (Ettl and Welter 2010), but what there is on this is firmly focused on ways to improve it (Davis 2012), rather than on proving why, on the assumption that more of a good thing is an even better thing. Often the suggestions boil down to calls for more, or different, formal entrepreneurship education (Valerio *et al.* 2014), based either on providing instructions on the mechanics of setting up a business, or by supplying instruction on the acquisition of entrepreneurial skills, (Bridge *et al.* 2009). By way of contrast, our survey results show that the kind of provision in which someone designs a structured programme of learning to be delivered through technology (Clark and Mayer 2008), is now largely irrelevant to women entrepreneurs in Wales, having been replaced by a range of informal approaches to learning that entail a -more or less- ad hoc learning strategy facilitated by everyday technology, including social media. This seems to suit our respondents as it enables self-directed exploratory and flexible learning for these women who are -in the main (60%)- juggling work with family responsibilities. In light of this finding we should perhaps describe what we are looking at as less to do with the supply of formal education and more to do with how knowledge spills over (Acs *et al.* 2013), to encourage the demand for all kinds of entrepreneurship related learning. In what follows we therefore adapt our definition of entrepreneurship education to include the informal learning mediated by a host of (evolving and expanding), technologies that are primarily orientated towards facilitation of social interaction and networking, but which nonetheless enable women to understand the activities that they are engaged in as entrepreneurs. We can look at this social e-Learning process in terms of both supply, which is to say the content, techniques, and technologies used to transmit the knowledge, and in terms of demand, which depends on preferred learning styles, motivations, and needs. As with all supply and demand approaches looking at it in this way draws our attention not towards the division between the two -important though that is- but rather towards consideration of how the supply and demand come together. In looking at this our survey reflects what others have found, for example, our survey confirms the importance of the immediacy of the learning that technology facilitates, which is widely recognised as a great advantage (Martin and Ertzberger 2013), as well as confirming what others have found about its role in enabling collaboration, (Northey *et al.* 2018), and how successful an

approach such collaborative learning can be (Johnson and Johnson 2009). Likewise, our results confirm what others have found about how different technologies permit slightly different interactions and modes of engagement with different implications, in turn, for how and what is learned (Cerratto-Pargman *et al.* 2018).

On the main issue of how education and enterprise come together, it has to be borne in mind that although 40% of our respondents had engaged in some formal entrepreneurship education in the past, because we only sampled established entrepreneurs (with only 6% of our sample being aged 25 or younger), what we are looking at on the education side is andragogy, which Knowles (1980) defines as “the art and science of helping adults to learn,” (p.43) rather than pedagogy which is synonymous with teaching. This is reflected in the fact that nearly all our respondents were no longer dependent on any educational establishment to direct the trajectories of their enterprise related learning. This means our respondents have a relatively large degree of choice over what is learnt and where (which is likely to vary depending on the exact nature of the task in hand), but on the other hand suggests –as their responses confirm- that they may actively seek out and network with other learners in similar situations to themselves given the uncertainty regarding the nature and scope of the learning requirements. The fact that social media provides both the flexibility and the networking opportunities that would enable this may explain why it emerged so strongly from this particular piece of research. It is also worth noting that although such networks have a locational bias there are definite non-localised elements too, suggesting that the associational capacity (Cooke and Morgan 1998) of the firms our entrepreneurs are running are becoming more detached from the constraints of geography, which as time moves on is only going to increase as survey samples -like ours- that contain mostly non ‘digital natives’ become a thing of the past. This is not to say that our respondents could be classed as inexperienced in the use of information and communication technology, as not only is the use of smartphones now ubiquitous in Wales, ICT is now such an inescapable feature of business that no women entrepreneur can afford to ignore it, regardless of their scale of operation, or age. Indeed, it seems somewhat inevitable that networking and its associated e-Learning will become ever more ubiquitous and embedded in all aspects of female entrepreneurship over time as technology marches on (Fee 2009). Quite what that technology is will change of course and any list will age quickly, although for the sake of completeness it is worth noting here that e-Learning in Wales currently involves digital devices such as

mobile phones, smartwatches, laptops and tablets, and a range of digital networking facilitators such as Facebook, LinkedIn, Twitter, Whatsapp, and Instagram, as well as a growing number of 'cloud' storage apps to better hold all the information that is being generated, (Alshamaila *et al.* 2013).

Defining Success

Having defined the scope of what we mean by 'entrepreneurship education,' we now turn to exactly what we mean by 'success.' As mentioned previously, the benefit of improving the education of women entrepreneurs is often stated in terms of the potential to increase economic measures of value, such as GDP (Rose 2019). The measurement and interpretation of this is not without its problems, however. Firstly, there is an artificial lift given to financially based measures of value when women switch from traditionally unpaid roles to paid ones (which we briefly alluded to in the introduction), and which we need to keep in mind when we measure success as it suggest that women may more accurately evaluate the real costs and benefits of becoming an entrepreneur than the officials compiling the GDP statistics. This is reflected in our surveys in the feedback around the issue of the work-life balance, which came out strongly as a bonus of being in business, since although being an entrepreneur does not – according to most responses- mean working less, it does mean more choice over when and where the work is done which, unsurprisingly, suits those with family and other responsibilities. The importance of this is confirmed when we look back at the reasons given for starting a businesses in the first place within our survey, as this includes factors such as providing for children and being a role model to them, which supports the comments made by authors such as Andringa *et al.*, (2015) about the importance of social context in influencing female entrepreneurship. That these choices are context specific (Forson 2013), means that to get the complete picture on our results we need to understand the background in South Wales, which in summary is an environment that traditionally featured a strong division between the sexes; with the men departing the home for full time work, while the women juggled child-rearing with more flexible forms of paid work -which often meant doing more hours of labour in total (Beddoe 2000). This pattern is changing, however, as women in the region strive for equality with men, although it is still the case that the caring responsibilities remain relatively high for women, while wages remain relatively low

(EHRC 2018). As a result of such differences in context and the costs and benefits that these give rise to (and possibly innate differences too), women may have different ways of evaluating what constitutes success to men (Dalborg *et al.* 2012), with factors like having a good reputation, and having good customer relationships being repeatedly mentioned by our respondents, even though they may not have immediate financial benefits (Mitchelmore *et al.* 2013). This is something we have made allowance for in our methodology, both by following Bartlett's (1988) advice in looking at multiple quantitative measures based around both revenue and profit, and by offering respondents a list of such factors to tick as indicators of success which we then took into account in making a determination as to how to score different degrees of success.

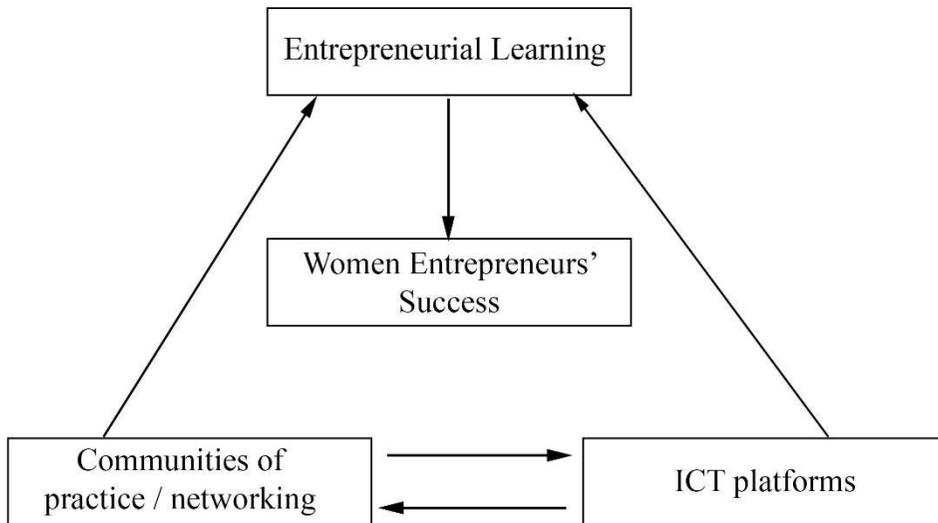
Main Findings

In terms of learning, nearly three quarters of our sample affirmed that they used networking for learning, and within this 89% confirmed that it is done by using digital platforms; with 47% using YouTube, 75% using Facebook, and 74% using mobile phones. In a related vein, 67% confirmed that they felt that they belonged to a community of practice; with 32% being in formal business associations, 23% belong to professional associations, and 51% being part of recognised networking groups. In terms of the link to technology, 69% stated that digital platforms and ICT helps them participate within these communities of practice, with the same proportion indicating that this is achieved using laptops, while 65% mentioned mobile phones, and 55% iPads and tablets. On the issue of success, while respondents were roughly equally split on financial measures between sales and profit, 91% selected multiple answers on the non-financial side.

Given these results it makes sense to modify our earlier stated hypothesis to a more appropriate one to the effect that entrepreneurship learning has a positive effect on a broadly defined measure of the success of women entrepreneurs in South Wales. To determine the scale of this association we conducted some standard multiple regression tests using various parameters from within the survey, from which we concluded that entrepreneurship learning accounts for around a quarter of the variation in our measure of women entrepreneurs' success. There is a caveat to this finding, however, as although we can defend it and even add weight to it by pointing out that 80% of our first sample felt that entrepreneurship learning

enhanced their chances of success in business (which was supported in the other two parts of our survey), what we are not so sure about is what contribution the various facets of what we have looked at make: As already discussed, there are a number of constituent parts that go to make up entrepreneurship learning and we feel that we have identified the key ones in terms of what we might typically record as enterprise education, plus use of ICT for entrepreneurship learning, and networking for entrepreneurship learning. However, when we come to use these in multiple regression we find that this produces an identification (separation) problem. In particular, we found that ‘networking’ acts as a confounding factor by exerting an influence on both the other independent variables as well as on the dependent variable of women entrepreneurs’ success. Rather than seeing this as a statistical problem to be overcome by –for example- removing the variable we think it is best to keep it in and simply model networking as acting in a supporting role as depicted in Figure 1, in the same way that technology (more obviously) does.

Figure 1: Model of entrepreneurial learning in a social media rich environment



We feel that this is the correct interpretation, particularly as there is no generally accepted cut off point for collinearity with tests such as the ‘variance inflation factor,’ being described in terms of cut off points that

vary widely; with Hair *et al.*, (1995) putting it at a figure of 10, while Ringle *et al.*, (2015) put it at half that. As a result of this lack of agreement, we were forced to make a judgement based on a range of factors, such as the bivariate correlations, the effect of introducing the variable on the other variables, and in our case sign-switching on the networking variable. Our judgement on this is, of course, consistent with feedback from all three parts of our survey which all suggest that nowadays entrepreneurship learning cannot be isolated from technology and networking. This finding, while invalidating any inferences we might have liked to have made on their separate effects (which is why we have not included them here), does not invalidate our assertion that entrepreneurship education accounts for a quarter of the variation in women entrepreneurs success, however, as the predictive power of the model, and therefore the figures shown below, are not affected by multicollinearity in the constituent parts.

Table 1. Summary results of the effect of entrepreneurship education on women entrepreneurs' success.

Adjusted R²	SEE	F	Sig
.245	.868	24.863	.000

Conclusions and Recommendations

Our survey suggests that -in South wales at least- we need to see entrepreneurship education as a product of flexible and social e-Learning that works via networks to produce a statistically significant positive effect on the success of women entrepreneurs when measured in broad terms. The implication of this for policy is twofold. Firstly, for educators it underlines the importance of designing courses that take into account the way women entrepreneurs approach learning, so that their participative, interactive, networked, and flexible way of utilizing modern communications technology is exploited. Secondly, for those designing broader entrepreneurial support systems the fact that part of the reason women use technology in the way they do is that they are often fulfilling multiple roles needs to be acknowledged, otherwise we may inadvertently discriminate against women entrepreneurs as we may have done (and may still be doing) in Wales - as Atkinson (2001) first suggested. That there still exists something of a mismatch between tech savvy women entrepreneurs and a system that insists on person to person non-technologically intermediated

interactions in an -often lengthy- bureaucratic process was confirmed by one of the authors of this report in seeking assistance to commercially develop a patent (Clark, 2015), when for their very first meeting they were expected to make a four hour round trip for a face-to-face chat that could have far more easily have been done using ICT. That the outcomes of the support provided for entrepreneurs in Wales do not favour women is not disputed, but that this is anything to do with the way the support is provided by the authorities is, and it is in light of this dispute that we hope research such as we have undertaken here will help further tailoring of the Welsh government's approach to make it better suited to the way women entrepreneurs learn.

Reflection and Suggestions for Further Research

A survey of women entrepreneurs shows that entrepreneurship education is now predominantly self-directed social e-Learning that -given the nature of modern ICT technology- is only going to grow in importance over time and is already a statistically significant factor in explaining their success. One consequences of this finding is that in Wales we need to review the way our enterprise support system works as there may be compatibility issues. The limitations of this study are, first, scale -as although we were pleased with the response rate this is always something that can be improved upon- and second the fact that we only looked at women entrepreneurs. It is important, however, to underline the fact that this is a limitation rather than a flaw in our methodology, since it reflects a conscious decision that we made to resist the temptation to frame everything about women entrepreneurship in terms of comparisons to men (Henry *et al.* 2015). That said, extending this work to cover men is an obvious suggestion for further work, particularly as there are places in the foregoing discussion where we have inferred or suggested that it would be different for men only by cross reference to the work of others whose research is unlikely to exactly mirror our own, or relate to exactly similar circumstances.

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