

## Understanding the Motivations of Female Entrepreneurs

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### Abstract

This paper investigates the psychological factors of female entrepreneurship, with a particular focus on personality and motivational factors — addressing a weakness in the existing literature. Through the use of two psychometric measures, the Measure of Entrepreneurial Tendencies and Abilities, and the Motives, Values and Preferences Inventory, female entrepreneurs are strongly motivated by a need for power, commerce, logical decision making, aesthetics and a need for change. Theoretical and practical implications are discussed.

**Keywords:** Women; Entrepreneurship; Personality; Motivators; Psychology

### Introduction

In early 2000, the rate of new businesses created by women considerably outpaced the rate of new businesses created by men, with similar trends occurring in the rest of the developing world (Center for Women's Business Research) [1]. Furthermore, by 2012 companies founded by women accounted for over \$3 trillion of United States' GDP [2]. In light of this, female entrepreneurs are now considered key drivers of economic growth; however the underlying psychological processes remain under-researched. Although the relationship between entrepreneurship and gender-specific traits was first explored by McClelland [3], it was not further analysed till the late 1990s, when feminist theoretical and empirical studies [4-6] arose as an attempt to explain how female entrepreneurship was linked to variables such as the allocation of family resources, childbearing decisions, opportunity perceptions, self-confidence and poverty [7]. Nonetheless, the identity, belief and value systems of female entrepreneurs remain unknown, despite calls from researchers [8,9]. It is hypothesised that by understanding the motivational factors of female entrepreneurs, as a variable of their personality, gender-specific entrepreneurship interventions can be further developed. It is this research question that is the focus of this paper.

### Entrepreneurship

While there is agreement on entrepreneurship's role as a stimulator of economic growth and job creation, academic research has struggled to accurately define what entrepreneurial activity [10-12]. Although self-employment is often indicated as a central aspect of entrepreneurship [13,14], some researchers believe that business creation is neither a necessary or sufficient aspect of entrepreneurship [15]. For example entrepreneurial activity or behaviour can also occur outside (e.g. college students forming social clubs) or within others' organisations (e.g. corporate entrepreneurship), and does not always involve profit making (e.g. social entrepreneurship) [16].

It is important to note that despite the variation in what constitutes as entrepreneurial activity, there is consensus surrounding the general themes of entrepreneurial behaviour. This includes the ability to both recognise and take advantage of opportunities [17], and create value [18] through innovation [19]. In light of these inclusive representations of entrepreneurial activity and behaviour, the present paper will define entrepreneurship as a function of an individual's personality, as characterised by behaviours that are related to the creation of value through the exploitation of opportunities in novel and innovative ways [20-22].

### Entrepreneurship and Personality

Traditionally entrepreneurial activity was not viewed as being a product of an individual's behaviour [23-25], however more recently; an entrepreneur's personality traits have been demonstrated to be important in the prediction of entrepreneurial activity and success [26-29]. To clarify, personality traits are defined as typical behavioural tendencies that are invariant across situations and observed to be consistent over time [30].

A meta-analysis conducted by [28] suggests that entrepreneurial success could be positively predicted by an individual's tendency to act innovatively, have a preference for risky decisions, and be motivated by a need for achievement and autonomy — findings replicated by Ahmetoglu et al. [31]. As a result, Ahmetoglu and Chamorro-Premuzic developed META, a Measure of Entrepreneurial Tendencies and Abilities, a psychometric instrument that is able to assess individual differences in the ability to recognise and exploit opportunities, innovate and create change. This instrument is based on the principle that individuals are more or less entrepreneurial as a function of their personality, which is dependent on their engagement with the above four abilities. The measure has found to be related to emotional intelligence and core-self evaluations [16], callous-unemotional traits [32] and vocational preferences [31].

### Female Entrepreneurship

Within the western world, there is a growing trend in females participating in entrepreneurial activity. For example, within the European Union 34.4% of entrepreneurs are now females and in the United States there are more than 6.2 million privately held, women-owned firms [33]. Worldwide, the Gender-GEDI Executive Report (2013), a diagnostic tool that identifies the conditions that foster female entrepreneurship, found that the USA ranked number one, followed by

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Australia, Germany and France for the overall score of entrepreneurial environment (cultural support and opportunity perception), ecosystem (competition, quality of human resources & technology sector) and entrepreneurial aspirations (high growth, process innovation, internationalization & external financing).

Empirical research has largely demonstrated that a major component leading to independent employment choice is the level of education. Although some argue against it, [34,35] most conclude that female business owners have a higher university degree than the overall population majority [36-38]. As noted by the Gender-GEDI Executive Report "higher education not only provides high-potential female entrepreneurs with the skills needed to grow their businesses, but also broadens their networks, another critical factor for high-potential female entrepreneurship success" (p.9; 2013). A second trend identified by the literature is centred on the need to balance personal life and work responsibilities [39,40], often arising after the first child is born [41]. It must be noted that only 39% of professional women in 2005 chose to return to work full time after taking time off for family reasons [37]. As a result, female entrepreneurs usually tend to possess fewer years of business experience than men [42,43] and often none at all [44]. Strict and bureaucratic corporate environments deeply contributed to push women towards an independent start-up, allowing both greater wealth and flexibility [45].

Barriers to success have been revealed by several theorists to often be non-economic factors such as culture and institutions [46]. In the first case, social norms influence the general support that a particular culture provides to women choosing an entrepreneurial route. The number of gendered institutions (i.e women's entrepreneur's networks) therefore depends on the general population's willingness to accept and sustain the phenomenon. Feelings of guilt and tensions deriving from the public view on the traditional role of women in society may prevent female entrepreneurship expansion [47]. In the second case, if institutions do not facilitate and allow basic business freedoms indispensable for starting, running and exiting a business, the ration of female entrepreneurs will certainly decrease (Gender-GEDI Executive Report, 2013).

Finally, not enough research has been compiled over female entrepreneurs' personality motivators and drivers. Having needs for independence, achievement, self-fulfilment, social status and power are continually ranked among the first motivators of female self-employment [18,48,49]. In particular, the need to achieve, a common value of female entrepreneurs [50] is based on the motivation to do well and accomplish goals within certain standards, all related to the perception of control [51]. Furthermore, female Entrepreneur's risk-taking behaviour has been object of controversial discussion in the academic world. Some researchers are convinced of the moderate aspect of this personality trait [52-54] while others explain how risk-tolerance depends on an individual's self-confidence and locus of control [55,56]. In simple words, female entrepreneurs might be perceived by external entities as high risk-takers given their strong self-confidence and assertiveness but not necessarily by themselves. Overall, the majority of papers conclude that female business owners are risk-averse [13,57] and prefer employing less-risky growth strategies in order for their enterprises to develop at a more solid pace [58].

The aforementioned research appears to suggest that the motivations of female entrepreneurs are important, yet the literature is mixed and inconsistent, this is largely due to previous investigations failing to use an established framework of psychological motivations, overuse of post hoc hypothesis and low statistical rigour. The lack of research

that specifically investigates the relationship between personality traits and female entrepreneurs has created a need for further clarification so that practical interventions can be developed to potentially increase the success of female entrepreneurs.

The current study addresses the aforementioned criticisms by investigating the relationship between two psychometric measures: the aforementioned measure of entrepreneurial personality, META, and the Motives, Values, Preferences Inventory (MVPI) [59], a measure of an individual's motivations, identity concepts and values. The MVPI is a contextualized measure, in that its items are concerned with an individual's motivations at work. It consists of ten sub-scales and is well validated [60-62]. The relationship between an individual's motivations and entrepreneurial personality will be explored to identify the motivators possessed by female entrepreneurs, specifically between META's facets and the MVPI's sub-scales. Although the research is exploratory, yet in light of the aforementioned research, a specific hypothesis will be tested:

- H1: Among MVPI sub-scales, power, commerce and aesthetics will positively predict increased entrepreneurial behaviour (META).

It is hoped that this hypothesis will confirm the emerging themes in the literature, while allow the identification of new motivators behind female entrepreneurship.

## Method

### Participants

A total of 150 female entrepreneurs were recruited through a range of female entrepreneurship networks based, in order of highest contribution volume, in the UK, USA and Italy. With regards to participants' job title, approximately 28.6% indicated they were a director; 15.7% were consultants/coaches, 15% were CEOs, 7% were owners, 5.7% were founders/co-founders, 5% were managers and only 2.8% indicated they were entrepreneurs.

### Measures

Measure of Entrepreneurial Tendencies and Abilities (META); [31] META is a 61-item self-report scale measuring personality traits relevant in entrepreneurial success and consists of four dimensions: creativity ("I am always trying to find new ways of doing things"), opportunism ("I see business opportunities where others don't"), proactivity ("I like to get things started and make things happen") and vision ("My goal in life is to create something that transforms people's lives"). Participants respond to each item by a five point Likert scale, ranging from 'Strongly Disagree' (1) to 'Strongly agree' (5). A Principal Axis Factoring with an oblimin rotation revealed four factors, EA (11 items), EC (12 items), EO (18 items), and EV (20 items), which is in line with previous research [16]. See Table 1 for a measure of META's internal consistency [59].

### Motives, values, preferences inventory

The MVPI describes the core goals, values, drivers and interests that determine what people desire and strive to attain. Values are measured along 10 primary scales, such as aesthetics ("I like to be around artists and writers"), affiliation ("I am a people person"), altruism "I like to spend my spare time helping others"), commerce ("I enjoy meeting people who are successful in business"), hedonism ("My idea of living is good food, good drink, and fun times), power ("I enjoy being in charge"), recognition ("I am annoyed when people don't treat me with the respect I deserve"), science ("I believe progress is only possible

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	M	SD	α
1. META Total	—														149.82	16.21	.86
2. E Opportunism	.88**	—													34.35	5.99	.73
3. E Proactivity	.81**	.71**	—												37.36	5.15	.71
4. E Creativity	.75**	.53*	.46**	—											38.56	5.45	.72
5. E Vision	.60**	.38**	.29**	.27**	—										39.55	4.49	.72
6. Aesthetics	.26**	.20*	.11	.36**	.11	—									3.37	.95	.71
7. Affiliation	.12	.12	.16	.06	.00	.11	—								3.89	.64	.69
8. Altruism	.00	-.04	.01	.12	-.09	.07	.21*	—							3.44	.73	.73
9. Commerce	.37**	.39*	.27**	.20*	.25**	.03	.09	.05	—						3.95	.58	.69
10. Hedonism	-.05	-.02	-.03	-.12	.02	.08	.15	-.21**	.01	—					3.47	.76	.72
11. Power	.46**	.27**	.31**	.33**	.54**	.00	.06	.01	.29**	-.03	—				4.22	.58	.73
12. Recognition	.10	.04	-.07	.05	.34**	.17*	.02	.00	.14	.02	.23**	—			3.47	.78	.69
13. Science	.23**	.19*	.17*	.26**	.08	.16*	-.20*	.04	-.05	-.12	.01	.01	—		2.80	.87	.74
14. Security	-.40**	-.37**	-.34**	-.47**	.00	-.11	-.13	-.14	-.08	.17*	-.15	.11	-.09	—	2.39	.74	.72
15. Tradition	-.24**	-.18*	-.26**	-.24**	-.03	-.20*	-.03	.22**	-.03	.02	.01	.13	.07	.35**	3.98	.69	.69

Note: 2-5 = META facets, 6-15 = MVPI sub-scales. E = Entrepreneurial. \* p< .050 (two-tailed), \*\* p< .010 (two-tailed).

Table 1: Descriptive statistics, bivariate correlations and alpha coefficients for META and MVPI.

	META Total		Opportunism		Proactivity		Creativity		Vision	
	β	t	β	t	β	t	β	t	β	t
Aesthetics	.17	2.62**	.12	1.65	—		.28	4.21***	—	
Commerce	.25	3.86***	.33	4.66***	.19	2.56**	.10	1.51	.09	1.20
Power	.35	5.40***	.13	1.86	.22	2.94***	.24	3.66***	.46	6.44***
Recognition	—		—		—		—		.22	3.15**
Science	.20	3.24**	.17	2.40**	.17	2.37*	.19	2.94**	—	
Security	-.25	-3.77***	-.28	-3.70***	-.21	-2.70**	-.35	-5.09***	—	
Tradition	-.13	-1.92*	-.07	-.89	-.20	-2.58**	-.07	-1.02	—	
F(6, 143) =	21.24***		12.08***		10.74***		18.02***		25.25***	
Adj R <sup>2</sup> =	.45		.31		.25		.41		.33	

\* p< .050 (two-tailed)  
 \*\* p< .010 (two-tailed)  
 \*\*\* p< .001 (two-tailed)

Table 2: Results of a series of linear regressions that predicted META scores from MVPI factors.

through scientific research”), security (I don’t like unpredictable situations”), tradition (“I am pretty strict about right and wrong”). Each of the 10 factors was tested with three questions on a five-point Likert scale, ranging from strongly disagree to strongly agree. Table 1 for a measure of the MVPI’s internal consistency.

### Procedure

Participants were recruited through professional networks, social media sites (such as LinkedIn, Facebook and Twitter), emails and posts in relevant forums. Participants provided biographical information, followed by the META and MVPI questionnaires. Feedback across both measures was given upon completion.

### Results

Before any analyses were carried out, the data was cleaned for any missing values and anomalies, while ensuring the assumptions of the general linear model were not violated [63]. Descriptive statistics and bivariate correlations for both measures are presented in Table 1. As demonstrated, the mean for the total META scores is 149.82 out of 200 (SD=16.21), suggesting a high prevalence of entrepreneurial tendencies

within the current sample, while demonstrating META’s internal consistency through acceptable alpha levels both within the entire scale and between its facets, and through the significant inter-correlations held between each of the four facets.

By exploring the correlations between the MVPI’s sub-scales and META, power was most strongly associated with META, followed by commerce, aesthetics and science. Conversely, negative relationships can be observed between security and META, as well as between tradition and META.

### Multiple regressions

To further explore the relationship between META and MVPI, alongside testing this paper’s hypothesis, a series of multiple regressions were carried out. In total five models were tested, with META facets and it’s a total score acting as dependent variables, with the MVPI sub-scales acting as predictors. By specifying each of META’s facets as a dependent variable, it was hoped that a more nuanced insight could have been achieved as specific relationships could be explored. MVPI sub-scales were included in the regressions only if they were significantly correlated with a META facet or its total score. Table 2

displays the results of these analyses, and subsequently supports this paper's hypothesis.

The first regression model featured total META scores as a dependent variable. With aesthetics, commerce, power, recognition, science, security and tradition acting as predictors, 45% of the variance in META scores was significantly accounted for. A need for commerce and power strongly predicted increased META scores, while a need for security and tradition negatively predicted lowered META scores. Similar findings were found in models whereby entrepreneurial opportunism and entrepreneurial proactivity were dependent variables, with 31% and 25% of the variance accounted for respectively. When predicting entrepreneurial creativity, 41% of the variance was accounted for. While a need for aesthetics most positively predicted scores, a need for security most negatively predicted scores. Finally, when predicting entrepreneurial vision, the needs for power and recognition were the only significant predictors, accounting for 33% of the variance. Unlike previous regression models, the need for recognition was the only MVPI significantly associated with a META facet. The theoretical implications of these results will be discussed.

## Discussion

The main purpose of this study was to explore the psychological motivations behind the rising trend of female entrepreneurship, using a novel conceptualization of entrepreneurial behavior (META), and an established framework of psychological motivations and identity concepts (MVPI). As hypothesized, a need for power, commerce and aesthetics (in order of strongest correlations) were found to positively predict entrepreneurship behavior, as represented by total META scores. Although not hypothesized, a need for science, security and tradition were also found to predict entrepreneurial behavior, except for the latter two motivations predicting lower META scores. This is unsurprising, given the notion that entrepreneurs are innovators and are comfortable with risk [64]. These findings provide support for the female entrepreneurs being motivated by a need for achievement, independence and social status [18,50], while challenging the literature that suggests female entrepreneurs are more risk-averse, than male counterparts [13,57].

Unlike existing literature, this study identified the importance of aesthetic motivations: personal values and lifestyle choices that are focused on creative expression, imagination, culture, and attractive surroundings [65]). This finding suggests that female entrepreneurs therefore are characterized by a sense of qualitative innovation, and caring about product standards.

Although not hypothesized, a need for Science (valuing curiosity, analytics, problem solving and using new technologies; Hogan [65]) was found to positively predict total META scores alongside all META facets except entrepreneurial creativity. When interpreting this finding alongside, other positive predictors (power, commerce and aesthetics), it is not unsurprising. In fact, a businesswomen's desire to accomplish an economic success, while creatively self-express themselves, is accompanied by an accurate disciplined evaluation of possible decisions. A value for evidence therefore could be suggested as a way to regulate risky decisions, encourage logical reasoning and balance novelty with pragmatism. When combined with a low need for security and tradition, multiple novel ideas can be entertained without feeling fearful, while challenging the norm [66].

To summarize, the data suggests that female entrepreneurs are driven by an inner desire to control and influence their environment (power), to financially succeed (commerce) and to creatively self-

express themselves in all aspects (aesthetics). Given their curious and analytical personality (science), they enjoy taking intuitive risks (low security) in order to challenge the status quo and dynamically contribute to the progress of society (low tradition).

## Limitations and Future Research

The current study of course has some limitations that must be considered. First of all, the sample was selected only from western countries, therefore restricting the findings to a very specific area of the world and making it partly irrelevant to understand the wider phenomenon of female entrepreneurship. Moreover, the use of an abbreviated version of the MVPI (only three items per scale, rather than 20) may have affected its robustness as a valid psychometric measure. Lastly, and most importantly, the data collected is only self-report. Objective and subjective measures of entrepreneurial success such as those featured in Akhtar et al. [32] and Ahmetoglu et al. [16] would extend the current study's findings.

Future studies should implement the above into account, and may also consider including two other contextualized measures of personality, both of which belong to the same psychometric suite as the MVPI — the Hogan Personality Inventory (HPI) [67] and the Hogan Development Survey (HDS) [68]. While these two measures have not yet been used to explore entrepreneurial behaviour, the HPI, HDS and MVPI are built upon Socioanalytic Theory [69]. By using each of the aforementioned, entrepreneurial behaviour can be holistically explained within a theoretical framework.

## Implications

The results of this study has both applied and scientific significance. For what concerns the first case, policy makers and governmental bodies will be the first entity to benefit from learning about the motives of prospective female entrepreneurs. Training programs can be improved so that they are tailored to female entrepreneurs and ensure that the appropriate advice gets delivered [50]. Secondly, financial investors will better evaluate the entrepreneurial potential of specific individuals and select their funds' directions more successfully. This will certainly increase capital directed towards small business ideas, hopefully increasing innovation and economic growth. Regarding the latter, the research supports the notion that entrepreneurship is a function of an individual's personality and is not just confined to self-employment/job creation. Additionally, the study further validates META as a measure of entrepreneurial behaviour, thereby demonstrating its use for the identification and selection of individuals who may possess entrepreneurial potential.

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