

Destiny or 'Choice': Women in Investment Management – Why so Few?



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ABSTRACT

Traditionally, banking and finance have been male domains; however, in recent years women have been attempting to challenge this status quo. Investment management and the trading floor (despite being the most lucrative sub-sector of the industry) stubbornly remains 'a jungle of chest-pounding males' (Lewis, 1989: 9). This paper aims to address the current gap in the literature concerning the educational choices and subsequent career-orientated decisions made by women which influences them to opt into or out of careers in investment management. This paper, while recognising choice is a multifaceted, intricate process, will concentrate on one strand of the literature, namely the individual factors which have been put forward to explain the existence of gendered behaviour in educational and occupational choice. A conceptual model is presented within this paper which identifies three key clusters of individual factors that influence educational and occupational choice. This model assists in addressing the question of whether men and women's educational and occupational choices differ not because of stereotypes embedded by society, family and institutions, but because of our inherent personality traits.

Key Words: Investment management; educational choice; occupational choice; gendered behaviour

INTRODUCTION

One of the most striking features of the global labour market is that, despite the market being more or less equally divided between men and women, significant differences exist in the occupations that men and women occupy (Weisgram et al., 2010). In particular, women are significantly underrepresented in fields such as construction, engineering and science, as testified by a significant body of literature regarding women's experiences in these domains (Hegewisch et al., 2010; Rosenbloom et al., 2008; Bacik and Drew, 2006; Adya

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and Kaiser, 2005). Within the field of finance, a small body of literature exists regarding women's representation in the sector. Most of this literature has focused on women working in accounting and, to a lesser extent, auditing and taxation (Twomey and Linehan, 2002; Barker and Monks, 1998). Over the last decade, some literature has emerged regarding women working in financial services sectors such as insurance and retail banking (Broadbridge et al., 2007; Ozbilgin and Woodward, 2004) but, to date, investment management has received limited attention.

Within the financial services sector, statistics indicate equality among the sexes globally (Zahidi and Ibarra, 2010). In 2010, the majority of working women were employed in the services sectors, with financial services and insurance recording the highest level of female employment at 60 per cent (Zahidi and Ibarra, 2010). Patterns across the European Union's 27 member states (EU27) were similar, with parity between the number of men and women employed in the financial services sector evident in 2007 (51.1 per cent female and 48.9 per cent male) according to the European Commission (2007). In Ireland in 2006, 58.4 per cent of all employees in the financial services sector were women (European Commission, 2008).

Despite the fact that women and men are equally represented at a sectorial level within financial services globally, significant divergence is evident in both the sub-sectors women and men work in and the roles they hold. This is a stubborn trend which has persisted over the decades, as evidenced by findings of the International Labour Organization and the European Commission:

Men are in the majority among managers, top executives, and higher levels of professional workers whilst women are still concentrated in the lower categories of managerial positions (International Labour Organization, 2004: 2).

Women are prominent in administrative and secretarial jobs, but are significantly under-represented in managerial jobs, including those at senior level (European Commission, 2010: 20).

Even at the very highest EU decision-making levels within the financial services sector, gender imbalance is apparent. Within the European Central Bank, European Investment Bank and European Investment Fund a combined 85:15 male-to-female ratio exists in the number of employees. In addition, all three organisations are led by men (European Commission, 2010). The story in the context of Irish financial services is no different:

Of the 40,000 people who are members of the Irish Bank Officials Association, 70 per cent are women. One in every 28 women employed in Ireland works in a high street bank, but few make it into banking management (Murphy, 2012: 3).

The focus of this paper is to examine one particular sub-sector of the Irish financial services sector, that of investment management. The structure and composition of the investment

management sector, as well as the rationale for selecting this area, will be outlined in the next section.

INVESTMENT MANAGEMENT

Structure and Composition of the Sector

Investment management is one of the three main sectors of employment within the Irish financial services sector, the other two being banking and capital markets, and insurance (Forfás, 2008). Investment management is a term that is widely used in both the media and within the financial services sector. Despite the ubiquitous nature of the term, it defies clearly-defined parameters. For the purpose of this study, the investment management sector will be bounded by parameters as defined by Forfás (2008), whereby the sector is comprised of two sub-groups, namely 'front office' (investment management) and 'back office' (fund servicing).

Generally, 'front office' refers to those working in roles such as trading and roles related to the management of funds, whereas 'back office' refers to those working in funds servicing and functions which support front office. Within the Irish market, front-office positions are scarce and commonly seen as high-value, well-paid and knowledge-intensive roles based primarily on high-level quantitative and mathematical skills (Forfás, 2008).

Rationale for Examination

This research is timely given the recent global financial crisis and renewed focus on the dominance of male decision makers within the sector, especially within the area of investment management. A 2011 commentary by Christine Lagarde, managing director of the International Monetary Fund, highlights the importance of a more balanced investment floor:

[T]he 2008 financial collapse was, at least in part, driven by the aggressive, greedy, testosterone-fuelled mood of male-dominated, hi-tech trading rooms ... in gender-dominated environments, men have a tendency to ... show how hairy chested they are, compared with the man who's sitting next to them. I honestly think that there should never be too much testosterone in one room (Lichfield, 2011).

To date, no official statistics have been recorded or studies undertaken to examine the gender balance within investment management in an Irish context. However, in line with the commentary of Lagarde above (Lichfield, 2011), empirical evidence suggests that while differences exist within financial services and investment banking between Ireland, the EU27 and the United States (US) in terms of corporate governance, regulation, etc., one common trend prevails in all locations – the continued absence of women in senior management positions (Arnaboldi and Casu, 2011: 14):

The sole common feature [of] both Anglo-Saxon and continental European countries seems to be the under-representation of women ... The proportion of women CEOs of EU banks is only two percent, the same as in the US.

Scholarios and Taylor (2010), in their United Kingdom (UK) study, highlighted the lack of women in front-office investment management roles:

[M]ales dominate higher end positions such as stockbroking (59 per cent) in contrast to female domination (80 per cent) of basic customer service roles (Scholarios and Taylor, 2010: 103).

In the US, the absence of women in front-office investment management was also emphasised:

[G]o to a conference of hedge fund managers, or a benefit or just an old fashioned booze up, and it is obvious that something is missing: women (McLean, 2005).

Niessen and Ruenzi (2006: 4) went so far as to propose that women are absent from the US investment management sector because 'fund management companies only employ as many female fund managers as needed to avoid lawsuits due to gender discrimination'.

Currently in Ireland, the funds and investment management sector is one of the largest sectors of financial services employment, with over 10,000 employees and, despite the current financial crisis, it continues to hire new staff (Financial Services Ireland, 2010). Despite significant recruitment, the investment management decision-making roles within front office and trading floor domains remain male dominated (Ozbilgin and Woodward, 2004; McDowell, 1997). As a consequence, the antecedents of career choice for women within investment management require further examination (Ogden et al., 2006).

It is accepted that an individual's educational and occupational choice is an iterative, complex and multifaceted process (Foskett et al., 2008). As a consequence, a plethora of influences have been proffered in the literature as explanatory variables for such choices. One such cluster has been classified as 'individual led', where individual factors such as personal attributes, characteristics, goals and aspirations are seen to influence educational and occupational choices. The objective of this study is to examine the individual-led factors as to why women remain absent from investment management front-office roles in Ireland.

Individual-led factors are considered appropriate for examination in addressing why women are absent from investment management front-office positions given the 'macho culture' of the sector. Eccles et al. (1998), Eccles (2005, 2007) and Larose et al. (2006) argue that personality, self-efficacy and personal identity play a key role in educational and occupational choice for women and this is particularly evident in male-dominated fields.

This paper will explore, through the lens of gender, the individual factors and their influence on career choice in investment management. The literature review will commence with a discussion of personality traits and their influence on career choice. Attention will then turn to the related concept of self-efficacy, which examines, '... the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations' (Bandura, 1997: 3). In other words, self-efficacy is an individual's perception and belief in

their own ability to be successful at a particular task or, in the case of the labour market, their belief or perception regarding their career success. The construct of 'self-system', which Bandura (1977) introduced into psychology literature, will also be addressed within the review of literature. The self-system is comprised of attitudes, ability and cognitive skills, and Bandura (1977) proposed that personality and self-efficacy are highly correlated and combine to play a significant role in the formation of one's self-system.

Related to both personality type and self-efficacy is the final strand discussed in the review of the literature – namely personal identity and goals. An individual's personality and their belief in their own ability underpins their personal identity and goals and, as such, shapes their educational and career paths. Given that individuals pursue careers that adequately reflect their best 'possible selves', the notion of task value and its contribution to the debate is also explored. Task value is defined by Eccles (1994: 596) as, 'a quality of the task that contributes to the increasing or decreasing probability that an individual will select it'.

The review of the literature will be complemented by a conceptual model in order to corroborate the author's contribution to existing literature investigating the individual-led reasons why women are not present within front-office investment management in Ireland.

LITERATURE REVIEW

The heterogeneity between individuals is often examined through the lens of gender, wherein individual traits and choice are associated with 'maleness' or 'femaleness' (Hess and Ferree, 1987). As early as 1942 the differences between the genders was being explored and used as an explanatory variable for differences in social behaviours, including educational and occupational choice (Parsons, 1942).

Personality and Educational and Occupational Choice

According to Cobb-Clark and Tan (2009), occupational choice depends on personality, which is highly correlated with gender. Ham et al. (2009) and Larson et al. (2002) indicate that the decision to choose a particular career path is intrinsically linked to the personal characteristics of an individual, which may be inherent in an individual or of a learned nature. Within the realm of traditional labour economics, personal characteristics and their influence on educational and occupational choice have been referred to as the 'dark matter' of economics and have received limited attention (Heckman and Magistralis, 2009: 10; Heckman and Rubinstein, 2001).

However, in recent years a growing body of literature drawing upon psychological theories has been emerging. The common theme across the literature is the correlation between gender, personality type and certain occupational choices (Borghans et al., 2008; Furnham and Fudge, 2008; Heckman et al., 2006). This fusion of economic and psychological theory has revolutionised and enhanced theories of educational and occupational choice significantly, with Heckman et al. (2006) claiming that personality has a greater effect on occupational choice than cognitive ability and this finding is more pronounced among women.

In examining personal characteristics of individuals through the lens of gender, the difficulty often lies in classifying the range of personal attributes and characteristics into a finite number of groups or types. One of the most common classifications used within the literature is the five-factor model, which classifies a wide range of personality traits according to five broad factors: openness, experience, conscientiousness, extraversion, agreeableness and neuroticism (Borghans et al., 2008; McCrae and Costa, 2003; Caplan, 2003; Cole et al., 2009). The five-factor model is considered to be one of the most comprehensive frameworks within which personality psychology and occupational choice can be examined and, hence, it will be utilised within this research. The five-factor model is described in Table 1.

Table 1: Five-Factor Model of Personality

Personality Trait	Low Scorer	High Scorer
Openness	Favours conservative values Judges in conventional terms Is uncomfortable with complexities Moralistic	Values intellectual matters Rebellious, non-conforming Has an unusual thought process Introspective
Conscientiousness	Unable to deny gratification Self-indulgent Engages in daydreams	Behaves ethically Dependable, responsible Productive Has high aspiration level
Extraversion	Emotionally bland Avoids close relationships Over-control of impulses Submissive	Talkative Gregarious Socially poised Behaves assertively
Agreeableness	Critical, skeptical Behaviour is condescending Tries to push limits Expresses hostility directly	Sympathetic, considerate Warm, compassionate Likeable Behaves in a giving way
Neuroticism	Calm, relaxed Satisfied with self Clear-cut personality Prides self on objectivity	Thin-skinned Anxious Irritable Guilt-prone

Source: McCrae and Costa (2003: 53).

Within the five-factor model framework, personality traits are described as:

... dimensions of individual differences in tendencies to show consistent patterns of thoughts, feeling, and actions (McCrae and Costa, 2003: 25).

The model provides broad category headings for personality characteristics which should be considered not as sole catalysts but as contributing factors in one's choice of educational path and subsequent occupation (Ozer and Benet-Martinez, 2006; Barrick and Mount, 2005; Larson et al., 2002; Caplan, 2003). The next section examines the model more closely.

Openness

Openness as a personality trait within the five-factor model is associated with an individual's comfort level with new ideas. If an individual is positive about new ideas and techniques and 'thinks outside the box' they are classified as a high scorer in terms of openness. Such a person might be attracted to entrepreneurial jobs which require idea generation, creativity and independent thinking. Openness is also associated with having a positive attitude towards training and development and embracing new techniques and skills. As a sector, investment management is extremely innovative and dynamic, and financial product development and management is an integral aspect of most roles within the front office (Lyons et al., 2007).

Conscientiousness

Conscientiousness is associated with an individual's attitude towards work. Those individuals who are performance-driven, work hard and are industrious are considered as high scorers. Within investment management, conscientiousness is essential, given the culture of long hours and performance-driven ethos of the sector (Ogden et al., 2006).

Extraversion

Extraversion is associated with being energetic, extroverted, good in social settings and gregarious. Barrick and Mount (1991) claim that extraversion is valued in social jobs or those occupations which required a high volume of socialising and interaction with other people. Krueger and Schkade (2008) and Borghans et al. (2008) argue that those individuals who are more social and extroverted will choose occupations that involve more socialising and opportunities to interact with others. In the field of investment management, extraversion is a personality trait that is essential for certain roles, but not all. For individuals working in social roles where entertaining the client is essential, extraversion is an important personality trait. However, for individuals working in roles with no client interface the need to be extroverted is redundant. This is in line with the results of Barrick and Mount's (1991) study, which found that conscientiousness and openness are valued highly in all occupations while extraversion is valued more highly in social jobs and development and training roles.

Agreeableness

Agreeableness as a personality trait is classified as being compassionate, easy to get along with and likable. Much debate exists within the literature regarding its validity as an explanatory factor for educational and occupational choice. In recent studies, Ham et al. (2009) concluded that agreeableness and extraversion are positively valued within social occupations only.

Gelissen and de Graaf (2006) concur with the earlier Barrick and Mount (1991) study, which uncovered no relationship between agreeableness and career choice. Mueller and Plug (2006) found that agreeableness is not always a desirable characteristic. Wakefield (2008) inferred that this is particularly the case in financial-based careers. In his study, Wakefield (2008) examined the effects of having a Machiavellian rather than agreeable personality and its effect on educational and occupational choice amongst accountants. A Machiavellian personality trait is defined as 'a negative character trait that includes manipulation, cunning, duplicity and bad faith' (Wakefield, 2008: 115).

Machiavellian characters are generally concerned with self-interest rather than the greater good and are not usually considered to be agreeable individuals unless for their own purpose. The results indicated that although Machiavellian behaviour is not essential in order to succeed in finance and accounting professions, such behaviour is certainly considered to have a positive rather than a negative effect (Bowles et al., 2001).

Neuroticism

Neuroticism is associated with an individual's ability to deal with negativity and their level of emotional stability. As described by Ham et al. (2009: 12), neuroticism is seen as a negative personality trait which often leads to individuals being 'less productive due to their distress'. As described by Prospects (2008: 1), a UK-based career advisory service for students, a career in investment management is described as one where 'the work is demanding', and so 'managing large amounts of other people's money is not a career for the faint-hearted'. Hopkins (1986: 70) describes the sector as:

[A] culture based on the Puritan work ethic taken to the sometimes absurd extremes ... leisure, health, relationships and happiness itself are all secondary to work.

Investment management is often referred to as a sector which is aggressive in nature:

... men get so aggressive, shout, scream and throw things across a room (BBC, 2009: 1)

Turco (2010: 903) describes it as 'macho', 'aggressive', 'intense' and 'ruthless'. Hence, investment management requires individuals with a high level of objectivity, a detached personality and an ability to work well under pressure and operate within this organisational culture (Jones, 1998).

Recent literature which has examined the relationship between gender and personality traits within the five-factor model has indicated interesting results. Schmitt et al. (2008) and Donnellan and Lucas (2008) (both examining samples of young adults), concluded that women score higher on all five factors when the broad classification as indicated in the model is utilised. Costa et al. (2001) examined the relationship using sub-headings within each personality trait, and their results indicated mixed results, with women scoring consistently higher than men across the sub-headings of Neuroticism and Agreeableness.

In the case of Conscientiousness, women were seen to score slightly higher, but the gender difference was almost non-existent. For Extraversion and Openness, inconsistent results emerged with women scoring higher on certain sub-headings such as 'openness to feelings', compared with men scoring higher on 'openness to ideas'. In the case of Extraversion, men, under the sub-heading of 'excitement seeking', scored higher than women, who scored higher in facets such as 'warmth'.

The main critics of personality as an explanatory variable for educational and occupational choice cite stability of the traits as a potential problem. However, McCrae and Costa (2003) claim that from the age of thirty onwards, personality and its associated traits are seen as broadly stable. Heckman et al. (2006) and Mueller and Plug (2006) question the validity of personality as an explanatory variable for educational and occupational choice on the basis that personality is endogenous and unstable and may be influenced by labour market factors.

Equally, it can be argued that personality alone is not an appropriate explanatory variable for occupational choice given the feminisation of certain professions, such as law and medicine, over the last number of decades (Kay and Gorman, 2008; Dacre, 2008). Despite these criticisms, overall the five-factor model is seen as a robust and stable model from which to examine personality and its relationship with educational and occupational choice.

Self-Efficacy/Success and Educational and Occupational Choice

Expectations and perceptions of success in any discipline are essential influences contributing to the educational and career options that individuals consider to be available to them. Bandura (2012) claims that self-efficacy as a concept is significantly intertwined with personality type and, according to Borgen and Betz (2011), together these variables are key occupational choice influencers. Often perceptions, aspirations and expectations regarding particular disciplines and careers can be so embedded within an individual's psyche that alternative educational paths and occupational choices are not even considered. This is particularly evident within the context of gender.

Gender stereotypes are defined by Blakemore et al. (2008: 7) as 'beliefs about members of a particular group simply because they are members of that group'. Stereotypes regarding gender roles both in society and the labour market are often instilled at an early age. Zemor et al. (2000) found that children adopt stereotypes about gender before they learn stereotypes about any other societal group. Lawrence and Brown (1976) suggest that the effect of one's self-concept has a different effect on career maturity among young adults (twelfth graders – aged 17–19 years approximately) depending on gender, gender roles and race. Eagly et al. (2000: 127) define gender roles as 'shared expectations that apply to individuals on the basis of their socially identified sex'. In this instance, if an individual's gender role schema is particularly strong, then certain male-dominated occupations, like investment management, may not even be considered by women as a career option, and the decision to reject it is an unconscious one (Eccles, 1994).

Eccles et al. (1998) and Eccles (1994) caution that when examining an individual's perceived or actual ability to succeed, the exploration must be underpinned by the

occupation under examination. In the case of investment management, and in particular front office, ability in mathematics and a positive attitude towards mathematical and quantitative subjects rather than languages, for example, is essential. According to Sells (1980), mathematics is the 'critical factor' which limits access to high-income and high-status occupations like investment management. In examining the relationship between self-efficacy and mathematics, Uma et al. (2007), Quatman and Watson (2001), and Wilgenbusch and Merrell (1999) claimed that expectations regarding success in mathematics and related quantitative fields are significantly related to intentions to take up further study or undertake occupations that are quantitative and technical in nature. Watt (2004) and Wigfield and Eccles (2000) argued that, particularly in male-dominated technical fields, positive self-efficacy concerning mathematics is essential. Interestingly, they also found that men have a greater belief in their own ability than women within male-dominated environs. Nagy et al. (2006) supported this claim, arguing that, in fact, the higher self-efficacy observed amongst men begins within the early stages of the education system, where boys continue to have higher self-efficacy concerning mathematical ability than girls, and overall perceptions of mathematical abilities decline linearly throughout adolescence for both genders. This fact, coupled with the embedded societal stereotype that '[m]en are better at math than women are' (Nosek and Smyth, 2011: 1136) in terms of ability within the fields of mathematics (despite statistics illustrating that this is not the case), serves only to disengage women even further by undermining their beliefs regarding their own ability.

Personal Identity and Goals, and Educational and Occupational Choice

In developing an individual's self-perception of ability and success, Eccles (2009) states that formation of one's 'identity' is essential. Identity is a widely-used term in psychology and relates to both how an individual perceives themselves in terms of their skills and competencies, and their personal goals and values (Eccles, 2009). Stitt-Gohdes (1997: 12) suggests that one's identity within the workplace defines identity, the argument being that we are much more likely to be asked 'what do you do?' rather than 'who are you?' and, as such, this question determines our status in society. Eccles (1994) argues that educational and occupational choice is guided, and influenced significantly, by (a) an individual's expectations of achievement in a particular discipline and (b) the values attached to those achievements. A wide range of social, cognitive and biological factors influence the development of a person's identity, and this development differs significantly between the genders.

Cross and Madson (1997) sought to address how the gender development of young women differs from men and how their beliefs in their own abilities, skills and expectations for the future diverge. In line with Van Horen et al. (2008), they proposed that male and female self-concepts can be linked to the theory that women feel they belong to an 'interdependent' self-construal and define themselves through the relationships they have with others. Men's self-construct is of an 'independent' self where a clear boundary exists between themselves and others. For the interdependent construal, group goals are

considered more relevant and important, whereas within the independent construal, individual goals are the priority (Van Horen et al., 2008).

These theories may have validity when considering the absence of women in fields like investment management, where the emphasis is on personal targets, personal success, beating benchmarks and aggressive performance-driven goals rather than group-oriented goals. This, coupled with the constant societal message that 'boys are better' at mathematics and quantitative-related subjects, may help to explain why women are 'leaking from the pipeline' within investment management.

Individuals generally seek out programmes of study and occupations which they feel will assist them in achieving their personal goals. The choice to select a particular course of study or occupation is based on an individual's cost-benefit analysis of the options, where the task value of each option is considered. The task value, as defined earlier, relates to the degree to which one believes a task, role or occupation is worth pursuing (Eccles, 1994).

According to Eccles (1994), task value is comprised of four components: (i) utility value, (ii) intrinsic value, (iii) attainment value and (iv) cost of engaging in the task. Utility value refers to those tasks that facilitate attainment of long-term goals, which are usually externally recognised. Intrinsic value relates to an individual's interest, motivation and consequential enjoyment in undertaking a task, aptly described by Deci and Ryan (1985: 5) as 'independent ego energy'. The attainment value of the task relates to the personal values that an activity can provide and whether it assists the individual in achieving the self-image they have formed for themselves (Eccles et al., 1998). Markus and Nurius (1986) argued that self-image is based on a personal belief system and 'possible self' notion from which individuals make educational and occupational choices that facilitate successful achievement of the 'possible self.' Higgins (1987: 319) stated that self-image was comprised of three components: (i) real selves (ii) ideal selves and (iii) ought selves, where the ideal self is 'your representation of the attributes that someone (yourself or another) would like you, ideally, to possess (i.e. a representation of someone's hopes, aspirations, or wishes for you)' (Higgins, 1987: 321), and the ought self is described by Higgins (1987: 322) as 'your representation of the attributes that someone (yourself or another) believes you should or ought to possess (i.e. a representation of someone's sense of your duty, obligations, or responsibilities)'. Higgins (1987) claimed that individuals make life choices which assist them in moving from real selves to ideal and ought selves.

Attainment value and self-image are influenced by personal and collective identities and beliefs, and as individuals encounter more life experiences and social settings over time, these identities and beliefs may evolve significantly or embed deeply. Such experiences assist individuals in defining who they are, what they want to be and what they want to do in the future, which, in turn, directly influence educational and occupational choices (Eccles, 2009). Given that men and women have very different self-images, often heavily influenced by social stereotypes, various educational and career choices will have different attainment values attached. Dimond and Guzdial (2008) and Fisher and Margolis (2002) claim that women tend to have a higher attachment to social goals and their self-image is

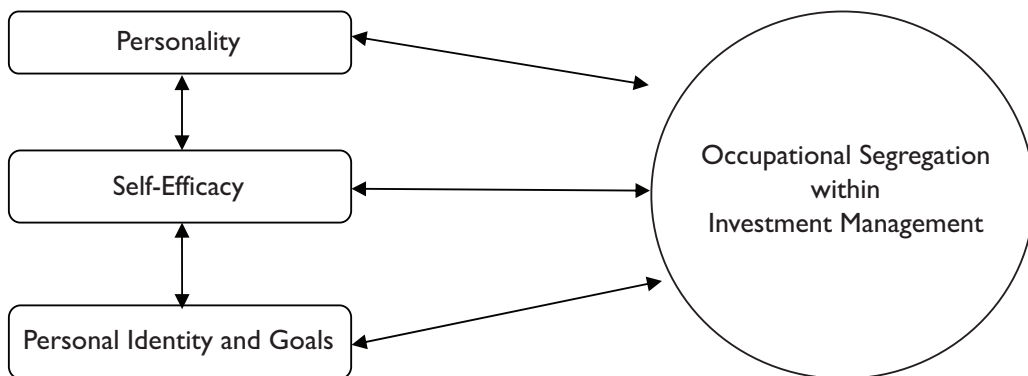
influenced heavily by this desire to help others, which is fulfilled in careers like teaching and nursing rather than investment management.

In a study by Jozefowicz et al. (1994), young adult (aged approximately 17–19 years) students were interviewed about their occupational aspirations. Their findings showed that girls felt that helping others was a key factor in choosing an occupation. In contrast, boys felt that a successful, well-paid job, which brought challenge and fame, was more important. Within the study, boys demonstrated a preference for working in mathematical and technical roles and all wanted to be leaders – all characteristics congruent with the culture of investment management (Jones, 1998). Bertrand et al. (2010) concurs with findings illuminating postgraduate females are less attracted to finance- and corporate-related occupations due to the individualistic, money-driven characteristics associated with them. Niederle and Vesterlund (2007) conclude that women are not attracted to highly competitive, high-pressure environments to the same extent as men, thus further embedding the barriers for those women trying to break into the hierarchical ranks of investment management.

CONCLUSION

The absence of women in front-office investment management is an important sectoral issue which needs to be addressed. Analysis of the individual factors which contribute to sex segregation is therefore critical to illuminating our understanding of educational and occupational choice within this context. From the review of the literature it is evident that individual factors may have validity as explanatory variables and, as such, provide the basis of a conceptual model illustrated in Figure 1.

Figure 1: Conceptual Model



The conceptual model indicates the three main clusters of individual factors which influence educational and occupational choice. The three clusters – namely personality, self-efficacy, and personal identity and goals – have a complex inter-relationship with each other and many sub-factors are connected across the clusters. As such, the cluster groups themselves are not mutually exclusive, and the conceptual model presented contains multidirectional

arrows between the clusters to illustrate this point. While this model does not illustrate the complexity of the interrelationships within the clusters it does provide a starting point for investigating formally the unexplained absence of women in investment management front-office roles.

Limitations and Future Research

This research was intentionally limited to the effect of individual factors on educational and occupational choice within investment management. The question of differences in the educational and occupational choices of men and women is complex, dynamic and reaches far beyond individual factors. As evidenced by Polavieja and Platt (2010: 23):

[T]he question of the major differences observed between girls' and boys' occupational preferences remain as intractable as the conundrum of why so many small girls like pink.

As a consequence, further research must span a wide range of disciplines such as economics, sociology, psychology and feminism in order to gain a more holistic perspective on the factors contributing to occupational segregation within investment management.

This paper is of a theoretical nature and, as such, specifically the scope exists for future research to empirically test the validity of the author's conceptual model derived from the literature. The sources of influence on self-efficacy, personal identity and personality – including social settings, gender identity, cultural influences and ethnic factors – also warrant future research in order to better understand the educational and occupational choices of young women within the domain of investment management.

REFERENCES

- Adya, M. and Kaiser, K.M. (2005) 'Early Determinants of Women in the IT Workforce: A Model of Girls' Career Choices', *Information Technology and People*, 18, pp. 230–59.
- Arnaboldi, F. and Casu, B. (2011) 'Corporate Governance in European Banking', Cass Business School working paper 01/11, City University London.
- Bacik, I. and Drew, E. (2006) 'Struggling with Juggling: Gender and Work/Life Balance in the Legal Professions', *Women's Studies International Forum*, 29, pp. 136–46.
- Bandura, A. (1977) 'Self-Efficacy: Toward a Unifying Theory of Behavioral Change', *Psychological Review*, 84, pp. 191–215.
- Bandura, A. (1997) *Self-Efficacy: The Exercise of Control*, New York: Freeman.
- Bandura, A. (2012) 'On the Functional Properties of Perceived Self-Efficacy Revisited', *Journal of Management*, 38, pp. 9–44.
- Barker, P.C. and Monks, K. (1998) 'Irish Women Accountants and Career Progression: A Research Note', *Accounting, Organizations and Society*, 23, pp. 813–23.
- Barrick, M.R. and Mount, M.K. (1991) 'The Big Five Personality Dimensions and Job Performance: A Meta-Analysis', *Personnel Psychology*, 44, pp. 1–26.
- Barrick, M.R. and Mount, M.K. (2005) 'Yes, Personality Matters: Moving on to More Important Matters', *Human Performance*, 18, pp. 359–72.

- BBC (2009) 'Men and the City?', *BBC London*, available from; <http://www.bbc.co.uk/london/content/articles/2009/03/12/city_men_feature.shtml>, accessed 2 January 2012.
- Bertrand, M., Goldin, C. and Katz, L.F. (2010) 'Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors', *American Economic Journal: Applied Economics*, 2, pp. 228–55.
- Blakemore, J.E.O., Berenbaum, S.A. and Liben, L.S. (2008) *Gender Development*, New York: Psychology Press.
- Borgen, F.H. and Betz, N.E. (2011) 'Integrating Self through Personality, Interests, and Self-Efficacy', in P.J. Hartung and L.M. Subich (eds.), *Developing Self in Work and Career: Concepts, Cases, and Contexts*, Washington DC: American Psychological Association.
- Borghans, L., Duckworth, A.L., Heckman, J.J. and Ter Weel, B. (2008) 'The Economics and Psychology of Personality Traits', *Journal of Human Resources*, 43, pp. 972–1059.
- Bowles, S., Gintis, H. and Osborne, M. (2001) 'The Determinants of Earnings: A Behavioral Approach', *Journal of Economic Literature*, 39, pp. 1137–76.
- Broadbridge, A.M., Maxwell, G.A. and Ogden, S.M. (2007) 'Students' Views of Retail Employment: Key Findings from Generation Ys', *International Journal of Retail and Distribution Management*, 35, pp. 982–92.
- Caplan, B. (2003) 'Stigler-Becker versus Myers-Briggs: Why Preference-Based Explanations Are Scientifically Meaningful and Empirically Important', *Journal of Economic Behavior and Organization*, 50, pp. 391–405.
- Cobb-Clark, D.A. and Tan, M. (2009) 'Non-Cognitive Skills, Occupational Attainment, and Relative Wages', IZA discussion paper series no. 4289, Bonn: Institute for Study of Labour.
- Cole, K., Daly, A. and Mak, A. (2009) 'Good for the Soul: The Relationship between Work, Wellbeing and Psychological Capital', *Journal of Socio-Economics*, 38, pp. 464–74.
- Costa Jr, P., Terracciano, A. and McCrae, R.R. (2001) 'Gender Differences in Personality Traits across Cultures: Robust and Surprising Findings', *Journal of Personality and Social Psychology*, 81, pp. 322–31.
- Cross, S.E. and Madson, L. (1997) 'Models of the Self: Self-Construals and Gender', *Psychological Bulletin*, 122, pp. 5–37.
- Dacre, J. (2008) 'Head to Head: Are There Too Many Female Medical Graduates? No', *British Medical Journal*, 336, pp. 748–9.
- Deci, E.L. and Ryan, R.M. (1985) *Intrinsic Motivation and Self Determination in Human Behavior*, New York: Plenum.
- Dimond, J.P. and Guzdial, M. (2008) 'More than Paradoxes to Offer: Exploring Motivations to Attract Women to Computing', Atlanta, GA: Georgia Institute of Technology.
- Donnellan, M.B. and Lucas, R.E. (2008) 'Age Differences in the Big Five across the Life Span: Evidence from Two National Samples', *Psychology and Aging*, 23, pp. 558–66.
- Eagly, A.H., Wood, W. and Diekmann, A.B. (2000) 'Social Role Theory of Sex Differences and Similarities: A Current Appraisal', in T. Eckes and H.M. Trautner (eds.), *The Developmental Social Psychology of Gender*, Mahwah, NJ: Erlbaum.

- Eccles, J.S. (1994) 'Understanding Women's Educational and Occupational Choices', *Psychology of Women Quarterly*, 18, pp. 585-609.
- Eccles, J.S. (2005) 'Studying Gender and Ethnic Differences in Participation in Math, Physical Science, and Information Technology', *New Directions for Child and Adolescent Development*, 2005(110), pp. 7-14.
- Eccles, J.S. (2007) 'Where Are All the Women? Gender Differences in Participation in Physical Science and Engineering', in S.J. Ceci and W.M. Williams (eds.), *Why Aren't More Women in Science?*, Washington DC: American Psychological Association.
- Eccles, J.S. (2009) 'Who Am I and What Am I Going to Do with my Life? Personal and Collective Identities as Motivators of Action', *Educational Psychologist*, 44, pp. 78-89.
- Eccles, J.S., Barber, B. and Jozefowicz, D.H. (1998) 'Linking Gender to Educational, Occupational, and Recreational Choices: Applying the Eccles et al. Model of Achievement-Related Choices', in W.B Swann, J.H. Langlois and L.A. Gilbert (eds.), *Sexism and Stereotypes in Modern Society: The Gender Science of Janet Spence*, Washington DC: American Psychological Association.
- European Commission (2007) *European Business: Facts and Figures*, Luxembourg: Office for Official Publications of the European Communities.
- European Commission (2008) *Report on Equality between Women and Men*, Luxembourg: Office for Official Publications of the European Communities.
- European Commission (2010) *More Women in Senior Positions – Key to Economic Stability and Growth*, Luxembourg: Office for Official Publications of the European Communities.
- Financial Services Ireland (2010) *The IFSC: The International Financial Services Sector in Ireland*, Dublin: Financial Services Ireland and Accenture.
- Fisher, A. and Margolis, J. (2002) 'Unlocking the Clubhouse: The Carnegie Mellon Experience', *ACM SIGCSE Bulletin*, 34(2), pp. 79-83.
- Forfás (2008) *Future Skills and Research Needs of the International Financial Services Industry*, Dublin: Forfás.
- Foskett, N., Dyke, M. and Maringe, F. (2008) 'The Influence of the School in the Decision to Participate in Learning Post-16', *British Educational Research Journal*, 34, pp. 37-61.
- Furnham, A. and Fudge, C. (2008) 'The Five Factor Model of Personality and Sales Performance', *Journal of Individual Differences*, 29, pp. 11-16.
- Gelissen, J. and de Graaf, P.M. (2006) 'Personality, Social Background, and Occupational Career Success', *Social Science Research*, 35, pp. 702-26.
- Ham, R., Junankar, P.N.R. and Wells, R. (2009) 'Occupational Choice: Personality Matters', IZA discussion paper no. 4105, Bonn: The Institute for the Study of Labor (IZA).
- Heckman, J.J. and Magistralis, L. (2009) 'Investing in Our Young People: Lessons from Economics and Psychology', *Rivista Internazionale di Scienze Sociali*, 117, pp. 365-86.
- Heckman, J.J. and Rubinstein, Y. (2001) 'The Importance of Noncognitive Skills: Lessons from the GED Testing Program', *American Economic Review*, 91(2), pp. 145-9.
- Heckman, J.J., Stixrud, J. and Urzua, S.S. (2006) 'The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior', *Journal of Labor Economics*, 24, pp. 411-82.

- Hegewisch, A., Liepmann, H., Hayes, J. and Hartmann, H. (2010) 'Separate and Not Equal? Gender Segregation in the Labor Market and the Gender Wage Gap', Institute for Women's Policy Research briefing paper, Washington DC: Institute for Women's Policy Research.
- Hess, B.B. and Ferree, M.M. (1987) *Analyzing Gender: A Handbook of Social Science Research*, Newbury Park, CA: Sage Publications.
- Higgins, E.T. (1987) 'Self-Discrepancy: A Theory Relating Self and Affect', *Psychological Review*, 94, pp. 319–40.
- Hopkins, E. (1986) 'The Young and the Sleepless: The Macho Men (and Women) of Investment Banking', *New York*, 19, pp. 70–9.
- International Labour Organization (2004) *Breaking through the Glass Ceiling: Women in Management*, Geneva: International Labour Organization.
- Jones, A. (1998) '(Re)producing Gender Cultures: Theorizing Gender in Investment Banking Recruitment', *Geoforum*, 29, pp. 451–74.
- Jozefowicz, D.M., Barber, B.L., Eccles, J.S. and Mollasis, C. (1994) 'Relations between Maternal and Adolescent Values and Beliefs: Gender Differences and Implications for Occupational Choice', paper presented at the Biennial Meeting of the Society for Research on Adolescence, February, San Diego, CA.
- Kay, F. and Gorman, E. (2008) 'Gender in the Legal Profession', *Annual Review of Law and Social Sciences*, 4, pp. 299–332.
- Krueger, A.B. and Schkade, D. (2008) 'Sorting in the Labor Market: Do Gregarious Workers Flock to Interactive Jobs?' *Journal of Human Resources*, 43, pp. 859–83.
- Larose, S., Ratelle, C.F., Guay, F., Senécal, C. and Harvey, M. (2006) 'Trajectories of Science Self-Efficacy Beliefs During the College Transition and Academic and Vocational Adjustment in Science and Technology Programs', *Educational Research and Evaluation*, 12, pp. 373–93.
- Larson, L.M., Rottinghaus, P.J. and Borgen, F.H. (2002) 'Meta-Analyses of Big Six Interests and Big Five Personality Factors', *Journal of Vocational Behavior*, 61, pp. 217–39.
- Lawrence, W. and Brown, D. (1976) 'An Investigation of Intelligence, Self-Concept, Socio-economic Status, Race, and Sex as Predictors of Career Maturity', *Journal of Vocational Behavior*, 9, pp. 43–52.
- Lewis, M. (1989) *Liar's Poker: Two Cities, True Greed*, London: Hodder and Stoughton, available from: <http://joomlaserverhost.com/misctradebooks/Michael%20Lewis%20-%20Liar's%20Poker_investing_%2B_found_at_redsamara.com.pdf>, accessed 17 December 2012.
- Lichfield, J. (2011) 'Christine Lagarde: "There Should Never Be Too Much Testosterone in One Room"', *The Independent*, 7 February, available from: <<http://www.independent.co.uk/news/people/profiles/christine-lagarde-there-should-never-be-too-much-testosterone-in-one-room-2206357.html>>, accessed 10 July 2012.
- Lyons, R.K., Chatman, J.A. and Joyce, C.K. (2007) 'Innovation in Services: Corporate Culture and Investment Banking', *California Management Review*, 50, pp. 174–91.
- Markus, H. and Nurius, P. (1986) 'Possible Selves', *American Psychologist*, 41, pp. 954–69.

- McCrae, R.R. and Costa, P.T. (2003) *Personality in Adulthood: A Five-Factor Theory Perspective*, New York: Guilford Press.
- McDowell, L. (1997) *Capital Culture: Gender at Work in the City*, Oxford: Wiley-Blackwell.
- McLean, B. (2005) 'Where the Girls Aren't - A Report from the Front Lines of One of the Toughest Businesses for Women to Crack: The Hedge Fund Industry', *Fortune*, 14 November, available from: <http://money.cnn.com/magazines/fortune/fortune_archive/2005/11/14/8360699/>, accessed 2 January 2012.
- Mueller, G. and Plug, E. (2006) 'Estimating the Effect of Personality on Male and Female Earnings', *Industrial and Labor Relations Review*, 60, pp. 3-22.
- Murphy, M. (2012) 'Gender, Governance and the Irish Crisis', TASC Thinkpieces, May, available from: <<http://www.tascnet.ie/upload/file/MurphyGenderGovernance.pdf>>, accessed 10 July 2012.
- Nagy, G., Trautwein, U., Baumert, J., Köller, O. and Garrett, J. (2006) 'Gender and Course Selection in Upper Secondary Education: Effects of Academic Self-Concept and Intrinsic Value', *Educational Research and Evaluation*, 12, pp. 323-45.
- Niederle, M. and Vesterlund, L. (2007) 'Do Women Shy Away from Competition? Do Men Compete Too Much?', *Quarterly Journal of Economics*, 122, pp. 1067-101.
- Niessen, A. and Ruenzi, S. (2006) 'Sex Matters: Gender and Mutual Funds', Centre for Financial Research CFR working paper no. 06-01, University of Cologne.
- Nosek, B.A. and Smyth, F.L. (2011) 'Implicit Social Cognitions Predict Sex Differences in Math Engagement and Achievement', *American Educational Research Journal*, 48, pp. 1125-56.
- Ogden, S.M., McTavish, D. and McKean, L. (2006) 'Clearing the Way for Gender Balance in the Management of the UK Financial Services Industry: Enablers and Barriers', *Women in Management Review*, 21, pp. 40-53.
- Ozbilgin, M.F. and Woodward, D. (2004) '"Belonging" and "Otherness": Sex Equality in Banking in Turkey and Britain', *Gender Work and Organization*, 11, pp. 668-88.
- Ozer, D.J. and Benet-Martinez, V. (2006) 'Personality and the Prediction of Consequential Outcomes', *Annual Review of Psychology*, 57, pp. 401-21.
- Parsons, T. (1942) 'Age and Sex in the Social Structure of the United States', *American Sociological Review*, 7, pp. 604-16.
- Polavieja, J. and Platt, L. (2010) 'Girls Like Pink: Explaining Sex-Typed Occupational Aspirations amongst Young Children', UFAE and IAE working papers 844.10, Madrid: Unitat de Fonaments de l'Anàlisi Econòmica (UAB) and Institut d'Anàlisi Econòmica (CSIC).
- Prospects (2008) 'Financial Trader: Job Description', *Prospects*, July, available from: <http://www.prospects.ac.uk/financial_trader_job_description.htm>, accessed 17 January 2012.
- Quatman, T. and Watson, C.M. (2001) 'Gender Differences in Adolescent Self-Esteem: An Exploration of Domains', *Journal of Genetic Psychology*, 162, pp. 93-117.
- Rosenbloom, J.L., Ash, R.A., Dupont, B. and Coder, L.A. (2008) 'Why Are There So Few Women in Information Technology? Assessing the Role of Personality in Career Choices', *Journal of Economic Psychology*, 29, pp. 543-54.

- Schmitt, D.P., Realo, A., Voracek, M. and Allik, J. (2008) 'Why Can't a Man Be More Like a Woman? Sex Differences in Big Five Personality Traits across 55 Cultures', *Journal of Personality and Social Psychology*, 94, pp. 168–82.
- Scholarios, D. and Taylor, P. (2010) 'Gender, Choice and Constraint in Call Centre Employment', *New Technology, Work and Employment*, 25, pp. 101–16.
- Sells, L.W. (1980) 'The Mathematics Filter and the Education of Women and Minorities', in L.H. Fox, L. Brody and D. Tobin (eds.), *Women and the Mathematical Mystique*, Baltimore, MD: Johns Hopkins University Press.
- Stitt-Gohdes, W.L. (1997) 'Career Development: Issues of Gender, Race and Class', ERIC Information Series No. 371, Columbus, OH: ERIC Clearinghouse on Adult, Career and Vocational Education.
- Turco, C.J. (2010) 'Cultural Foundations of Tokenism', *American Sociological Review*, 75, pp. 894–913.
- Twomey, A.M. and Linehan, M. (2002) 'Career Progression of Young Female Accountants: Evidence from the Accountancy Profession in Ireland', *Journal of European Industrial Training*, 26, pp. 117–24.
- Uma, T., Adriana, J. and Updegraff, K.A. (2007) 'Latino Adolescents' Mental Health: Exploring the Interrelations among Discrimination, Ethnic Identity, Cultural Orientation, Self-Esteem, and Depressive Symptoms', *Journal of Adolescence*, 30, pp. 549–67.
- Van Horen, F., Pöhlmann, C., Koeppen, K. and Hannover, B. (2008) 'Importance of Personal Goals in People with Independent versus Interdependent Selves', *Social Psychology*, 39, pp. 213–21.
- Wakefield, R.L. (2008) 'Accounting and Machiavellianism', *Behavioral Research in Accounting*, 20, pp. 115–29.
- Watt, H.M.G. (2004) 'Development of Adolescents' Self Perceptions, Values, and Task Perceptions According to Gender and Domain in 7th through 11th Grade Australian Students', *Child Development*, 75, pp. 1556–74.
- Weisgram, E.S., Bigler, R.S. and Liben, L.S. (2010) 'Gender, Values, and Occupational Interests among Children, Adolescents, and Adults', *Child Development*, 81, pp. 778–96.
- Wilgenbusch, T. and Merrell, K.W. (1999) 'Gender Differences in Self-Concept among Children and Adolescents: A Meta-Analysis of Multidimensional Studies', *School Psychology Quarterly*, 14, pp. 101–20.
- Wigfield, A. and Eccles, J.S. (2000) 'Expectancy-Value Theory of Achievement Motivation', *Contemporary Educational Psychology*, 25, pp. 68–81.
- Zahidi, S. and Ibarra, H. (2010) *The Corporate Gender Gap Report 2010*, Geneva: World Economic Forum.
- Zemore, S.E., Fiske, S.T. and Kim, H.J. (2000) 'Gender Stereotypes and the Dynamics of Social Interaction', in T. Eckes and H.M. Trautner (eds.), *The Developmental Social Psychology of Gender*, Mahwah, NJ: Lawrence Erlbaum Associates.

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