Situational Retirement Intentions and Retirement Planning: Taking a Macro, Miso and Micro

Perspective

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DECLARATION

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Retirement Intentions:

The Current State of the Literature

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Abstract

Abolished mandatory retirement, progressive aging of the Baby-Boomer cohort, and the general trend toward longevity have prompted Governments and social-security systems around the world to shift the financial responsibility of retirement from the state to the individual. More research is needed around individual propensities to engage in the retirement planning process, and workplace conditions that might facilitate or debilitate the intention to retire. Evidence consistently indicates that many individuals are insufficiently prepared for their life after retirement. Consideration of the multiple personal, work and social factors involved in retirement planning suggests that Organisational Psychologists are ideally placed to determine how such factors are likely to inhibit or promote retirement planning, and to use these to inform effective interventions and encourage resource accumulation before and during retirement.

Keywords: retirement intentions, retirement predictors, retirement planning

An Overview

As a result of the progressive aging of the Baby-Boomer Generation and labour force, a vast and diverse body of literature on retirement exists across political, human resource and socio-economic domains. An annual review of psychological research on *retirement* using Google Scholar yields over 1,220,000 results and within psychological literature, the same key term yields over 7,000 results on the Psych-INFO database (Wang & Shi, 2014). The following review focusses on retirement decisions, particularly intentions and planning.

Retirement is recognised as a process unfolding over time which begins well before the actual event and continues long after (Adams & Rau, 2011). The process consists of a preretirement phase which includes planning, followed by a retirement decision phase, and lastly a postretirement phase including the adjustment period. The Australian Bureau of Statistics indicates that people may cycle in and out of the retirement process, revisiting the cycle of decision-making (ABS, 2016). Research illustrates the significance of the initial phase, emphasising how crucial preretirement planning is for the success of the retirement decision and the retirement adjustment period (Adams & Rau, 2011). Overall, retirement is understood as a complex phenomenon involving an array of factors that relate to the preparatory stage and that impact individuals' decisions to retire and its consequences (Ekerdt, 2010; Feldman, 2012; Feldman & Beehr, 2011; Szinovacz, 2013; Topa, Moriano, Depolo, Alcover, & Morales, 2009; Wang & Shi, 2014).

Retirement as an International Challenge

As Governments deal with the economic and social realities (e.g., the increasing cost of health care) of an aging population created by the rise of the Baby-Boomer Generation, there is a significant push globally for individuals to take responsibility for their own retirement welfare in terms of what advice they obtain, when they retire, under what circumstances and how they might plan and prepare (Mermin, Johnson, & Murphy, 2007). A

significant societal and global challenge will be to equip an aging cohort with the necessary skills and capabilities to engage in the retirement planning process and remain independent (Adams & Rau, 2011; Gruber & Wise, 2000; Hershey, Jacobs-Lawson, & Austin, 2013). Economies worldwide also recognise that people are living longer (Van Solinge & Henkens, 2009). As such, in the future more people will be experiencing retirement for longer, but many will find themselves unprepared for the independent living and associated financial challenges. Literature on retirement planning documents that in many countries around the world, most individuals undertake little to no planning for their retirement (ABS, 2016; Adams & Rau, 2011; Ekerdt, Hackney, Kosloski, & DeViney, 2001; Hershey et al., 2013; Lusardi & Mitchell, 2007a, 2007b; Shanmugam & Zainal-Abidin, 2013). From a community cost perspective having to fund significant numbers of simultaneous retirements over long periods of time will become a significant problem particularly in advanced economies, placing increasing pressure on Government social-security systems (Gruber & Wise, 2000; Hershey et al., 2013; Laitner & Sonnega, 2013; Wang & Shultz, 2010).

According to The World Bank (TWB, 2017a) Australia's age dependency ratio (the ratio of working to non-working individuals aged 65+ in a community) rose over 7% in only the last few decades and in the US the same age dependency ratio rose over 6% (TWB, 2017b). Many western countries therefore are investigating new policy initiatives that shift responsibility for retirement saving from the State, to the individual. Considering the global magnitude of these effects and the challenges confronting future generations, researcher interest in facilitating better retirement decision-making is increasing (Bal, De Jong, Jansen, & Bakker, 2012; Wang & Shultz, 2010). Research examining factors which predispose individuals to take responsibility for their retirement welfare is limited and a more comprehensive exploration of these factors is needed (Denton & Spencer, 2009).

Post, Schneer, Reitman and Ogilvie (2013) suggest organisational psychological research is ideally placed to assist in better understanding and managing employees' retirement decisions, to benefit organisational productivity and the overall viability of Government social-security systems. Post et al., (2013) appreciate that employees' relationships to retirement decisions (e.g., their expected retirement age and the associated precipitating factors) are likely to change, particularly depending on organisational and career context. Given that the process of retirement is rapidly evolving, Organisational Psychologists are uniquely positioned to assess and identify the dynamics behind the changing face of retirement (Shultz & Wang, 2011).

The Need for More Comprehensive Interventions

In attempting to create and deliver workplace interventions consultants and policy makers cannot apply a one size fits all approach. Recent retirement trends indicate a need for more effective retirement interventions, particularly as the Baby-Boomer Generation nears retirement. Researchers conclude that there are too few intervention options most of which lack adequacy and suitability (Baxter et al., 2016; Hershey, Mowen, & Jacobs-Lawson, 2003), suggesting opportunities for retirement interventions to be redesigned contingent on various workplace variables. Wang and Shultz (2010) indicate that although issues of aging and work have been previously examined, research has failed to thoroughly apply employee retirement decision-making processes to intervention design. The opportunity exists to add to facilitate the process of retirement planning through evidenced based retirement interventions (Earl, Muratore, Leung & Yu, 2015).

The consequences of a lack of planning are evidenced in inequalities among retired populations (in health, wealth and overall quality of life) indicative of sub-optimal interventions (Fernandes, Lynch, & Netemeyer, 2014). Most attempts to intervene in the

retirement process are centred around financial planning and physical activity, both of which have negligible effects on retirement behaviour approximately 20 months or more after the intervention (Fernandes et al., 2014). The literature supports the need for better designed programs that increase retirement planning behaviours by encompassing a holistic planning approach (i.e., personal financial preparations to optimise post retirement wealth, personal-non-financial preparations to maintain health and wellbeing and engagement in Government benefits to promote health, wealth and wellbeing in later life) (Hershey et al., 2003).

Bayer, Bernheim and Scholz (2009) and Bernheim and Garrett (2003) argue for research to examine how different groups might be impacted by financial education so interventions can be tailored to individual contexts. The few outcome studies that examined the effect of retirement interventions on behaviour have shown limited success (Hershey et al., 2003). One potential explanation is that researchers have focused on too few significant variables. There is growing support for the need to customise retirement planning interventions by better understanding and expanding on the factors already known to impact retirement decisions in order to enhance the efficacy of future retirement schemes (Hershey et al., 2003; Muratore & Earl, 2010).

The sparsity of interventions allows little opportunity to contrast and compare effectiveness among and within different work sub-groups. Evidence suggests that some types of retirement interventions are likely to be more effective among certain work groups than others. For example, the Google search term "retirement planning for lawyers" revealed significant implications for the retirement planning and preparatory field; on one hand the search generated retirement support material that emphasised key terms such as "more than just wealth", "money is not enough" and "there are also the dimensions of mental-health, as well as social and psychological factors" [presented by the Lawyers Assistance Program for retirement (LAP, 2012)]; alternatively the same search term also generated material titled

"What Every Lawyer Needs to Know About Planning for Retirement" that featured the key terms "how much to save", "social-security benefits", "economic considerations" and "individual retirement account plans" [published by the American Bar Association (Sharp, 2014)]. This suggests retirement advisory stakeholders may already be aware of the differences in retirement planning that exists between different work-groups (i.e., that they likely hold different ideas of what retirement planning encompasses).

It is apparent retirement planning efforts targeted towards lawyers have begun to intentionally introduce and focus on physical and mental-health preparations, attempting to go beyond financial wealth considerations only. Perhaps the retirement advisory stakeholders responsible for the provision of such support material (i.e., the American Bar Association vs. the Lawyers Member Association Assistance Program), intentionally design more wholistic planning approaches because lawyers largely regard *successful retirement* as only financial wealth, and possibly fail to acknowledge the significance of other aspects of retirement planning. Establishing whether this is the case will enable law societies (for example) to advise and educate their members on a more wholistic retirement planning approach tailored to individual needs. This kind of research provides a model for other interventions tailored to different occupations depending on priorities relevant to their retirement process. For example, research on lawyers also reveals that some tend to drop back to part-time work, or even move onto different careers before completely exiting the work force through retirement (Sharp, 2014). This illustrates how particular work groups may vary in response to the retirement process (Cahill, Giandrea, & Quinn, 2013; Kim & DeVaney, 2005). Although psychology has contributed to understanding and addressing the retirement process, there are further opportunities for Organisational Psychologists to research and apply findings to the design of interventions and to begin the process earlier in the work life-cycle and throughout one's working life (Adams & Rau, 2011; Muratore & Earl, 2010).

Psychological Models for Understanding the Retirement Process

Psychological research employs a number of psychological models to clarify the retirement process, its antecedents and outcomes. According to the Process of Retirement Planning Model (Noone, Stephens, & Alpass 2010) despite a significant portion of the Western World approaching retirement, many still remain unprepared, and little is known about how individuals prepare for this life stage (Noone et al., 2010). The model asserts that individuals first develop an awareness around the issue (i.e., the need for retirement welfare preparation), they set goals accordingly, make a decision to begin preparing and finally employ the necessary behaviours to achieve these planned goals. The model focuses on planning in the following domains: finances, lifestyle, health and psychosocial factors. The Temporal Process Model defines the retirement process as consisting of a planning phase, a decision phase, and an adjustment phase (Wang & Shi, 2014). The model particularly emphasises the initial preretirement preparatory and planning phase where individuals are responsible for organising their resources to serve their retirement needs. The Multilevel Model of Retirement theorises that individual behaviours throughout the retirement process are influenced by macro (broad, global), miso (group, communal) and micro (single, individual) level factors (Wang & Shi, 2014). It serves as a theoretical framework that examines potential antecedents useful for understanding and predicting the retirement process.

However these models have focused on the same traditional variables that researchers assumed are the main factors in the retirement decision process (i.e., finance and demographics including age, gender, ethnicity, education, health, marital status etc.,) (Hershey, Henkens, & Van Dalen, 2010; Wang & Shi, 2014). To date research has mostly focused on modelling the influences of these variables and particularly health and wealth which have been the most widely studied predictors of early retirement (Beehr & Bennett,

2015; Fisher, Chaffee, & Sonnega, 2016; Laitner & Sonnega 2013; Nga & Ken, 2013; Noone et al., 2010; Shanmugam & Zainal-Abidin, 2013; Wang & Shi, 2014).

Compared to the wealth of knowledge in these areas however (e.g., ill-health and higher incomes are well established predictors of early retirement) the potential impact of organisational and individual work related factors on an individual's intention to retire are yet to be explored (i.e., within a multilevel macro, miso and micro framework). Despite research suggesting a number of ways in which organisational factors can affect early retirement decisions (Adams, Prescher, Beehr, & Lepisto, 2002; Feldman, 1994; Shacklock & Brunetto, 2005; Van Dam, Van der Vorst, & Van der Heijden, 2009) research also reveals that situational (multilevel) factors such as organisational size and structure, occupational role, workplace policies and procedures etc., are frequently overlooked in terms of their ability to influence work outcomes. For example, only recently have researchers introduced the idea of *job embeddedness* factors (the collection of tangible work forces) and characteristics of one's preretirement work and organisation as having important implications for the retirement process (Tanova & Holtom, 2008; Wang & Shi, 2014).

Understanding work related factors and their potential interactive impact on retirement decisions will assist Organisational Psychologists and workplace consultants in the provision of retirement support interventions for organisations (e.g., succession planning, workplace programs which encourage more wholistic retirement planning for individuals, and modifications to organisational policies and procedures which may allow workers to remain in the job for longer, thus relieving pressure on social-security systems). Applying a multilevel model of retirement in an organisational-work context allows researchers and practitioners to consider variables from various levels of work that can assist planning for retirement.

The Macro-level Context: The Influence of Organisational Size

In assessing situational work factors that can impact workers' retirement intentions we first consider a macro-level construct, organisational size (i.e., the number of employees in an organisation). While no explicit evidence directly links organisational size and retirement intentions, latent variable research suggests it is an underlying factor significantly influencing workers' propensity to retire sooner rather than later in larger organisations (Chew & Chan, 2008; French & Jones, 2011; Herrbach, Mignonac, Vandenberghe, & Negrini, 2009; Zappalà, Depolo, Fraccaroli, Guglielmi, & Sarchielli, 2008). Organisational size prescribes two fundamental organisational constructs, structure and culture, which research has linked to micro-level work related factors such as job satisfaction and organisational commitment, and their tendency to influence workplace withdrawal behaviours such as absenteeism, resignation and turnover (Chan, Gable, & Sedera, 2003; Chew & Chan, 2008; Herrbach et al., 2009; Narman, Johnson, & Gingnell, 2016). However, little empirical research has examined the impact organisational size (particularly in small businesses) may have on individual work outcomes including retirement (Gray, Densten, & Sarros, 2003). As such, there is a need to address the current gap in the literature by examining whether the macro-level factor, organisational size, has the ability to influence such work outcomes in the same or different ways between small-large organisations.

Research showing the impact of organisational size on retirement intentions has identified a number of critical variables. For example, small ($n < 100$) and large ($n > 100$) organisations typically differ in terms of available resources i.e., money, expertise and time (French & Jones, 2011). This sees smaller organisations implementing atypical policies, plans and procedures compared to larger firms who have greater access to superior resources (Chew & Chan, 2008; Herrbach et al., 2009). Acevedo (2016) reported that economies of scale prevent most small businesses from being able to afford and implement various

mainstream policies, in particular retirement plans (Acevedo, 2016); "the range of choices and the complexity of the plans themselves often overwhelm small business owners" (Acevedo, 2016, p. 39). Jeszeck (2013) reported that only 14% of small businesses sponsor retirement plans of any kind, with adverse implications including reduced employee propensity to remain in smaller firms due to policy dissatisfaction, or increased difficulty ceasing fulltime work due to lack of organisational support in the retirement setup (Jeszeck, 2013). Bayer et al., (2009) assessed the impact of workplace financial education on the uptake of employee retirement behaviours and found that multiple retirement pathways were typically offered in large organisations due to internal HR expertise and access to external expert consultancies (Bayer et al., 2009).

DeSilva (2016) reports many small businesses find developing and administering retirement packages overwhelming, yet they remain a critical asset for both attracting and *retaining* long-term quality talent who drive small business success and are a vital source of competitive advantage. According to DeSilva (2016) small businesses are typically at risk of losing talented employees to larger organisations who have the available resources (internal expertise and access to external consultants) to design and implement superior retirement plans that meet the diverse needs of their many employees. Small businesses typically offer less elaborate plans that attain less individual fit and demand certain compliance requirements (e.g., employer contribution). However, small business retirement plans can provide value to their respective employees and to the organisation itself by being simpler to develop and administer (e.g., they typically are not subject to annual non-discrimination tests, as required by larger corporations' specialised retirement plans) (DeSilva, 2016).

French and Jones (2011) assessed the effects of employer provided health insurance on retirement behaviour and concluded it was an important factor in understanding the retirement decision. The researchers indicate that the value a typical worker placed on

employer provided health insurance, was explained by the proportional value placed on the reduced risk of medical expenses. Their study demonstrates how organisations can impact retirement decisions, and how employer support can promote engagement in the retirement planning and preparatory process.

Chew and Chan (2008) along with Cardon and Steven (2004) assessed the impact a firm's ability to implement favourable HR practices had on employee intentions to stay in an organisation (promoting perceived employer support). Results revealed both organisational commitment and intention to stay to be positively affected by HR practices, person-organisation fit, remuneration, recognition, and opportunity to undertake challenging large employment assignments. Likewise, Herrbach et al., (2009) assessed the potential impact HR practices might have on individual retirement intentions and organisational commitment; the sample of 514 French managers revealed the deployment and implementation of favourable HR practices (e.g., the provision of employee training and development programs) prolonged individual intentions to retire (i.e., reduced early voluntary retirement) and enhanced organisational commitment. Despite this, Herrbach et al., (2009) also found that HR practices such as flexible working conditions (typical of small organisations) and the implementation of mentoring and coaching initiatives (assignment of older workers to new roles) had no impact on retirement intentions.

Whilst large corporate firms may offer incentives like pay advancements, company products or services, bonuses and merit raises, small firms are able to offer flexibility around other incentives such as paid sick leave, holidays, annual bonuses, health insurance and employee saving plans, making it easier to stay at work for longer (i.e., through a more personal approach allowing for consideration of individual circumstances) (Kerin, 2015; Patel & Conklin, 2012). While larger firms are likely to base differences in pay on working conditions such as surplus hours worked, level of supervision, and decision-making

responsibilities, small firms are able to cultivate a more relaxed environment including training and development administered in an informal fashion and on a voluntary basis (Patel & Conklin, 2012). This type of organisational culture allows for closer employee and employer relationships, and greater opportunities to make decisions that positively impact employee satisfaction, influencing turnover behaviours (Kerin, 2015).

For example, Feldman (1994) asserted that larger firms (e.g., manufacturing organisations) would be unlikely to provide programs which entice older workers to remain in their jobs (e.g., opportunities for mentoring and coaching younger employees, flexibility of work schedules and opportunities for trial retirements) if such polices go against the overall corporate goal of decreasing employment due to automation (Feldman, 1994). According to Acevedo (2016) large scale automotive organisations typically push their workers to an early retirement in order to downsize and simplify their workforce due to increasing automation. Incentivising early retirements financially are the least *painful* way to accomplish this goal rather than large-scale layoffs.

More recent evidence in the field by Silver, Hamilton, Biswas and Warrick (2016) found that for some medical practitioners in general practice (small organisations) retirement may be delayed if it is perceived a replacement cannot be found (Silver et al., 2016). This is reflective of individual organisational commitment which is likely fostered by the intimate work environment and culture that typically exists within small businesses (Wijeratne, Earl, Peisah, Luscombe, & Tibbertsma, 2017). In larger organisations the concern for replacement may not be as prevalent due to their access to more competing colleagues able to replace another team member and less concern for individuals in larger workplaces.

Gray et al., (2003) explored the impact organisational size may have on employee perceptions of organisational culture and found that small organisations ($n < 100$) were

perceived to be significantly more supportive and innovative compared to large organisations, with anticipated organisational outcomes, such as increased tenure and retention rates (Gray et al., 2003). Schein (2010) postulates culture to be one of the most powerful organisational constructs accounting for many organisational outcomes, strongly influencing employee satisfaction and ultimately withdrawal behaviours such as turnover, including retirement (Schein, 2010). Gray et al., (2003) asserted that organisational culture constrains and directs individual *behaviour* and *decision-making*, with a profound ability to influence withdrawal tendencies.

Mixed results create the impetus to further explore the components and determinants of the intention to remain in work; leading Herrbach et al., (2009, p. 895) to propose that "voluntary early retirement should be incorporated as a major outcome in future organisational behaviour research". Further research is needed to verify the relationship in small and large organisations.

The Miso-level Context: The Influence of Industry and Occupation

When considering miso-level factors, it is possible that due to professional work training some people may be better equipped to plan for retirement than others. For example, accountants may be better prepared than doctors due to their roles requiring higher levels of financial literacy, a good predictor of effective financial decision-making (Huston, 2010). Research shows financially literate individuals make better-informed financial decisions, fewer financial mistakes and generally engage in *smarter* investment behaviours compared to those less financially literate. As early as 1993, researchers suggested a link between disciplinary backgrounds and individual decision-making propensity and competence; in particular, correlations were found between economic disciplines and effective cost-benefit thinking and subsequent decision-making (Larrick, Nisbett, & Morgan, 1993). Although recent research illustrates these general relationships between financial

literacy, behavioural finance and psychological investing (Fernandes et al., 2014; Shefrin, 2002) less work has examined how different disciplinary backgrounds may influence decision-making propensities.

Several studies identify financial literacy to be a good predictor of effective financial decision-making and well-informed retirement planning (Almenberg & Save-Soderbergh, 2011; Lusardi & Mitchell, 2007a, 2007b). Lusardi and Mitchell (2011) found that those who score higher on financial literacy (i.e. evidenced by financial accreditations) are more inclined to plan for retirement with the likelihood of being better positioned financially for old-age (Lusardi, 2008; Lusardi & Mitchell, 2011a, 2011b). Likewise, Van-Rooij, Lusardi and Alessie (2011) found an overwhelmingly positive relationship between financial knowledge and retirement planning and that ignorance around basic financial concepts could be linked to a lack of retirement planning. Van-Rooij et al., (2011) also found that the average household (average income and no superior financial accreditations) lacked financial knowledge and the ability to make informed financial decisions, in particular how to save and invest adequately for retirement. These studies identified a link between financial literacy and knowledge acquired, to financial planning (Lusardi & Mitchell, 2007a, 2007b; Van-Rooij et al., 2011). Overall, both studies concluded that individuals with less financially literate backgrounds are less likely to make proactive and effective financial retirement decisions with the implication that such people need access to financial expertise, as it is unlikely they will learn it themselves.

Recent studies in the field of behavioural finance suggest that when analysing economic variables individuals tend to retain and effectively process information that is consistent with their preferences, and tend to disregard or ignore parts of the information that is viewed as unfamiliar. For example, individuals who are not financially literate might typically fail to consider essential elements of information during the financial decision-

making process, failing to make optimal financial decisions (Garcia, 2013). Bernheim and

Garrett (2003) assert that individuals within financial sectors tend to be like-minded,

financially literate individuals, who identify with an ability to engage in financial planning

and investment behaviours. This study, along with other research in behavioural finance,

concludes that there is a need for Governments to provide the general public (outside of

formal financial sectors) with financial and economic education. Such educational programs

are based on the traditional view of behavioural finance, that individuals require financial

education to effectively interpret and process economic and financial information, (Garcia,

2013) without which they often fail to save enough for retirement, overinvest in risky or

overly safe assets, or fail to take advantage of certain tax benefits. They may even choose not

to engage with the formal financial sector at all, because financially proactive behaviour is

becoming increasingly complex for those without financial expertise. The general increase in

accessibility and complexity of products and services (such as pension plans, access to credit,

health insurance schemes etc.,) has placed increasing weight on individual financial

competence, such as whether to take out private retirement insurance, and how much to save

etc., (Garcia, 2013).

Jaworski, Reed, and Vernon (2016) believe that individuals qualified in *numerically*

oriented disciplines more readily interpret and process numerical information, tend to be

more perceptive to signs of risk, and are particularly resistant to common layman decision

biases (such as the effects of framing i.e., avoiding risk when a positive frame is presented

and seeking risk when a negative frame is presented). This is believed to significantly impact

retirement investment decisions (Jaworski et al., 2016). Jaworski et al., (2016) suggest that

individuals who are not highly skilled in numerical disciplines (or qualified in financially

oriented industries) are likely to be unmotivated and unable to accurately project their

retirement needs, and consequently depend on their "workplaces' retirement related attitudes" to direct their decisions and subsequent behaviours (Jaworski et al., 2016, p.11).

Wagner (2015) reports that most financial-educational interventions' shortcomings (identified as failure of employee uptake of financial behaviours as instructed by employers) can be explained by individual differences and the exposure effect; those who acquire the needed skills and knowledge do so through their employment within a relevant industry. Individual understanding and inclination to exercise financial behaviours therefore, is probably less reliant on formal instruction or intervention (Wagner, 2015). Similarly, Fernandes et al., (2014) found that interventions implemented by employers to improve financial literacy explained only 0.1% of the variance in financial behaviours of employees (Fernandes et al., 2014). However, Wagner (2015) maintains that financial educational interventions can be effective to some extent, on individuals with lower levels of education who need formal instruction to learn basic short-term behaviours (e.g., saving rates, credit card behaviours, budgeting, understanding interest costs etc.). Wagner (2015) also states that through the implementation of *optimal* interventions (that consider individual workplace differences), individual uptake of effective long-term behaviours (such as advanced retirement preparation, managing personal debt and loans and overall long-term financial planning) may occur.

The Micro-level Context: The Influence of Individual Differences

The Role of Career Attachment, Professional Identity and Work-Centrality

As illustrated above, macro and miso level factors have an interplay effect on retirement intentions and although micro-level factors such as psychological work related factors (e.g., job satisfaction and commitment) have also been examined in the past, they have not been considered in a multilevel framework.

Professional attachment to a role is one micro level factor that might significantly impact on retirement decisions. Work-centrality is the term used to capture the significance work plays in a person's life in the context of other life roles. Post et al., (2013), Wijeratne et al., (2017) and Zappalà et al., (2008) demonstrated that individuals with higher levels of career identification, work-importance and professional attachment (otherwise known as work-centrality) also reported later intentions to retire. Research deems work-centrality to be an important factor in determining a person's inclination to postpone retirement. The researchers suggest this is due to viewing retirement as a loss of a valuable membership role. Earlier theorists, Adams et al., (2002) discuss the potential that professional attachment may have on individual retirement decisions; workers with a high degree of professional attachment who value their role as a member of a particular profession and the status it provides, might be expected to be less likely to leave the workforce through retirement (Adams et al., 2002). Adams et al., (2002) suggested this may be the result of a loss in an important source of self-identity. Overall, career withdrawal literature supports the notion that workers who report higher career commitment and thus higher work-centrality also report lower levels of career withdrawal intentions (Adams et al., 2002; Post et al., 2013; Wijeratne et al., 2017; Zappalà et al., 2008).

The Superannuation Industry and Implications for Organisational Psychologists

Retirement advisors, such as superannuation funds, provide financial options and advice to their members. These are increasingly important services as financial options for retirement (especially taxation and transition) become increasingly complex and beyond the financial expertise of even well educated people.

However, as this review of the research literature indicates, superannuation and other related financial associations need to provide more extensive and comprehensive services on retirement that consider not only the relevant financial issues but also the implications of the

macro, miso and micro level factors associated with the retirement process. There would seem to be significant opportunities here for Organisational Psychologists who are ideally placed to research further and provide evidenced based advice to policy makers in organisations and Government, help identify those factors determining the timing of retirement and the extent of planning as well as the best opportunities for interventions to change behaviour. For example Organisational Psychologists might assist superannuation associations understand factors influencing workplace exit and savings strategies.

Recommendations for Future Research

As outlined in this review, retirement is a major concern for both the general public and Governments globally, with an increasing need for individuals to take responsibility for seeking retirement advice for options appropriate to their individual needs and also independently engaging in the retirement planning process. The Baby-Boomer Generation approaching retirement will create pressure on Governments needing to finance retirement needs across areas such as health, accommodation and leisure activities ultimately affecting quality of life (Hershey et al., 2013; Wang & Shi, 2014).

The key issue apparent from reviewing the literature is a lack of studies which explore the contribution multiple factors may have on the retirement decision, including those at the macro, miso and micro levels in a multilevel context. There is also an absence of suitable interventions catering for different types of individuals in different professions and jobs in different employment settings, thus emphasising a need to better understand individual and workplace factors which might affect optimal retirement decisions (Post et al., 2013; Shultz & Wang, 2011).

Further research is needed to explore the contribution of variables (in a multilevel framework) determining retirement decision-making beyond those traditionally considered

such as age and health (Wang & Shi, 2014). Specifically there is need to explore the influence of organisational size and whether individuals within larger organisations plan more than those in smaller organisations (due to size affecting retirement options available) and whether individuals in smaller organisations report later intentions to retire (due to size affecting the provision of atypical workplace policies and procedures); it also needs to explore the influence of different occupations, and whether employees in more financially oriented occupations plan more compared to those in non-financially oriented occupations; and lastly there is a need to assess individual workplace differences, such as work-centrality, and whether this significantly contributes to the retirement decision. The interplay across these levels is important to understand, is work- centrality a greater contributor than organisational size and occupation (assessing the overall interaction between these variables). The implications of this research for the provision of appropriate comprehensive retirement related information, both financial and non-financial, also need to be considered and in particular, the possible role of Organisational Psychologists in researching and assisting in a more wholistic retirement planning approach (Post et al., 2013; Shultz & Wang, 2011).

Conclusion

This literature review has recommended a number of improvements to the focus of retirement research efforts by promoting a more comprehensive understanding of the macro, miso and micro level factors which might inhibit or facilitate individual retirement decisions. A more comprehensive examination of the complex interaction between these factors is also needed in order to determine how best research and professional organisational expertise can provide interventions about retirement options and decision-making that benefit both individuals and organisations. The role of profesional advisors dealing with changing and complex factors affecting retirement decisions also needs to be considered. Such advisors should include not only those already providing financial advice but also those such as

Organisational Psychologists who are ideally placed to complement financial advisors in

providing relevant information about nonfinancial factors that affect optimal retirement

planning within organisations for all stakeholders (i.e., the employee, the organisation and the

Government).

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Situational retirement intentions and retirement planning: Taking a macro, miso and micro

perspective

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Abstract

This study aims to identify organisational, occupational and individual factors which may facilitate or inhibit retirement planning and exit intentions using a multilevel framework. Macro (organisation size), miso (occupation) and micro level factors (work-centrality), were compared to identify factors relating to retirement planning and age of workplace exit. A sample of 659 US based employees from mainly Finance, Scientific/Technological and Medical/Health-Science occupations participated in the study. Organisation size and work-centrality did not contribute to retirement intentions. All three multilevel workplace variables (i.e., organisation size, occupation and work-centrality) contributed to retirement planning behaviour. Identification of such factors may inform the strategic development and design of retirement interventions which may be implemented depending on work contexts and individual differences.

Keywords: retirement intentions, retirement predictors, retirement planning

1. An introduction to retirement

The retirement process is said to consist of a preretirement phase involving planning, a retirement decision phase consisting of the actual marked event, and a postretirement adjustment phase (Adams & Rau, 2011). The Australian Bureau of Statistics (ABS) indicates that people may cycle in and out of the retirement process, revisiting the cycle of decision-making (ABS, 2016). Research illustrates the significance of the initial phase, emphasising how crucial preretirement planning is for the success of the retirement decision and the retirement adjustment period (Adams & Rau, 2011). Overall, retirement is understood as a complex phenomenon involving an array of factors that relate to the preparatory stage and that impact individuals' decisions to retire and its consequences (Ekerdt, 2010; Feldman, 2013; Feldman & Beehr, 2011; Szinovacz, 2013; Topa, Moriano, Depolo, Alcover, & Morales, 2009; Wang & Shi, 2014).

1.1. The need for a more comprehensive exploration of retirement decisions

As the Baby-Boomer Generation ages, Governments and policy makers are exploring better ways to fund retirement plans and provide adequate financial support. In response to these economic and social pressures Governments globally are encouraging individuals to take responsibility for their own retirement welfare (Mermin, Johnson, & Murphy, 2007; Rice, Lang, Henley, & Melzer, 2010) by either delaying retirement or planning ahead. Despite a significant portion of the Western World approaching retirement, research on retirement planning shows there are still many individuals undertaking little to no planning for their retirement (ABS, 2016; Adams & Rau, 2011; Ekerdt, Hackney, Kosloski, & DeViney, 2001; Hershey, Jacobs-Lawson, & Austin, 2013; Lusardi & Mitchell, 2007a, 2007b; Shanmugam & Zainal-Abidin, 2013). Research is needed to find better ways of

supporting retirement decision-making and to identify factors that might be contributing to planning or its absence (Bal, De Jong, Jansen, & Bakker, 2012; Wang & Shultz, 2010).

While predictors of retirement planning and intentions have been identified these tend to be more individually focused and the sparsity of interventions allows little opportunity to contrast and compare effectiveness among and within sub-groups (Baxter et al., 2016; Hershey, Mowen, & Jacobs-Lawson, 2003). There are some indications that types of interventions are more likely to be effective among certain groups. For example Bircher [facilitator of the Lawyers Assistance Program for retirement (LAP, 2012)] used nonfinancial factors (i.e., mental-health, social and psychological), while Sharp (2014) worked with financial factors (i.e., social-security benefits, economic considerations and individual retirement account plans) and found it to improve planning. Greater insights are needed into differing populations and factors, beyond individual factors alone. Overall, there is growing support for the need to customise retirement planning interventions and to better understand and expand on the factors that are already known to impact retirement decisions in hopes to enhance the efficacy of future retirement schemes (Hershey et al., 2003; Muratore & Earl, 2010).

Post, Schneer, Reitman and Ogilvie (2013) appreciate that employees' relationships to retirement decisions (e.g., their expected retirement age and the associated precipitating factors) are likely to change, particularly depending on organisational and career context, and that retirement is rapidly evolving. Therefore Post et al., (2013), together with Wang and Shultz (2011), suggest organisational psychological research is ideally placed to assist in better understanding and managing employees' retirement decisions, to benefit organisational productivity pre-retirement and the overall viability of Government social-security systems, and moreover, that Psychologists are uniquely positioned to explore and establish the dynamics behind the changing face of retirement.

Psychological research applies a number of psychological models to explain the retirement process, its antecedents and outcomes (Noone, Stephens, & Alpass 2010; Wang & Shi, 2014). However these models have focused on the same traditional variables that researchers assumed are the main factors in the retirement decision process. These factors include demographics such as age, gender, ethnicity, education, occupation, health, marital status etc., (Hershey, Henkens, & Van Dalen, 2010; Wang & Shi, 2014) with an emphasis on finances as outcome measures. To date research has mostly focused on modelling the influences of these variables and particularly health and wealth which have been the most widely studied predictors of early retirement (Beehr & Bennett, 2015; Fisher, Chaffee, & Sonnega, 2016; Laitner & Sonnega 2013; Nga & Ken, 2013; Noone et al., 2010; Shanmugam & Zainal-Abidin, 2013; Wang & Shi, 2014). As such, according to Noone et al., (2010) little is still actually known about how individuals prepare for this life stage.

Through the deployment of the Multilevel Model of retirement we are able to investigate the potential impact multilevel (macro, miso and micro) work and organisational related factors may have on the retirement process (i.e., intentions to retire and engagement in effective retirement planning). The consideration and investigation of variables not yet studied in this context (i.e., understanding work related factors and their potential interactive impact on retirement decisions) will assist Organisational Psychologists and workplace consultants in the provision of retirement interventions for organisations (e.g., succession planning, timing of workplace exit). Workplace programs which encourage more wholistic retirement planning are needed for individuals, along with modifications to organisational policies and procedures, which may allow workers to remain in the job for longer and relieve pressure on social-security systems. In particular, applying the Multilevel Model of retirement in an organisational-work context allows researchers and practitioners to consider

contextual variables that may assist in promoting planning for retirement, and to better understand who is planning for retirement and how.

1.2. The study aim

The study will extend existing models by exploring the contribution of new variables in a multilevel context determining retirement decision-making beyond, demographics (age, gender, and ethnicity), health and wealth. Specifically the study aims to ascertain exactly who is planning for retirement and investigate the contextual influences of macro (organisational size), miso (industry and occupation) and micro (individual factors such as work-centrality) level factors as a way to identify potential work conditions that might facilitate or debilitate the intention to retire. In this way Organisational Psychologists are better able to design and develop effective interventions that are tailored to the individual and the workplace that encourage employee retirement planning whilst still employed, providing greater insight to the provision of retirement services, solutions, support programs and interventions within organisations. As well as, to consider the implications for the role of the Organisational Psychologist as experts in nonfinancial factors affecting retirement decisions, in complementing experts in financial factors.

1.3. The macro-level context: The influence of organisational size

While no explicit research evidence directly links organisational size and retirement intentions, latent variable research suggests it is an underlying factor explaining workers' propensity to retire sooner rather than later in larger organisations (Chew & Chan, 2008; French & Jones, 2011; Herrbach, Mignonac, Vandenberghe, & Negrini, 2009; Zappalà, Depolo, Fraccaroli, Guglielmi, & Sarchielli, 2008). Research showing the impact of organisational size on retirement decisions has identified a number of critical variables, however evidence overwhelmingly suggests resource acquisition and accessibility amongst

small to large organisations to be the critical asset for attracting and *retaining* long-term quality talent (Cardon & Steven, 2004; Chew & Chan, 2008; French & Jones, 2011; Herrbach et al., 2009; Kerin, 2015; Patel & Conklin, 2012; Wijeratne, Earl, Peisah, Luscombe, & Tibbertsma, 2017). An organisation's ability to employ and implement HR policies and practices (e.g., employer-provided health benefits, effective remuneration and recognition programs) has the ability to influence individual retirement decisions, including intentions to stay in the organisation and retirement planning behaviours (Cardon & Steven, 2004; Chew & Chan, 2008; French & Jones, 2011). Acevedo (2016), along with DeSilva (2016) and Jeszeck (2013) report that many small businesses may be unable to afford and implement retirement plans (14% of small business employers sponsor retirement plans of any kind) and find the development and administration of competitive retirement packages to be overwhelming and daunting. This may result in employees in smaller organisations being less likely to plan (compared to employees in larger organisations) due to a lack of support for workplace retirement initiatives such as varying work practises or retirement pathways, and reflected by their tendency (or lack of) to consider and engage in retirement planning behaviours.

Evidence suggests small firms can still provide value to their respective employees; although smaller businesses may have monetary and time constraints limiting their ability to implement advanced human capital initiatives. Conversely, smaller firms may be better at assessing exact staffing needs and determining what is most critical and beneficial for their employees (Cardon & Stevens, 2004; Kerin, 2015; Patel & Conklin, 2012). Small firms' ability to offer more personalised approaches around workplace initiatives and incentives, and their tendency to allow for more consideration of individual circumstances (such as sick leave, holidays and flexible working conditions) makes it easier for workers to stay at work for longer, and this in turn promotes individual workplace satisfaction (Cardon & Stevens,

2004; Kerin, 2015; Patel & Conklin, 2012; Wijeratne et al., 2017). This might be reflected by employees in smaller organisations opting to retire later.

1.3.1. Organisational size hypothesis

In this study we explore the relationship between organisational size and employee retirement intentions testing the hypothesis those in larger organisations ($n > 100$) intend on retiring earlier compared to those in smaller organisations ($n < 100$). We also test the hypothesis that those in larger organisations ($n > 100$) engage in the retirement planning process more than those in smaller organisations ($n < 100$), contingent on large organisations' superior retirement plan endorsement.

1.4. The miso-level context: The influence of occupation

It is possible by virtue of professional training, industry and occupation some people may be better equipped to plan for retirement than others. It has been suggested those in financially oriented professions (e.g., an accountant) may better prepared than those in dissimilar professions (e.g., a doctor) by virtue of the fact that their roles require higher levels of financial literacy – a good predictor of effective financial decision-making (Huston, 2010). Research indicates individuals who are financially literate make well-informed financial decisions, fewer financial mistakes and generally engage in *smarter* investment behaviours compared to individuals who are financially illiterate (Huston, 2010; Fernandes, Lynch, & Netemeyer, 2014; Shefrin, 2002).

Multiple studies reveal measures of financial literacy to be good predictors of effective financial decision-making and well-informed retirement planning (Almenberg & Save-Soderbergh, 2011; Garcia, 2013; Lusardi & Mitchell, 2007a, 2007b, 2008, 2011a, 2011b). Moreover, Van-Rooij, Lusardi and Alessie (2011) found a positive relationship between financial knowledge and retirement planning, i.e., ignorance around basic financial

concepts could be linked to a lack of retirement planning. Jaworski, Reed and Vernon (2016) asserted that individual differences in decision-making competencies account for the variation in how much and how accurately individuals weigh varying factors in the retirement decision-making process, suggesting individuals who are not qualified in financially oriented roles are less likely to be motivated and able to accurately project their retirement process (Jaworski et al., 2016). In this sense, we might expect finance professionals to engage in the retirement planning process more than individuals from different professional backgrounds, particularly in areas related to finance.

1.4.1. Occupational orientation hypothesis

This study aims to identify whether the link between financial disciplinary backgrounds and decision-making propensity exists, by comparing the retirement planning behaviours of people in different occupations and industries to determine whether this is a significant predictor of retirement planning involvement. We hypothesise that individuals employed within financially oriented sectors (i.e.., banking, accounting, financial advising etc.,) will be more inclined to engage in the retirement planning process and display higher levels of retirement planning behaviours such as Self-Insurance, Self-Protection and Public-Protection [see reference for full explanation of the Reflexive Planning Model (Muratore & Earl, 2010)] compared to individuals employed within Scientific/Technological, Medical/Health-Science and Social/Human-Science professions.

Occupations within financial, economic and commerce related industries require similar skills, education and credentials. The study identifies those working in respective occupations by O-NET's systematic coding of similar job-roles into job-families or career-clusters (O-NET is an online database containing detailed information on an array of occupations). Accordingly, the study codes and classifies financially orientated jobs (code 1: FIN); scientific, mathematical, technological and engineering type roles (code 2: STEM);

social/human-science type roles (code 3: PSS) and medical/health-science type roles (code 4:

HSCI) to include occupations with titles displayed in Table 1.

Table 1

Profession Orientation and Classification

Finance, Economics, Commerce (1 = FIN)	Science, Technology, Engineering, Mathematics (2 = STEM)	Social/Human-Sciences (3 = PSS)	Medical/Health-Sciences (4 = HSCI)
$N = 138$	$N = 152$	$N = 63$	$N = 20$
Accounting	Information Technology	Learning & Development Manager	Medical
Banking	Statistician/ Mathematician	Diversity & Inclusion Consultant	Health
Insurance	Network & Computer Systems	Talent Management	Medical Scientist
Financial Advisor	Network & Communications Specialist	Lead Manager	Nurse
Financial Analyst	Telecommunications Engineering	Human Resources Functional Training & Development	Physiatrist Anaesthesiologist
Forecasting & Budgeting Analyst	Scientist	Leadership Coaching	Occupational Therapist
Auditor	Intelligence Analysts	Assurance/Acceptance Coordinator	Dietitian & Nutritionist
Claims	Analytics	Anthropologist	Family, Health, & General Practitioner
Investment	Software Application	Continuous Improvement Consultant	Physician
Broker	Applications System Administrator	Team Building Coach	Surgeon
Credit	Operations Analyst	Occupation Work Health & Safety Officer	Radiologist
Risk-Management	Natural / Environmental Science	Counsellor	Pharmacist
Compensations & Benefits	Space Scientist	Change Management	
Compliance	Aeronautical Engineer	People Management	
Loans	Data Analyst	Recruiter	
Treasurer	IT/Computer Programmer	Development, Review, & Appraisal Officer	
Tax	Computer Systems Analyst/Developer	Disability Services	
Business Resource Specialist		Staff Engagement	
Business Development Specialist		Employee Relations	
Project Manager Estimator			

1.5. The micro-level context: The influence of individual differences

1.5.1. The role of career attachment, professional identity and work-centrality

Although micro-level factors like psychological work related factors (i.e., work-centrality, job satisfaction, engagement and commitment) have been examined in the past, they have not yet been considered in the multilevel framework proposed by the current study.

Post et al., (2013), Wijeratne et al., (2017) and Zappalà et al., (2008) all demonstrated individuals with higher levels of work-centrality (a concept which explains the significance work plays in a person's life in the context of other life roles) reported later intentions to retire. It is thought work-centrality is an important contributing factor when understanding individuals' inclination to postpone their retirement as it is understood retirement is viewed as a loss of a valuable membership role. It is therefore expected the retirement process would be avoided altogether by those who exhibit high levels of work-centrality. This may be reflected through those individuals with high levels of work-centrality reporting later intentions to retire, and engaging in the retirement planning process the least. Essentially it is expected workers with a high degree of professional attachment who value their role as a member of a particular profession and the status it provides, might be expected to be less likely to leave the workforce through retirement (Adams, Prescher, Beehr, & Lepisto, 2002; Post et al., 2013; Wijeratne et al., 2017; Zappalà et al., 2008).

1.5.1.2. Work-centrality hypothesis

The contribution of individual differences such as work-centrality is explored within the current study, exploring whether this variable is a significant contributor to the retirement decision, particularly within specific organisational and occupational contexts. The study tests the hypothesis that those individuals with high work-centrality scores (indicative of strong professional identity and work attachment) will report later intentions to retire, and also engage less in retirement planning behaviours.

2. Method

2.1. Participants

Hypotheses were tested using a US based workplace sample ($N = 659$; 65.3% male, 34.7% female), with the highest level of education acquired being PhD, and a majority of the sample possessing a Bachelor's degree or higher (i.e., Post-Graduate studies; 73%). Participants used in the study were employed across a range of different professions ranging from accountants, to educational lecturers to ICU nurses, and aged between 35 and 75 years (males' mean age: 48.93 years, females' mean age: 48.44 years). Refer to Table 1 for typical job titles held by participants. Participants answered surveys at the end of completing a battery of assessments attended for the purpose of recruitment or development. As such, the database contains information per individual regarding job and organisation characteristics, personality traits, vocational interests, demographics and psychological work related factors; this enabled the researcher to retrieve the data on organisational size, occupational orientation and work-centrality levels.

2.2. Materials and procedure

2.2.1. Retirement planning questionnaire II

In this study we explored associations between retirement planning behaviours [as measured in the Retirement Planning Questionnaire subscales (RQPII)] and individual differences in the variable work-centrality, organisational size and occupational orientation. The original Retirement Planning Questionnaire [(RPQ), see (Muratore & Earl, 2010) for access to the full measure] ascertains planning behaviours across four domains: financial, health, interpersonal/leisure and work. However, it was found that this original tool (initially published and applied in Australia) used a yes/no dichotomous scale which lacked sensitivity. Therefore this study employed the use of the RPQII (revised edition), developed as an extension of the initial RPQ, which samples a broader range of behaviours according to the

reflexive planning model [promoted by (Denton et al., 2004; Ehrlich & Becker, 1972), detailed below].

The RPQII is a 28 item questionnaire adequately designed to assess retirement intentions and preparatory behaviours by participants reporting how much effort they had spent looking into a particular behaviour on a scale from 1 *(very small amount of effort)* to 5 *(very large amount of effort)*. The RPQII ascertains information on the following three domains:

(a) Self-Insurance (SI): [$\alpha = .921$; $n = 13$] assessing personal financial preparations made by individuals to optimise wealth in later life. This includes constructs such as savings accounts, investments and contributions to superannuation, as well as private insurance policies for assets and health care, i.e., *checking your superannuation fund's performance.*

(b) Self-Protection (SP): [$\alpha = .842$; $n = 10$] assessing personal, non-financial, preparations made by individuals to maintain health and wellbeing in later life. This includes constructs such as health-lifestyle choices, engagement in social support networks, as well as an individual's propensity to seek a safe physical environment, i.e., *participating in one or more leisure planning or wellbeing workshops, seminars or courses on retirement which were not Government run.*

(c) Public-Protection (PP): [$\alpha = .910$; $n = 7$] assessing the individual's engagement in benefits provided by the Government to promote health, wealth, and wellbeing in later life. This includes pensions, public health programs, health services or housing programs. PP items in particular were derived from Australian Government websites, i.e., *applying for a senior's concession allowance.*

The tool was initially developed to be used and validated within the Australian population (largely reflecting the Australian context) however is intended for international

use also. As such, minor modifications were made to the RPQII with the support of three

local subject matter experts, to ensure more tailored content to the US context. This resulted

in two new Public-Protection items included, "Investigated Medicare-sponsored health

programs" and "Investigated one or more Medicare-covered preventative services"; one new

Self-Insurance item, "Secured your housing for retirement (e.g. bought a house/unit or paid

off a mortgage)"; and the exclusion of one Self-Protection item, "Participating in one or more

health screening programs". In addition to this, the authors re-worded some items to most

appropriately correspond with the US context, for instance, "Made periodic contributions to

your retirement account" (US version) vs "Made personal contributions to your

superannuation fund" (Australian version) [$\alpha = .745$].

2.2.2. Intention to retire

In this study we explored associations between the Intention to Retire (ITR) measure

and individual differences in variables including work-centrality, occupational orientation

and organisational size. The ITR scale consists of a series of questions which were presented

to participants in determining individual retirement intentions. Results were attained by

asking participants the question "How many years until you intend to retire?"

3. Results

3.1. Organisational size analyses

3.1.1. Organisational size and the intention to retire

To test the hypothesis those in larger organisations intend on retiring earlier than

those in smaller organisations a hierarchical linear regression (Table 2; Appendix B) was

carried out with the additional predictor variable organisational size, against outcome variable

intended time to retire to assess whether organisational size would significantly account for

added variance in the intention to retire, beyond that already known by demographics (age,

gender and ethnicity). Results showed no statistically significant contribution of

organisational size to individual intention to retire β = - 0.118, t(647) = -1.730, p > .05.

Therefore the hypothesis is not supported that those in larger organisations intend on retiring

earlier than those in smaller organisations.

3.1.2. Organisational size and retirement planning

To test the hypothesis those in larger organisations engage in the retirement planning

process more than those in smaller organisations a hierarchical linear regression was carried

out with the additional predictor variable organisational size against the outcome variable

total retirement planning and individual retirement planning behaviours (Self-Insurance,

Public-Protection and Self-Protection), to assess whether organisational size would

significantly account for added variance in individual propensity to engage in retirement

planning behaviours, beyond that already known by demographics (age, gender and

ethnicity).

Results showed statistical significance for organisational size with total retirement

planning in general β = .609, t(647) = 2.691, p < .05 (Table 3; Appendix C), specifically the

two retirement planning behaviours Public-Protection β = .144, t(647) = 2.210, p < .05 (Table

4; Appendix C) and Self-Insurance β = .401, t(647) = 2.911, p < .05 (Table 5; Appendix C).

In terms of direction, those in larger organisations are more likely to plan for Public-

Protection and Self-Insurance. This may be because they are more easily able to access

programs or education, especially those financially based, offered by the Organisation or are

at least *conditioned* to look for it. However, results showed no statistical significance for the

retirement planning behaviour Self-Protection β = .064, t(647) = .922, p > .05 (Table 6;

Appendix C).

Results therefore identify organisational size to have a significant weighting over

individual propensity to engage in retirement planning behaviours. Therefore our hypothesis

that individuals within large organisations engage in retirement planning more than individuals in smaller organisations is supported.

3.2. Occupational orientation analyses

3.2.1. Occupational orientation and retirement planning

In testing the hypothesis individuals employed within financially oriented professions engage in the retirement planning process more compared to those employed within alternate professions, the researcher categorised and coded occupations contingent on job-titles (Table 1) to identify the highest frequency professions (Table 7; Appendix D); Financial, Economics and Commerce (FIN; $n = 138$; code 1); Scientific, Technological, Engineering, Mathematics (STEM; $n = 152$; code 2), Human/Social-Sciences (PSS; $n = 63$; code 3); Medical/Health-Sciences (HSCI; $n = 20$; code 4). Due to human-error in the input of job-titles from participants, half of the sample data was excluded when conducting this analysis ($n = 373$). The statistical analysis MANOVA was used on the respective professions (FIN, STEM, PSS, HSCI) to compare retirement planning behaviour scores (Self-Insurance, Public-Protection and Self-Protection).

Overall, Medical/Health-Science professions ($n = 20$) engaged in the most retirement planning behaviours (Self-Insurance, Public-Protection and Self-Protection). Financial and Scientific/Technological professions ($n = 138$; $n = 152$ respectively) reported similar scores and engaged in the least retirement planning across the three areas (Self-Insurance, Public-Protection and Self-Protection; reference to Table 8, Appendix D).

Analyses revealed there to be a statistically significant difference in retirement planning based on professional orientation $F(9, 893) = 3.356$, p < .05, Wilk's A = .922 (Table 9; Appendix D). It is important to make an alpha correction to account for multiple ANOVAs being run, such as a Bonferroni correction. As such, in this case we accept statistical significance at p < .017 (Pallant, 2013, p. 305). In particular, tests of between subjects (Table

10; Appendix D) reveals professional orientation to have a statistically significant effect on the retirement planning behaviour Self-Protection $F(3,369) = 7.472$, p < .017, however no statistically significant effect on Self-Insurance and Public-Protection (p > .017). This study only reveals a significant difference between professional orientations for the retirement planning behaviour Self-Protection.

Post-Hoc analysis comparing mean scores for the retirement planning behaviours across the four professional groups revealed some interesting and significant differences (Table 11; Appendix D). Self-Protection were statistically significant between professions Finance (M = 24.725) and Medical/Health-Sciences (M = 30.250; p < .017), however were not statistically significant between Finance (M = 24.725) and Scientific/Technological professions (M = 24.717; p > .017) and Finance (M= 24.725) and Social/Physical-Science professions (M= 27.619; p>.017). Mean scores for Self-Protection were also statistically significant between the professions Scientific/Technological (M = 24.717) and Physical/Social-Sciences (M = 27.619; p < .017), and Scientific/Technological (M = 24.717) and Medical/Health-Sciences (M = 30.250; p < .017).

Therefore the hypothesis that those employed within financially oriented roles engage in the retirement planning process more was not supported. It is interesting to note that significant lower levels were noted on items measuring Self-Protection (i.e. those items related to the non-financial aspects of planning) by Finance professionals. Similarly those working in Medicine and Health Sciences were more likely to be planning in Self-Protection behaviours (i.e. non-financial aspects of retirement) than other professions were. Although we do not see evidence of professionals in finance planning more for retirement, we find them planning less in the non-financial areas and those in Medical/health planning significantly more.

3.3. Work-centrality analyses

3.3.1. Work-centrality and intention to retire

To assess whether work-centrality explained additional variance in the intention to retire, beyond demographic factors alone a hierarchical linear regression was performed. Demographic variables (age, gender and ethnicity) were added in step 1 and work-centrality entered in step 2 against the outcome variable intention to retire. Results displayed no statistically significant contribution of work-centrality to individual retirement intentions β = .055, t(647) = .922, p > .05 (Table 13; Appendix E). Therefore hypothesis 4 was not supported.

3.3.2. Work-centrality and retirement planning behaviours

To test the hypothesis that work-centrality predicted retirement planning beyond demographic factors alone, a hierarchical linear regression was carried out. Work-centrality scores were entered in step 2 of the hierarchical linear regression with demographics entered in step 1 (age, gender and ethnicity) for each of the individual retirement planning behaviours (Self-Insurance, Public-Protection and Self-Protection) as well as total retirement planning behaviours.

Results found an overall statistically significant effect of work-centrality on overall retirement planning behaviours β .841, t(647) = 4.308, p < .05 (Table 14; Appendix F). More specifically results indicate work-centrality had a statistically significant effect on the retirement planning behaviours Public-Protection β = .181, t(647) = 3.213, p < .05 (Table 15; Appendix F), Self-Insurance β = .390, t(647) = 3.262, p < .05 (Table 16; Appendix F) and Self-Protection β = .269, t(647) = 4.532, p < .05 (Table 17; Appendix F). Those people with high work-centrality were focusing their planning energies on Public-Protection (i.e. the non-financial aspects), Self-Insurance (i.e. superannuation) and Self-Protection (i.e. saving for their selves) perhaps as a way of controlling their workplace exit.

4. Discussion

4.1. Multi-level framework findings and implications

Overall the study results were mixed. Macro, miso and micro level factors were not all found to impact retirement intentions and planning as anticipated, suggesting the need to further explore other organisational work factors which might explain retirement intentions and the planning process. In terms of retirement intentions it was discovered that both organisation size and work-centrality did not matter. With regard to overall retirement planning behaviour, it was discovered that all three multilevel workplace variables did matter (i.e., organisation size, occupation and work-centrality). Self-Protection planning was more likely to be influenced by occupation (specifically the most by Medical/Health-Science professionals and the least by Financial professionals) and work-centrality (individuals with high work-centrality planned more); Self-Insurance by organisation size (employees from large organisations were more likely to plan) and work-centrality (individuals with high work-centrality planned more); and Public-Protection by organisation size (again employees from large organisations) and work-centrality (individuals with high work-centrality). Overall retirement intentions (i.e., when individuals intend on retiring) were not found to be meaningfully influenced by multi-level organisational factors, although retirement planning behaviours were.

4.1.1. The macro-level

Organisation size has the potential to impact retirement planning behaviours (specifically Public-Protection and Self-Insurance). This might in part be due to the fact that large organisations have better access to resources which provide and equip employees with the necessary financial information and services, forming part of the employers' endorsed financial retirement plan (Acevedo, 2016; DeSilva, 2016; Jeszeck, 2013). This likely encourages the financial planning and preparation demonstrated by employees from large

organisations. However, employees from large organisations lacked Self-Protection retirement planning behaviours, and the absence of these can have a profound effect on retirement satisfaction outcomes (Damman, Henkens, & Kalmijn 2011; Dosman, Fast, Chapman, & Keating, 2006; Griffin & Hesketh, 2008; Kubicek, Korunka, Raymo, & Hoonakker, 2011; Nimrod, 2007). Bircher (LAP, 2012) discusses the benefits of beginning new activities and hobbies well before retirement, to avoid difficultly in establishing new hobbies post-retirement. Bircher (LAP, 2012) also believes individuals should seek to broaden their social network prior to retirement to mitigate the perception of *loss* during retirement. Organisational Psychologists are ideally placed to assist large organisations and their employees to change these behaviours; through the provision of counselling sessions with a particular focus on the nonfinancial factors associated with retirement planning and preparation (such as the importance of maintaining social-networks, physical-health, and family and friend relations in later life).

Organisational Psychologists, as part of multidisciplinary retirement advisory teams, might seek to identify the Self-Protection factors relevant to the individual's preservation of later-life and tailor interventions to address these. Evidence based research demonstrates the benefits retirement goal setting (i.e., goal clarity and financial planning activities) has on predicting retirement saving practices (Stawski, Hershey & Jacobs-Lawson, 2007). Integrating these different domains of retirement planning may help to ensure the uptake of Self-Protection activities. For example, an individual may plan and prepare their future estates, wills and trusts more effectively with input from future beneficiaries. Significant family relationships and friendships require personal investment during mid-life as a way to foster and facilitate these relations into retirement [Financial Planning Association of Australia; (FPA, 2015)]. Likewise, an individual might practice good investing, protection of their assets, finance for future home renovations and begin to consider gifting to family

throughout their mid-life, however these efforts may prove unrewarding without the maintenance of significant relationships and hobbies (i.e., Self-Protection factors) to enjoy in the later-life retirement phase.

Organisational Psychologists may also assist at a broader organisational level when promoting Self-Protection factors. Through the provision of *host-speak-engagements*, external consultants might offer onsite seminars or provide access to remote podcasts aimed at empowering and exposing employees to the nonfinancial factors associated with retirement. Overall, considering employees in large organisation primarily plan and prepare for their future in finances, large organisations would greatly benefit from outsourcing Organisational Psychologists to boost Self-Protection awareness.

It is possible that employees in small organisations tend not to engage in the retirement planning process due to the general lack of exposure and accessibility to retirement planning resources (Acevedo, 2016; DeSilva, 2016; Jeszeck, 2013). Past literature states that small organisations are already at a disadvantage, as this has the profound ability to attract and retain quality employees (DeSilva, 2016). Despite small organisation attempts to attract and retain quality staff through the provision of flexible HR practices (e.g., flexible work conditions) the current study's findings align with those of Herrbach et al.,'s (2009); namely no impact on retirement decisions exists. It may be of interest to small organisations to outsource interventions to multidisciplinary retirement advisory teams. These multi-disciplinary teams might consist of Organisational Psychologists' (providing nonfinancial expertise) and Financial-Advisors' (providing financial expertise) who offer education, support and advice about the retirement planning process. This introduces employees to retirement planning and promotes engagement in the independent planning process; employees may also feel more secure and supported by their employer. Small businesses may

also seek to join together as Co-ops or work more closely with superannuation associations to receive more support in the promotion of retirement planning.

Essentially the macro-level factor's ability to influence the retirement decision is largely contingent on resource acquisition and accessibility; large firms appear to predominantly endorse financial planning and therefore require the introduction of Self-Protection planning; small firms seemingly lack resources in general to equip and expose their employees to retirement planning and preparation altogether. Organisational Psychologists are ideally placed to address both short-comings.

4.1.2. The miso-level

Miso-level findings proved interesting, albeit concerning; financial professionals were not found to engage in the two financially oriented planning behaviours more than others (i.e., Self-Insurance and Public-Protection). This has possible implications for the financial advice industry; as experts in financial planning their behaviour, decision-making and advice is modelled for their clientele, with the significant ability to influence client beliefs, values and future decision-making concerning financial retirement welfare. Financial professionals are ideally placed to assist and encourage individuals to take responsibility for their retirement welfare and to make planning a priority. However, it is clear the necessity of this planning is not demonstrated through their own situations and behaviours.

It is possible that financial professionals see planning for finances as a continuous process and do not differentiate between planning for retirement from every day planning and budgeting during throughout their working life; therefore they may not regard retirement investments as having the potential to add anything extra to their future investment plans. No studies explicitly report this causation, although an abundance of past literature suggests financial professionals make more effective financial decisions (Almenberg & Save-

Soderbergh, 2011; Fernandes et al., 2014; Lusardi & Mitchell, 2007a, 2007b). This might also signify that they make more *regular and frequent* insightful financial decisions.

A recent publication from the European Financial Review titled *How Behavioural Biases Affect Finances* discussed how financial professionals fall risk to behavioural biases such as heuristics, anchoring and framing which negatively impact their decision-making process, and cause them to derive suboptimal outcomes for themselves (Baker, Filbeck, & Ricciardi, 2017). Baker et al., (2017) contend that financial professionals (particularly planners and advisors) regularly apply heuristic judgments to assess and forecast investment risk tolerance of their clients. It is possible financial professionals may apply these cognitive biases when making their own financial assessments and decisions, subconsciously resulting in conservative investment decisions being made (Baker et al., 2017). This may account for the current study's findings (i.e., financial professionals fall victim to these cognitive biases when assessing their own financial security for their future, and fail to re-visit retirement planning and investing as necessary).

Another potential explanation could be that although they are employed in the finance industry it does not mean they are particularly familiar with and equipped for the complex and ever changing legalisations, regulations, policies and procedures associated with Public-Protection options (i.e., the benefits provided by Governments, such as public-health programs, health and insurance schemes and housing programs). It could be for example that their roles are somewhat disconnected from individual decision-making and focused on more broader and strategic issues. French and Jones' 2011 study demonstrate Public-Protection factors (i.e., the changes in Medicare funding and eligibility criteria know to the general public) to be important in influencing the uptake of retirement planning behaviours.

The opportunity therefore exists for multidisciplinary teams, inclusive of Organisational Psychologists as experts in nonfinancial factors, together with experts in Public-Protection factors (who are able to inform and advise on current Federal initiatives, schemes and policies available to the public, such as Government authorities and/or employees, e.g., a Housing SA representative) to provide financially oriented organisations and their employees with the necessary social-security material, support and advice. Financial member associations (e.g., the Accounting Association of Australia and New Zealand) might aim to work more closely with superannuation associations to assist in the outsourcing and provision of multidisciplinary advisory teams to their financial institution members, to ensure inclusion of the necessary Public-Protection issues on the advising teams. This may help to create the perception that resources are readily accessible, relevant and valuable to them, encouraging retirement planning and preparation in all three domains. Multidisciplinary advisory teams might also seek to demonstrate the immediate and long-term benefits of retirement investments (particularly in finance) to encourage employees to actively begin planning and preparing.

At an individual level Organisational Psychologists may work with individuals to de-bunk any pre-existing perceptions of retirement and establish customised retirement goals through the provision of consultant-employee counselling sessions as these may improve retirement goal setting efficacy and promote better planning (Stawski et al., 2007). This type of initiative not only encourages financial professionals to take responsibility for their own retirement welfare, but may also pay dividends in creating shared-empathy with clients.

Medical professionals were found to plan the most for their retirement, specifically in Self-Protection. One potential explanation for this may be that these professionals typically deal with death, the elderly and the sick on a daily basis which prompts them to plan and prepare for their future should sudden or unfortunate circumstances arise (Moores, Castle,

Shaw, Stockton, & Bennett, 2007). Considering medico-professions lacked financial preparation, member associations (such as the Royal Association of General Practitioners) might aim to work more closely with superannuation associations and financial advisers to provide their members with more immediate access to this type of expertise.

Overall it was demonstrated that different occupations plan differently and emphasis different domains of planning. Therein lies important implications for the work and contribution of Organisational Psychologists who are ideally placed to identify profession/occupational attributes which might better explain this variance and establish whether it could be explained by external occupational forces (e.g., union or member association support) or intrinsic occupational forces (e.g., job related tasks, training and expertise) (Elovainio et al., 2005).

4.1.3. The micro-level

It was unexpected that those with high work-centrality would plan more for their retirement; this was one of the first studies to show that work-centrality was linked to greater retirement planning. Past research has established a relationship between high work-centrality and prolonged intentions to retire (Post et al., 2013). Despite having high work-centrality and valuing ones job, individuals may still remain realistic about when they will leave the workforce and therefore begin setting up their financial resources accordingly (French & Jones, 2011; Mollica & DeWitt, 2000; Potočnik, Tordera, & Peiró, 2010; Toomey & Rudolph, 2017). French and Jones (2011) suggest that uncertainty around social-security benefits and long-term security employment are important predictors for saving behaviours. Therefore, those with high work-centrality may be seeking to best manage their workplace exit by ensuring a better retirement. For instance, although individuals occupying senior/executive level roles may demonstrate profound professional attachment, they may also be thinking about moving on from a high responsibility role or losing their job through

redundancy. Employees also appreciate succession planning to be a natural part of every organisation (Arnone, 2006; Collins & Collins, 2007; Harada, Love, & Triebel, 2013; Mollica & DeWitt, 2000; Potočnik et al., 2010; Toomey & Rudolph, 2017) and anticipate future job losses through restructuring or redundancy.

Recent research exploring the workplace variables, work-ethic and work-centrality, may provide other potentially useful insights; it was found that an increase in work-centrality corresponds with an increase in the protestant type work-ethic (Kostek, 2012). Therefore, the lack of planning displayed by individuals with low work-centrality may be explained by the moderating variable work-ethic, i.e., people with low work-centrality practice poorer work-ethics, reflected by their lack of attempt and effort into planning and preparing for their retirement (Kostek, 2012). Moreover, it might be possible that underlying work-centrality and retirement planning is the personality trait conscientiousness, operationalised through the variable work-ethic (Robinson, Demetre, & Corney, 2010). While Robinson, Demetre and Corney (2010) found conscientiousness was related to aspirational components of retirement, more recent evidence (Blekesaune & Skirbekk, 2012) suggests personality does not relate to retirement components and behaviours. The opportunity exists for Organisational Psychologists to explore and establish this complex relationship.

Low work-centrality has significant implications for both career progression/transition and organisational performance (Diefendorff, Brown, Kamin, & Lord, 2002). Through the identification of *at-risk* employees (i.e., low work-centrality individuals) workplace performance and commitment may be improved, together with the enablement of services aimed to engage and encourage independent retirement planning. Organisational Psychologists might assess and explore the work-life balance of low work-centrality (at-risk) individuals, in hopes to make changes which would bring about improvements to individual commitment, performance and retirement planning (Carlson & Kacmar, 2000; Carr, Boyar, &

Gregory, 2008). Consultants might seek to incorporate aspects of work-life balance with the domains of retirement planning to increase independent planning (Stawski et al., 2007). For example, individuals may be experiencing home, family and/or marriage demands that are impeding on their ability to invest more time and effort at work; this might be best managed by assessing and identifying the individual's Self-Protection factors that need to be better managed and prioritised, e.g., through relationship management, reducing conflict and pursuing hobbies which enhance their wellbeing and reduce stress.

Organisational Psychologists might also assist individuals with low work-centrality in understanding that retirement planning provides relief to their end-of-work phase. They may seek to re-position feelings of hostility towards planning and preparing more positively and as a way of facilitating their exit. It is in the employer's best interest to assist these employees, and assess the precipitating factors such as their work-life balance, in order improve commitment, performance and planning. The recommended initiatives may not only provide benefit to the employer through enhanced performance and commitment, but also to the promotion of retirement planning.

4.2. Overarching implications for organisational psychologists and recommendations

Organisational Psychologists may contribute by acting as experts in nonfinancial factors affecting retirement decisions, complementing the experts in financial factor advice. Essentially they would be providing more extensive advice on retirement beyond finances and wealth, i.e., on psychological factors such as those encompassed in Self-Protection planning. There is therefore an implication for the superannuation industry and other professional associations such as banks, financial institutions, professional associations and unions to employ Organisational Psychologists as part of their advisory teams to incorporate psychological expertise in their retirement services. Organisational Psychologists may

operationalsie their expertise through the provision of counselling with individuals, to assess the nonfinacnial factors for particular individuals to arrive at an optimal retirement plan.

They may also seek to monitor and identify the anticipated changes in work, and workplace conditions, as well as identify how these changing conditions might affect individual retirement planning propensities and intentions. Lastly, Organisational Psychologists are well positioned to conduct follow up research determining whether customised interventions and services lead to quality of retirement life outcomes. It must also be noted, the foreseeable difficulties in providing individuals with the financial skills for retirement i.e., the complex factors affecting tax, investments and the continuing changes in legislation, mean this role is one for experts in finance assisted by Organisational Psychologists.

Potential recommendations include retirement programs to be offered, not only by organisations, but other groups with member clients, e.g., professional associations and unions that have a vested interest in ensuring members get the best and most comprehensive service. An advantage of such professional organisations and unions is that they could target their members well before retirement to get them thinking about the relevant issues and options. Education for independent responsibility taking may be assisted and enhanced through Government initiatives making people aware of the complex factors involved in retirement and informing individuals on what sorts of organisations, e.g., professional bodies, unions, superannuation associations and bank services, can help support decision-making for their individual circumstances and encourage and initiate the planning process.

Organisational Psychologists may assist by identifying the potential factors associated with varying occupations and professions which might inadvertently emphasise the importance of planning in particular areas, versus no planning at all (Blekesaune & Solem,

2005; Elovainio et al., 2005). There may be underlying biases around the value of money, mental-health or accessing and utilising Government funding which might be present within professions/industries that researchers and theorists are not aware of. Organisational Psychologists, as part of multidisciplinary teams, could assist in the integration and administration of such information.

5. Future research

Future research could seek to explore associations between retirement decisions and organisational-work related factors, job-zones, job-satisfaction and work-ethic in attempt to further refine the factors significantly associated with the retirement decision and planning process. Job-zones would seek to assess the contribution level of authority and responsibility (i.e., executives, middle managers and bottom line employees) might have on the retirement decision, exploring and answering the question do executives plan, more with earlier or later intents to retire.

Research may also reveal the difference found in independent planning amongst professions to be intrinsically explained to job-demands (e.g., more emotionally and physically demanding jobs may increase independent planning) or job-tasks (e.g., the cognitive wiring required by roles subconsciously influences subsequent decisions and behaviour) (Blekesaune & Solem, 2005; Elovainio et al., 2005). Alternatively, it could be explained by external variables relating to certain occupations or professions such as access to unions (i.e., providing constant support, information, materials and services to their respective members) or Government industry funding (i.e., increased investment accessibility). Gaining further insight into the potential occupational attributes allows future retirement schemes and programs to be tailored/customised accordingly by Organisational Psychologists.

6. Limitations

Methodological limitations consisted of data entry and data collection for the variable job-title; participants that could not find a suitable or *near-enough* occupational orientation in the list they were presented with, resulted in them entering their exact job title, which ultimately deviated from the already classified job-families/clusters. This in turn meant the researcher had to re-classify and re-categorise job-title data into professional orientation, with room for human-error due to the ambiguity around certain job titles. In addition to this, the researcher found a portion of the data from this variable unable to be de-coded and therefore excluded during the statistical analyses, with the significant potential to impact the results (i.e., for the professional orientation and retirement planning analysis).

The two main measures employed within the study (Retirement Planning Questionnaire and Retirement Intentions Questionnaire) were both self-report measures. Self-report measures are inherently associated with desirability biases and the potential for low validity in that the measures are fixed choice questions which lack flexibility and forces participants to answer from one of the scale items (i.e., are set responses).

Lastly, the sample was not representative of both the general Australian population and the general *working* population. The sample utilised participants from the US which mostly acquired higher tertiary degrees including Masters, Post-Graduate and PhDs. Generalisability to both contexts is therefore limited.

7. Conclusion

There is sufficient evidence to suggest the possibility that some factors might be utilised to encourage more retirement planning. This has significant implications for the ability to encourage individuals to take more responsibility for their own financial welfare in retirement, as well as their wellbeing. By further identifying and establishing the

organisational factors that significantly facilitate the retirement planning process,

multidisciplinary retirement advisors are able to strategically customise future retirement

schemes, options and services accordingly, with the result of increased independent

responsibility taking (i.e., individuals being equipped to make decisions themselves and also

seeking the appropriate advice from a range of experts).

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Appendix A

Journal of Vocational Behaviour Author Guide

JOURNAL OF VOCATIONAL BEHAVIOR

DESCRIPTION

The Journal of Vocational Behavior publishes original empirical and theoretical articles that contribute novel insights to the fields of career choice, career development, and work adjustment across the lifespan and which are also valuable for applications in counseling and career development programs in colleges and universities, business and industry, government, and the military.

The Journal primarily focuses on investigations of individual decision-making about work and careers rather than studies of employer or organizational-level variables. Example topics include initial career choices (e.g., choice of major, initial choice of work or organization, organizational attraction), the development of a career, work transitions, work-family management, work adjustment and attitudes within the workplace (such as work commitment, multiple role management, turnover).

INTRODUCTION

The Journal of Vocational Behavior publishes articles that report empirical research, both quantitative and qualitative, that expands knowledge about vocational choice, work adjustment, and career development across the life-span.

Editors will consider manuscripts that make significant contributions to the literature in the following areas:

Studies of vocational choice examining topics such as:

• Theories of career choice; occupational interests and their measurement
• The inter-relation of abilities, needs, values, and personality
• Occupational aspirations and the vocational decision-making process
• Career adaptability; vocational development processes and stages
• The effects of culture, demographic variables, and experiential factors on vocational choice and work adjustment
• Career exploration
• Job search

Studies of vocational adjustment investigating topics such as:

• Job performance and satisfaction
• Career success;
• Theories of work adjustment
• Adult vocational development and career patterns
• Organizational commitment and job involvement
• Multiple-role management
• Work-role salience
• Work-leisure relations
• Midlife career change
• Occupational re-entry and transition from work to retirement.

The journal also publishes research on career interventions; mentoring; and psychometric research that reports the construction and initial validation of new inventories as well as studies that evaluate the reliability and validity of instruments that measure career related constructs.

PREPARATION
Double-blind review
This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. More information is available on our website. To facilitate this, please include the following separately:

Title page (with author details): This should include the title, authors' names and affiliations, and a complete address for the corresponding author including an e-mail address.

Blinded manuscript (no author details): The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

Use of word processing software
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure
Subdivision-numbered sections Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1,1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to ''the text''. Any subsection may be given a brief heading. Each heading should appear on its own separate line

Introduction

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods

Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

Theory/calculation

A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results

Results should be clear and concise.

Discussion

This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Essential title page information

Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.

Author names and affiliations. Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lowercase superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.

Corresponding author. Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**

Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using British spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Artwork

Electronic artwork General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, oruse fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.

A detailed guide on electronic artwork is available.

Formats

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

Figure captions

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Appendix B

Analyses: Organisational Size and Intention to Retire

Table 2

Organisational Size and the Intention to Retire Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.765ᵃ	.585	.583	6.28322	.585	304.948	3	648	.000	
2	.766ᵇ	.587	.585	6.27357	.002	2.994	1	647	.084	2.11

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, job_current1_size

c. Dependent Variable: time_retire

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	58.365	1.781		32.768	.000
	age	-.860	.028	-.769	-30.225	.000
	gender	-.486	.523	-.024	-.929	.353
	ethnicity	.374	.147	.065	2.549	.011
2	(Constant)	59.627	1.922		31.022	.000
	age	-.866	.029	-.774	-30.280	.000
	gender	-.483	.522	-.024	-.925	.355
	ethnicity	.356	.147	.062	2.422	.016
	job_current1_size	-.118	.068	-.044	-1.730	.084

a. Dependent Variable: time_retire

Appendix C

Analyses: Organisational Size and Retirement Planning

Table 3

Organisational Size and Total Retirement Planning Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.342ᵃ	.117	.113	20.89875	.117	28.688	3	648	.000	
2	.356ᵇ	.127	.122	20.79887	.010	7.239	1	647	.007	1.914

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, job_current1_size

c. Dependent Variable: Total_RPB

Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	46.455	5.924		7.841	.000
	gender	-2.604	1.738	-.056	-1.498	.135
	ethnicity	.880	.488	.067	1.801	.072
	age	.816	.095	.320	8.613	.000
2	(Constant)	39.951	6.372		6.269	.000
	gender	-2.618	1.730	-.056	-1.514	.131
	ethnicity	.973	.487	.074	1.997	.046
	age	.843	.095	.331	8.895	.000
	job_current1_size	.609	.226	.100	2.691	.007

a. Dependent Variable: Total_RPB

Table 4

Organisational Size and Public-Protection Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.411ᵃ	.169	.165	5.99943	.169	44.010	3	648	.000	
2	.419ᵇ	.175	.170	5.98154	.006	4.882	1	647	.027	1.893

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, job_current1_size

c. Dependent Variable: Public_Protection

Coefficients

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.113	1.701		.067	.947
	gender	-.111	.499	-.008	-.223	.823
	ethnicity	-.225	.140	-.058	-1.601	.110
	age	.311	.027	.411	11.428	.000
2	(Constant)	-1.423	1.833		-.776	.438
	gender	-.115	.497	-.008	-.231	.817
	ethnicity	-.202	.140	-.052	-1.444	.149
	age	.317	.027	.420	11.634	.000
	job_current1_size	.144	.065	.080	2.210	.027

a. Dependent Variable: Public_Protection

Table 5

Organisational Size and Self-Insurance Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.353a	.124	.120	12.73491	.124	30.663	3	648	.000	
2	.368b	.136	.130	12.66207	.011	8.476	1	647	.004	1.897

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, job_current1_size

c. Dependent Variable: Self_Insurance

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	27.328	3.610		7.570	.000
	gender	-3.980	1.059	-.140	-3.758	.000
	ethnicity	.883	.298	.110	2.966	.003
	age	.433	.058	.278	7.510	.000
2	(Constant)	23.044	3.879		5.940	.000
	gender	-3.990	1.053	-.140	-3.789	.000
	ethnicity	.945	.297	.118	3.183	.002
	age	.452	.058	.289	7.825	.000
	job_current1_size	.401	.138	.107	2.911	.004

a. Dependent Variable: Self_Insurance

Table 6

Organisational Size and Self-Protection Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.150a	.022	.018	6.37572	.022	4.944	3	648	.002	
2	.154b	.024	.018	6.37645	.001	.850	1	647	.357	1.946

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, job_current1_size

c. Dependent Variable: Self_Protection

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.014	1.807		10.520	.000
	gender	1.488	.530	.110	2.806	.005
	ethnicity	.221	.149	.058	1.486	.138
	age	.072	.029	.097	2.478	.013
2	(Constant)	18.330	1.954		9.383	.000
	gender	1.486	.530	.110	2.803	.005
	ethnicity	.231	.149	.061	1.548	.122
	age	.074	.029	.101	2.563	.011
	job_current1_size	.064	.069	.036	.922	.357

a. Dependent Variable: Self_Protection

Appendix D

Analyses: Professional Orientation and Retirement Planning

Table 7

*Professional Orientation
Frequencies*

		N
Profession	1.00	138
	2.00	152
	3.00	63
	4.00	20

Table 8

Professional Orientation Descriptive Statistics

	Profession	Mean	Std. Deviation	N
Public_Protection	1.00	13.8188	6.27268	138
	2.00	13.4342	6.07641	152
	3.00	14.7143	7.70092	63
	4.00	16.4000	7.44382	20
	Total	13.9517	6.53673	373
Self_Insurance	1.00	47.7174	13.16598	138
	2.00	46.7368	13.02862	152
	3.00	46.8730	14.42387	63
	4.00	55.7000	10.86811	20
	Total	47.6032	13.31820	373
Self_Protection	1.00	24.7246	6.55662	138
	2.00	24.7171	6.32604	152
	3.00	27.6190	6.45937	63
	4.00	30.2500	4.95108	20
	Total	25.5067	6.53675	373

Table 9

Professional Orientation Multivariates Test

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.918	1368.752[b]	3.000	367.000	.000
	Wi ks' Lambda	.082	1368.752[b]	3.000	367.000	.000
	Hotelling's Trace	11.189	1368.752[b]	3.000	367.000	.000
	Roy's Largest Root	11.189	1368.752[b]	3.000	367.000	.000
job_title_ByProfession	Pillai's Trace	.079	3.320	9.000	1107.000	.001
	Wi ks' Lambda	.922	3.356	9.000	893.332	.000
	Hotelling's Trace	.083	3.375	9.000	1097.000	.000
	Roy's Largest Root	.065	7.938[c]	3.000	369.000	.000

a. Design: Intercept + job_title_ByProfession

b. Exact statistic

Table 10

Professional Orientation Tests of Between Subjects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Public_Protection	199.661[a]	3	66.554	1.565	.198
	Self_Insurance	1460.640[b]	3	486.880	2.784	.041
	Self_Protection	910.254[c]	3	303.418	7.472	.000
Intercept	Public_Protection	42745.508	1	42745.508	1004.946	.000
	Self_Insurance	487083.381	1	487083.381	2785.592	.000
	Self_Protection	144489.907	1	144489.907	3558.015	.000
job_title_ByProfession	Public_Protection	199.661	3	66.554	1.565	.198
	Self_Insurance	1460.640	3	486.880	2.784	.041
	Self_Protection	910.254	3	303.418	7.472	.000
Error	Public_Protection	15695.470	369	42.535		
	Self_Insurance	64522.636	369	174.858		
	Self_Protection	14984.979	369	40.610		
Total	Public_Protection	88500.000	373			
	Self_Insurance	911226.000	373			
	Self_Protection	258566.000	373			
Corrected Total	Public_Protection	15895.131	372			
	Self_Insurance	65983.276	372			
	Self_Protection	15895.233	372			

a. R Squared = .013 (Adjusted R Squared = .005)

b. R Squared = .022 (Adjusted R Squared = .014)

c. R Squared = .057 (Adjusted R Squared = .050)

Table 11

Professional Orientation Multiple Comparisons Post-Hoc Test

Dependent Variable	(I) Profession	(J) Profession	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Public_Protection	1.00	2.00	.3846	.76685	1.000	-1.6495	2.4188
		3.00	-.8954	.99166	1.000	-3.5259	1.7350
		4.00	-2.5812	1.56044	.594	-6.7203	1.5580
	2.00	1.00	-.3846	.76685	1.000	-2.4188	1.6495
		3.00	-1.2801	.97724	1.000	-3.8723	1.3121
		4.00	-2.9658	1.55132	.340	-7.0808	1.1492
	3.00	1.00	.8954	.99166	1.000	-1.7350	3.5259
		2.00	1.2801	.97724	1.000	-1.3121	3.8723
		4.00	-1.6857	1.67389	1.000	-6.1258	2.7544
	4.00	1.00	2.5812	1.56044	.594	-1.5580	6.7203
		2.00	2.9658	1.55132	.340	-1.1492	7.0808
		3.00	1.6857	1.67389	1.000	-2.7544	6.1258
Self_Insurance	1.00	2.00	.9805	1.55482	1.000	-3.1437	5.1048
		3.00	.8444	2.01063	1.000	-4.4889	6.1777
		4.00	-7.9826	3.16386	.072	-16.3749	.4097
	2.00	1.00	-.9805	1.55482	1.000	-5.1048	3.1437
		3.00	-.1362	1.98139	1.000	-5.3919	5.1196
		4.00	-8.9632*	3.14536	.028	-17.3064	-.6199
	3.00	1.00	-.8444	2.01063	1.000	-6.1777	4.4889
		2.00	.1362	1.98139	1.000	-5.1196	5.3919
		4.00	-8.8270	3.39388	.058	-17.8295	.1755
	4.00	1.00	7.9826	3.16386	.072	-.4097	16.3749
		2.00	8.9632*	3.14536	.028	.6199	17.3064
		3.00	8.8270	3.39388	.058	-.1755	17.8295
Self_Protection	1.00	2.00	.0075	.74929	1.000	-1.9800	1.9951
		3.00	-2.8944*	.96895	.018	-5.4646	-.3242
		4.00	-5.5254*	1.52472	.002	-9.5698	-1.4810
	2.00	1.00	-.0075	.74929	1.000	-1.9951	1.9800
		3.00	-2.9019*	.95487	.015	-5.4348	-.3691
		4.00	-5.5329*	1.51580	.002	-9.5536	-1.5121
	3.00	1.00	2.8944*	.96895	.018	.3242	5.4646

	2.00	2.9019[*]	.95487	.015	.3691	5.4348
	4.00	-2.6310	1.63557	.651	-6.9694	1.7075
4.00	1.00	5.5254[*]	1.52472	.002	1.4810	9.5698
	2.00	5.5329[*]	1.51580	.002	1.5121	9.5536
	3.00	2.6310	1.63557	.651	-1.7075	6.9694

Based on observed means.

 The error term is Mean Square(Error) = 40.610.

*. The mean difference is significant at the .017 level.

Bonferroni Correction

Table 12

Professional Orientation Estimated Marginal Means

Dependent Variable	Profession	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Public_Protection	1.00	13.819	.555	12.727	14.911
	2.00	13.434	.529	12.394	14.474
	3.00	14.714	.822	13.099	16.330
	4.00	16.400	1.458	13.532	19.268
Self_Insurance	1.00	47.717	1.126	45.504	49.931
	2.00	46.737	1.073	44.628	48.846
	3.00	46.873	1.666	43.597	50.149
	4.00	55.700	2.957	49.886	61.514
Self_Protection	1.00	24.725	.542	23.658	25.791
	2.00	24.717	.517	23.701	25.734
	3.00	27.619	.803	26.040	29.198
	4.00	30.250	1.425	27.448	33.052

Appendix E

Analyses: Work-Centrality and Retirement Intentions

Table 13

Work-Centrality and Intention to Retire Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.765ᵃ	.585	.583	6.28322	.585	304.948	3	648	.000	
2	.765ᵇ	.586	.583	6.28395	.001	.850	1	647	.357	2.116

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, Work_Centrality

c. Dependent Variable: time_retire

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	58.365	1.781		32.768	.000
	age	-.860	.028	-.769	-30.225	.000
	gender	-.486	.523	-.024	-.929	.353
	ethnicity	.374	.147	.065	2.549	.011
2	(Constant)	56.805	2.457		23.121	.000
	age	-.862	.029	-.770	-30.227	.000
	gender	-.493	.523	-.024	-.942	.346
	ethnicity	.377	.147	.066	2.564	.011
	Work_Centrality	.055	.059	.023	.922	.357

a. Dependent Variable: time_retire

Appendix F

Analyses: Work-Centrality and Retirement Planning Behaviours

Table 14

Work-Centrality and Total Retirement Planning Behaviours Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.342[a]	.117	.113	20.89875	.117	28.688	3	648	.000	
2	.377[b]	.142	.137	20.62121	.025	18.560	1	647	.000	1.930

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, Work_Centrality

c. Dependent Variable: Total_RPB

Coefficients

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	46.455	5.924		7.841	.000
	age	.816	.095	.320	8.613	.000
	gender	-2.604	1.738	-.056	-1.498	.135
	ethnicity	.880	.488	.067	1.801	.072
2	(Constant)	22.534	8.062		2.795	.005
	age	.794	.094	.311	8.488	.000
	gender	-2.710	1.715	-.058	-1.580	.115
	ethnicity	.915	.482	.070	1.898	.058
	Work_Centrality	.841	.195	.157	4.308	.000

a. Dependent Variable: Total_RPB

Table 15

Work-Centrality and Public-Protection Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.411ᵃ	.169	.165	5.99943	.169	44.010	3	648	.000	
2	.427ᵇ	.182	.177	5.95673	.013	10.324	1	647	.001	1.915

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, Work_Centrality

c. Dependent Variable: Public_Protection

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.113	1.701		.067	.947
	gender	-.111	.499	-.008	-.223	.823
	ethnicity	-.225	.140	-.058	-1.601	.110
	age	.311	.027	.411	11.428	.000
2	(Constant)	-5.040	2.329		-2.164	.031
	gender	-.134	.495	-.010	-.271	.786
	ethnicity	-.217	.139	-.056	-1.558	.120
	age	.306	.027	.405	11.323	.000
	Work_Centrality	.181	.056	.114	3.213	.001

a. Dependent Variable: Public_Protection

Table 16

Work-Centrality and Self-Insurance Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.353[a]	.124	.120	12.73491	.124	30.663	3	648	.000	
2	.372[b]	.138	.133	12.64124	.014	10.639	1	647	.001	1.904

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, Work_Centrality

c. Dependent Variable: Self_Insurance

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.328	3.610		7.570	.000
	gender	-3.980	1.059	-.140	-3.758	.000
	ethnicity	.883	.298	.110	2.966	.003
	age	.433	.058	.278	7.510	.000
2	(Constant)	16.226	4.942		3.283	.001
	gender	-4.029	1.051	-.142	-3.833	.000
	ethnicity	.899	.296	.112	3.043	.002
	age	.423	.057	.271	7.382	.000
	Work_Centrality	.390	.120	.119	3.262	.001

a. Dependent Variable: Self_Insurance

Table 17

Work-Centrality and Self-Protection Hierarchical Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.150ᵃ	.022	.018	6.37572	.022	4.944	3	648	.002	
2	.229ᵇ	.052	.047	6.28172	.030	20.538	1	647	.000	1.947

a. Predictors: (Constant), ethnicity, age, gender

b. Predictors: (Constant), ethnicity, age, gender, Work_Centrality

c. Dependent Variable: Self_Protection

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.014	1.807		10.520	.000
	age	.072	.029	.097	2.478	.013
	gender	1.488	.530	.110	2.806	.005
	ethnicity	.221	.149	.058	1.486	.138
2	(Constant)	11.348	2.456		4.621	.000
	age	.065	.029	.088	2.271	.023
	gender	1.454	.522	.108	2.783	.006
	ethnicity	.233	.147	.061	1.585	.114
	Work_Centrality	.269	.059	.174	4.532	.000

a. Dependent Variable: Self Protection