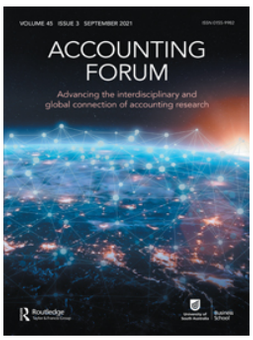

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Enrolment motivation of accounting doctoral students: professionally qualified and non-professionally qualified accountants

Anne Marie Ward [a], Niamh M. Brennan [b] and Judith Wylie [a]

[a]Department of Accounting, Finance and Economics, Ulster University, Antrim, UK; [b]College of Business, University College Dublin, Dublin, Ireland

ABSTRACT

The gap between accounting research and practice can be bridged by academic faculty who are professionally qualified and research trained. However, accounting suffers an acute shortage of accounting doctoral graduates, especially those with a professional accounting qualification, due to a lack of enrolments. This study examines the motivation of 36 accounting doctoral students, including 13 professionally qualified and 23 non-professionally qualified, to provide insights on what makes accounting doctoral education attractive to potential doctoral applicants. Their motivation is analysed using self-determination theory (SDT), which predicts that enrolment to doctoral education is more likely with self-motivated or self-determined individuals. Motivations for enrolling for doctoral education include expectations of a career in academia, enjoyment of research or interest in the topic, status of the PhD qualification and work-life balance. Professionally qualified doctoral students were motivated to enrol because of dissatisfaction with their professional career and lack of autonomy. The paper identifies five motivations for enrolling for doctoral education not reported in the prior literature.

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Accounting doctoral education; enrolment; extrinsic motivation; intrinsic motivation; interview methodology; self-determination theory

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1. Introduction

The literature identifies academic labour shortages in the accounting discipline in the UK (Beattie & Smith, 2012; Smith & Urquhart, 2018), the US (Boyle et al., 2013; Fogarty & Holder, 2012; Fogarty & Markarian, 2007; Plumlee & Reckers, 2014) and Australia (Irvine et al., 2010). In particular, Boyle et al. (2013), Plumlee and Reckers (2014), Prescott et al. (2017) and Smith and Urquhart (2018) note a shortage of professionally qualified, research-active accounting academics. Lack of enrolment in accounting doctoral programmes accentuates the problem (Paisey & Paisey, 2017). Thus, faculty positions are filled with research-active doctoral graduates from other disciplines, such as economics. Professionally qualified accountants who are not doctoral qualified service professionally accredited modules (Smith & Urquhart, 2018 in the UK; Zeff, 2019 in

CONTACT Anne Marie Ward am.ward@ulster.ac.uk

the US). Consequently, academic faculty in some universities comprises two cohorts, as noted by the US Association to Advance Collegiate Schools of Business (AACSB, 2018): those academically trained (for example, PhD qualified) and those professionally trained (for example, chartered accountants and certified public accountants). Thus, academics argue that a gap exists between academic accounting research and professional practice (Guthrie et al., 2011; Smith & Urquhart, 2018), and there are questions about the quality of accounting education (Boyce et al., 2019).

Professionally qualified accounting academics can foster links between theory and practice by undertaking research that informs policy and prepares students for entry to the profession (Palatnik & Abbott, 2018). Professional bodies wish to improve links with accounting academia, and several have implemented strategies to reduce the shortfall in professionally qualified doctoral graduates (Boyle et al., 2013). For example, the Institute of Chartered Accountants in England and Wales' (ICAEW) Livery Charity funds chartered accountants to undertake doctoral studies (ICAEW, 2021; Lindsay, 2021). Similarly, the American Institute of Certified Public Accountants' funds professionally qualified accountants through their Accounting Doctoral Scholars programme (Prescott et al., 2017). Academic views and professional bodies' funding confirm a market for professionally and academically trained accounting lecturers. Professionally qualified doctoral students do not fill this market, even after professional bodies' funding.

Knowing what motivates individuals to act is more likely to yield better-designed strategies to improve recruitment and admissions criteria to doctoral programmes. Motivation is complex and multi-dimensional. Individuals experience different, often conflicting, motivations. When the motivations in support of a task dominate the motivations for not engaging with the task, action results (Alkaabi et al., 2017). Moreover, motivation is fluid as individuals "regulate" motivation in response to their environment (Ryan & Deci, 2000). Despite calls for more professionally qualified accounting doctoral students from academics and the professions, only one study has examined why professionally qualified lecturers choose to pursue doctoral education. de Jager et al. (2018) used a deductive approach to research professionally qualified individuals already employed in universities. Therefore, to provide further insights into the motivation of accounting doctoral students, we adopt an abductive approach to developing our analytical framework, which involves an iterative process of going back and forth between our theory and the data. This approach enables us to identify new motivations. We investigate the research question: How do the motives of professionally qualified accountants and non-professionally qualified individuals to enrol for accounting doctoral education differ?

This study frames accounting doctoral student motivations through Deci and Ryan's (1985) self-determination theory (SDT) to provide insights on accounting doctoral-student enrolment motivation. SDT asserts that enrolments and engagement are most likely when students perceive that doctoral education will fulfil their psychological need for competence, relatedness, and autonomy. We obtained data on enrolment motivation using surveys and interviews with 36 accounting doctoral students enrolled at higher-education institutions in Ireland.

The study makes three contributions to the literature. First, we identify motivational differences between professionally qualified and non-professionally qualified doctoral students. Specifically, half of the professionally qualified doctoral students enrolled for

doctoral education as they were dissatisfied with their current role. They anticipated that a career in academia would fulfil the key motivational deficit that alienated them from their professional careers – lack of autonomy. They were also more likely to refer to the status of the PhD qualification and enjoyment of research or interest in their topic than non-professionally qualified doctoral students. In contrast, non-professionally qualified doctoral students were more likely to have enrolled for financial motives and knowledge attainment.

Despite providing valuable insights on accounting doctoral student characteristics and behaviour, the few studies examining individuals' motivation to enrol for accounting doctoral education (Beattie & Smith, 2012; de Jager et al., 2018; Smith & Urquhart, 2018) lack a theoretical framing. Given this gap, our second contribution is the framing of Ryan and Deci's (2000) SDT taxonomy of human motivation to create an analytical framework customised to an accounting doctoral context.

In our third contribution, we identify five motivations for enrolling in doctoral studies not previously reported in the literature: (i) "dissatisfaction with current role" (specific to those who left a career in accounting), (ii) "pressure from the university" (specific to interviewees who are teaching associates), (iii) "inform teaching" (specific to interviewees who are teaching associates), (iv) "interaction with other researchers" (specific to non-professionally qualified interviewees), and (v) "autonomy over work."

The paper is structured as follows. Section 2 reviews the prior literature, and Section 3 provides the theoretical framing. Section 4 outlines the data and methodology. Section 5 discusses the key findings. Finally, we consider the conclusions and potential policy implications of the study in Section 6.

2. Prior literature

2.1. Accounting education and research

The accounting profession comprises policy, practice and research (Laughlin, 2011). Accounting faculty should provide a link between these pillars that ensures the sustainability of the accounting profession (Guthrie & Parker, 2016). However, some believe academic faculty have failed to provide that link. On the one hand, some researchers argue that accounting research is not sufficiently focused on the profession and has little impact (Beattie & Smith, 2012; Guthrie et al., 2011). For example, Hopwood (2008, p. 8) comments that there are "more and more accounting researchers who know less and less about accounting practice." Also, they claim that non-professionally qualified academics are not equipped to teach technical accounting material (Smith & Urquhart, 2018) and cannot provide the practical experience to enhance student learning (Fogarty & Black, 2014). On the other hand, other researchers argue that accounting education is too professionally focused. There is too much focus on rules and procedures, with insufficient attention to the wider issues pertinent to accounting, including accounting theories, principles, ethics, public interest and social responsibility (Boyce et al., 2019). This disparity has led to calls for better communication between university accounting departments and the profession to narrow the research-practice gap and improve accounting education (Boyce et al., 2019; Paisey & Paisey, 2017).

Integrating the skills of a professionally orientated faculty with relevant and high-impact academic research prepares students for the future of work as accountants and contributes favourably to business, society and the wider economy (Boyle et al., 2013; Hopwood, 2008). Therefore, Palatnik and Abbott (2018) argue that academics with professional and research skills can bridge the research-practice gap. Indeed, Paisey and Paisey (2017, p. 72) report that accounting department managers identify an "ideal" academic as being "able to produce rigorous and high-quality research, to teach to a high standard, to fuse academic and professional knowledge and experience, and foster relationships with the wider accounting community."

2.2. Demand for and supply of accounting doctoral graduates

Since the 1960s, the number of students pursuing accounting in universities has increased and, in tandem, the demand for accounting faculty increased (Beattie & Smith, 2012; Zeff, 2019). However, the supply of doctoral graduates, especially professionally qualified doctoral graduates, has declined. The proportion of university courses serviced by professionally qualified academics who are not research trained has increased (Beattie & Smith, 2012; Plumlee & Reckers, 2014; Smith & Urquhart, 2018). Prescott et al. (2017) find that 70% of accounting programme administrators report a shortage of professionally qualified academics who are doctoral qualified, which harmed their programme.

The literature typically identifies that the problem stems from two sources: A shortage of enrolments to accounting doctoral programmes (Paisey & Paisey, 2017) and problems with completion, notwithstanding demand and subsidisation of doctoral study (Plumlee & Reckers, 2014; Smith & Urquhart, 2018). The literature on career change identifies a potential market for academic careers from within the ranks of professional accountants as ten percent of professional accountants identified that they want to change career (Haurant, 2016).

3. Motivation and self-determination theory (SDT)

Many theories and perspectives explain human motivation, including the psychodynamic, humanistic, behavioural and cognitive perspectives (Alkaabi et al., 2017; de Oliveira Durso et al., 2016). Psychodynamic perspectives assume that subconscious thinking formed by earlier experiences in life affects people's actions. Hence, the past dictates current behaviour. In contrast, humanistic perspectives focus on conscious thoughts and believe that humans control their actions and the "here and now" influences action. de Oliveira Durso et al. (2016) consider psychodynamic and humanistic theories too narrow to fully explain human behaviour as they do not sufficiently address inner emotion and cognition.

The behavioural perspective focuses on environmental factors, such as rewards and punishments, and considers these stimuli to be key drivers of human action (Cheng & Yeh, 2009). Researchers also criticise this perspective as being too narrow. It assumes that all human learning arises from experiences shaped by the external environment and does not view internal thought processing or emotion as influential. Finally, the cognitive perspective considers that action arises after conscious processing by individuals,

influenced by individuals' personal goals. Trautwein et al. (2012) argue that the cognitive perspective is the most congruent of the four approaches for explaining student motivation. It allows for external stimuli and internal processing of the stimuli in the context of individuals' psychological needs and ultimate goals. Several theories have emerged under the cognitive perspective, including goal-setting theory, expectancy theory, expectancy-value theory and SDT.

Under goal-setting theory, goals are desired outcomes, different from individuals' actual outcomes (Locke, 1991). In explaining student motivation, this theory predicts student engagement when goals are achievable, successful progress is observable, the task is reasonably challenging, and the outcome is desirable to individuals. There are overlaps between goal-setting theory and expectancy theory. Vroom's (1964) expectancy theory considers that motivation is sustained when there is a link between perceived ability, effort and achievement, where achievement is a goal (Alkaabi et al., 2017). In the context of education, this theory assumes three types of motivation: motivation to learn (interest in the programme content), motivation to transfer (interest in applying the learned content) and expectancy motivation (personal effort to achieve the desired outcome) (Noe, 1986). Expectancy-value theory expands expectancy theory to include an affective component, task value. Value is derived when the programme material is "interesting, useful and important to students" (Pintrich et al., 1993, p. 183).

Under SDT, various types of motivations regulate human behaviour (Deci & Ryan, 1985). The motivations lie on a continuum of self-determination, from controlled to full-autonomy, and are classified according to three main motivation types: amotivation, extrinsic motivation and intrinsic motivation (Figure 1) (Deci & Ryan, 1985; Ryan & Deci, 2000). The first motivation type, amotivation, occurs when individuals believe they do not have the competence for the task, believe the task is unimportant, or perceive no benefit from their behaviour and the outcome (Ryan & Deci, 2000).

The second motivation type, extrinsic motivation, arises when individuals engage with an activity as "a means to an end" rather than from interest in the activity. External

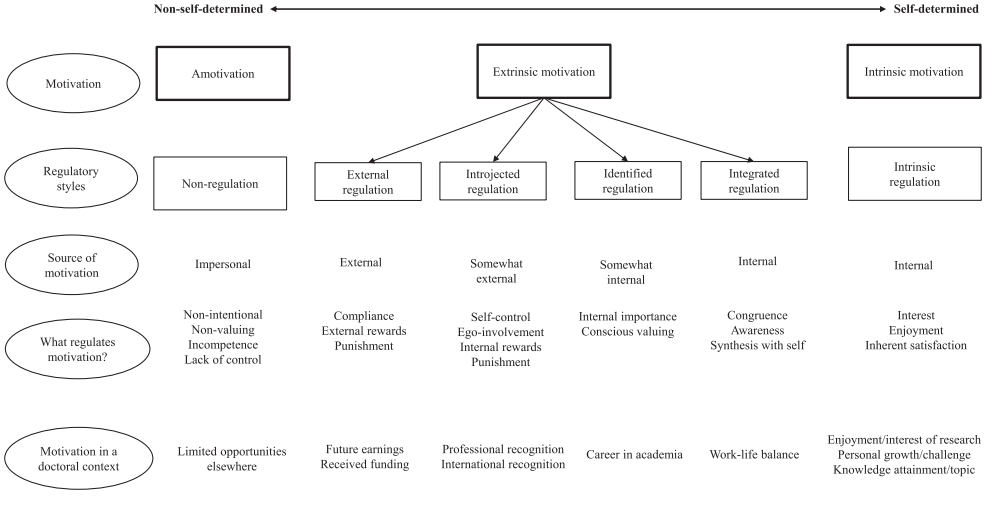

Figure 1. Analytical framework – self-determination theory applied to accounting student doctoral motivation on enrolment.

motivation results from rewards/incentives or punishments external to individuals (Litalien et al., 2015). Under SDT, individuals' reactions to external incentives or punishments depend on the extent to which individuals regulate their behaviour (Ryan & Deci, 2000). Regulation includes thoughts or actions that individuals take to influence their motivation for a task. The regulation process is referred to as internalisation and integration (Ryan & Deci, 2000). Internalisation occurs when individuals adopt and value an extrinsic incentive. Integration occurs when regulation is further transformed into personal internal values or needs (Ryan & Deci, 2000). This process is vital to sustaining action. For example, individuals may conclude that their behaviour is what they want to do, that it helps them achieve personal goals that are important to them. In these instances, individuals control the external incentive and view it as congruent with an internal incentive. They consider it to be partially self-determined. Therefore, individuals perceive autonomy over their behaviour, even though their behaviour responds to external stimuli.

To provide a more nuanced consideration of this regulatory process, Ryan and Deci (2000) identify four regulatory styles responding to extrinsic motivation, called "external", "introjected", "identified", and "integrated" regulation, which have increased levels of perceived autonomy/self-determination for the resultant action (Figure 1). External regulation is when individuals consider external stimuli from others control their actions. The stimuli can be rewards or punishments (Litalien et al., 2015; Ryan & Deci, 2000). When regulation is external, individuals perceive little autonomy over the stimuli and feel pressure from the external source (de Oliveira Durso et al., 2016). Introjected regulation is when individuals feel compelled to undertake the task by self-imposed sanctions, for example, to avoid guilt or for pride or egotistical motives (Litalien et al., 2015; Ryan & Deci, 2000). While there is some internalisation, individuals perceive that the locus of control over the decision is external. Under identified regulation, the level of internalisation is increasing. Even though the stimuli for the action are external to them, individuals feel that the action is personally important to them (Deci & Ryan, 1985). Hence, they feel they have more autonomy over their behaviour. Finally, integrated regulation is when individuals believe they have full autonomy over their actions, which they perceive to be a personal need. However, though fully integrated, autonomy over actions is classified as extrinsic as the achieved goal arises from external stimuli and not simply from the enjoyment of the action (Litalien et al., 2015).

The third motivation type, intrinsic motivation, is when motivation is fully self-determined. Intrinsic motivation arises when the interest, satisfaction and enjoyment experienced by the action motivate individuals to act (Deci et al., 1991; Deci & Ryan, 1985).

The degree of self-determination depends on whether individuals believe that undertaking the action will satisfy three basic psychological needs – competence (the need to effectively interact with the environment to achieve outcomes), relatedness (to feel connected with significant others), and autonomy (the need to feel in control of their behaviour or belief) (Deci & Ryan, 1985). Thwarting these needs damages intrinsic motivations, regulatory styles, and individuals' well-being (Ryan & Deci, 2000).

Researchers have applied goal-setting theory, expectancy theory, expectancy-value theory and SDT to explain student motivation. However, SDT has the best explanatory power (de Oliveira Durso et al., 2016). Unlike goal-setting theory, it does not focus on identifying goals that are typically varied and difficult to identify. Also, unlike goal-setting theory and expectancy theory, SDT predicts that task value is vital to motivation.

Task value is particularly relevant for doctoral education, requiring students to engage with specific tasks for a substantial period. There are overlaps between expectancy-value theory and SDT, as expectancy-value theory recognises the importance of intrinsic incentives such as personal interest. However, SDT goes further in explaining the internalisation and integration of extrinsic incentives. Hence, it is most appropriate for examining motivation in doctoral students. SDT enables motivation types to be classified into sub-types, to identify a more nuanced evaluation of the kind or quality of motivation relating to specific behaviours (de Oliveira Durso et al., 2016; Litalien et al., 2015; Ryan & Deci, 2000).

Figure 1 frames Ryan and Deci's (2000) SDT taxonomy of human motivation in the context of doctoral education. The analytical model portrays a self-determination continuum that ranges from non-self-determined (controlled) to self-determined (full autonomy). As already discussed, the framework covers the main motivation types, regulatory styles, sources of motivation and what regulates motivation. We map nine motivation sub-types, obtained from a review of the accounting doctoral education literature (Beattie & Smith, 2012; Kachelmeier et al., 2005), to each regulatory style.

The first motivation type in Figure 1 is amotivation. When this motivation type is prevalent, doctoral students do not value doctoral education; they do not make a conscious choice to pursue doctoral education; external factors influence their decision to enrol. Limited employment opportunities after undergraduate studies exemplify amotivation ("no other alternatives" – motivation sub-type 1 in Figure 1).

The second motivation type is extrinsic motivation, which SDT classifies into four regulatory styles, external, introjected, identified and integrated regulation. Monetary incentives are a reward that is unrelated to the task of doctoral education (Litalien et al., 2015). Therefore, in the context of doctoral education, "funding received" and "future earnings" (motivation sub-types 2 and 3 in Figure 1) exemplify external regulatory style. Indicators of introjected regulatory style include professional recognition ("status of PhD qualification"), success in undergraduate/postgraduate study and international recognition ("ego" – motivation sub-type 4 in Figure 1) (Ryan & Deci, 2000). These indicators suggest that students identify self-imposed personal benefits from the outcome of doctoral education separate from the benefits from the activity itself. Enrolling for accounting doctoral education as a means of obtaining a "career in academia" (motivation sub-type 5 in Figure 1) exemplifies identified regulatory style as individuals consciously value doctoral education as essential to achieving their career identity (Ryan & Deci, 2000).

Finally, consistent with accounting doctoral students' internal values and objectives in life, an indicator of an integrated regulatory style is "work-life balance" (motivation sub-type 6 in Figure 1). This motivation sub-type exemplifies individuals identifying that autonomy over time and task is important to them. Individuals align doctoral education as necessary to achieve this autonomy (Ryan & Deci, 2000). Motivation sub-types for enrolling for accounting doctoral education indicative of the third motivation type, intrinsic motivation, include "enjoyment of research/interest in topic", "personal growth/intellectual challenge" and "knowledge attainment" (Ryan & Deci, 2000) (motivation sub-types 7, 8 and 9 in Figure 1). These motivation sub-types are directly related to task performance. They originate from the student and hence are fully self-determined. In Section 4, we operationalise the framework and apply it to our study.

4. Data and methodology

4.1. Data

The study site was accounting doctoral students studying on the island of Ireland (Republic of Ireland and Northern Ireland, which is part of the UK). While there are system differences for academics between the two jurisdictions (for example, the UK research excellence framework only applies in Northern Ireland), these system differences do not extend to doctoral education. Ireland is an ideal jurisdiction to source the data, as the ten higher-education institutions that provide doctoral education offer traditional "apprentice-master" type doctorates (Quality Assurance Agency, 2020; Ward et al., 2020), which in global terms are more common than professional doctorates (Clarke & Lunt, 2014). Traditional doctoral programmes vary across and within countries. However, they typically involve structured classes in the first year with the doctoral award conditional on investigating a unique research problem under guidance from a small team of research-trained supervisors (Clarke & Lunt, 2014; Quality Assurance Agency, 2020). Ward et al. (2020) record 80 doctoral enrolments on the island of Ireland between 2004 and 2014. Of the 80 enrolments, 36 participated in our study.

4.2. Methodology

We used a mixed-methods approach, including a survey followed by semi-structured interviews, to obtain deeper insights into influences on accounting doctoral student motivations.

4.2.1. Survey

The survey recorded individuals' characteristics, including background details (gender, nationality and employment status), their doctoral education (mode of attendance) and professional-qualification status (see Table 1). The sample comprised 13 professionally qualified and 23 non-professionally qualified accounting doctoral students. We assess the differences between the two professional-qualification groups for significance using Pearson chi-square tests.

The sample comprised 16 males and 20 females; 27 were national, from either the Republic of Ireland or Northern Ireland, while the remaining nine were from outside Ireland. There was no significant difference in either gender or nationality across the two professional-qualification groups. However, professionally qualified accounting doctoral students were more likely to be employed (11 out of the 13 are academics) and enrolled part-time, relative to the non-professionally qualified accounting doctoral students.

In terms of influences on the decision to enrol for doctoral education, the survey instrument asked interviewees to rank each of the nine motivation sub-types identified in the prior literature (last row of Figure 1), on a Likert scale from one to seven, where one represents not influential and seven indicates greatly influential.

4.2.2. Interviews

We conducted interviews at the Irish Accounting and Finance Association annual conference and doctoral colloquium in 2016, at students' respective third-level

Table 1. Interviewee personal and doctoral characteristics by professional-qualification status.

	Professional-qualification status			Difference
	Qualified No.	Non-qualified No.	Total No.	Pearson chi-square (signif.)
Personal characteristics				
Gender				
Male	6	10	16	
Female	7	13	20	
Total	*13*	*23*	*36*	0.02 (0.88)
Nationality				
Republic of Ireland/Northern Ireland	12	15	27	
Other	1	8	9	
Total	*13*	*23*	*36*	4.03 (0.26)
Employed				
Yes(teaching in university)	12(11)	8(5)	20(16)	
No	1	14	15	
Total[a]	*13*	*22*	*35*	10.44 (0.01)**
Doctoral characteristics				
Mode of attendance				
Part-time	10	4	14	
Full-time	3	19	22	
Total	*13*	*23*	*36*	12.39 (0.00)***

[a]One interviewee did not complete this question.
**significant at 5%; ***significant at 1%.

institutions, and via Skype (2016 and 2017). We first piloted the survey and interviews with two doctoral students at one author's institution (one professionally qualified, one non-professionally qualified). We made minor refinements to the survey instrument and some interview questions. A second pilot study with three doctoral students resulted in no further amendments. As the changes made to the questions would not alter the answers provided, we include the pilot study results in the final analysis. We provided a list of the open-ended questions to interviewees in advance, to help them prepare more thoughtful responses. Interview questions focused on identifying participants' initial motivation for enrolling. When interviewees identified that they were professionally qualified accountants, we asked them why they changed careers. Interviews lasted between 12 min and just over 100 min. Short interviews typically occurred when participants had only been enrolled for a short time. In total, interviews lasted over 25 hours and generated 408 pages (183,010 words) of interview data for analysis.

We analysed the interview data in four phases. The first phase involved focused topic coding using Microsoft Word and Excel, based on the analytical framework in Figure 1. Topic coding included mining interview transcripts for evidence of the three main motivation types in Figure 1: amotivation, extrinsic and intrinsic motivation. The second phase involved collating the coded responses into meaningful motivation sub-types using Excel. We allocated the coded sentences to one or more of the six regulatory styles in Figure 1 (i.e. no regulation, external, introjected, identified, integrated, intrinsic regulation) before finally determining a succinct description for each motivation sub-type. For example, we coded references to the wish to improve research skills, knowledge and intellectual curiosity under one heading, "knowledge attainment" (sub-type 9 in Figure 1).

The final phase of the analytical process involved evaluating the outcomes (the motivation types/sub-types identified) for saturation, sufficiency, focus and fit. To provide a systematic approach to evaluating the importance of individual motivation types/sub-types across the interviewees, we coded the interview responses in Excel. For example, if interviewees identified dissatisfaction with their role, we coded the response one; when interviewees did not mention this, we coded the response zero. We then transferred the codes to the software package, SPSS, to analyse the frequency of motivation types/sub-types identified in the interviews. We analysed motivations by type (amotivation, extrinsic or intrinsic), regulatory style (no regulation, external, introjected, identified, integrated, intrinsic regulation) and professional-qualification status. We summarise the findings in Table 3.

5. Findings and discussion

5.1. Analysis of preliminary survey

Table 2 reports the survey responses. Except for "no other alternatives", respondents perceived motivations identified in the prior literature to be relevant to their decision to enrol, as all total scores have a mean value over 3.5. As predicted under SDT, given higher overall mean values, respondents found intrinsic motivations (motivation sub-types 7–9) and extrinsic introjected/identified/integrated regulated motivations (motivation sub-types 4–6) to be more influential than external regulated motivations (motivation sub-types 2 and 3) and amotivation (motivation sub-type 1). Respondents considered the most influential motivation on their decision to enrol for accounting doctoral education to be "personal growth/intellectual challenge" (mean 6.08), followed by "career in academia" (mean 5.89).

Professionally qualified accounting doctoral students scored higher, obtaining a "career in academia" and the "status of PhD qualification", relative to non-professionally qualified accounting doctoral students. In contrast, non-professionally qualified doctoral students scored "received funding" higher (Table 2). This difference is not surprising, given that, at the time of the research, 11 of our 13 professionally qualified accounting doctoral students were employed in lecturing posts, and most non-professionally qualified accounting doctoral students were completing their PhD full-time. Thus, factors other than professional-qualification status may have influenced the findings. In all other instances, the scoring for the individual motivations was similar between the two groups.

5.2. Analytical framework for enrolment to accounting doctoral education

In the main, the interviewee motivations correspond to those in the literature. However, interviewees identified five motivation sub-types that are not clearly evident in prior research, including: "dissatisfaction with current role" (amotivation), "pressure from the university" (extrinsic – external regulation), doctoral education will "inform teaching" (extrinsic – identified regulation), "interaction with other researchers" (intrinsic – relatedness) and "autonomy over work" (intrinsic – autonomy). Given these findings, in Figure 2 we extend our analytical framework of

Table 2. Mean Likert scores for survey responses by professional-qualification status

	Professional-qualification status			
	Qualified No. 13	Non-qualified No. 23	Total No. 36	Difference t-test (signif.)
	Average Likert score[a]			
Amotivation sub-type				
1. No other alternatives	1.46	1.79	1.67	−0.48 (0.64)
Extrinsic motivation sub-types (regulatory style)				
2. Received funding (*external*)	2.23	4.45	3.63	−3.23 (0.00)***
3. Future earnings (*external*)	3.54	3.55	3.54	−0.01 (0.99)
4. Status of PhD qualification (*introjected*)	5.76	4.00	4.64	4.37 (0.00)***
5. Career in academia (*identified*)	6.38	5.61	5.89	2.71 (0.01)***
6. Work-life balance (*integrated*)	3.46	3.78	3.67	−0.42 (0.68)
Intrinsic motivation sub-types (psychological need)				
7. Enjoyment of research/interest in topic[b]	4.00	4.50	4.31	−0.82 (0.42)
8. Personal growth/intellectual challenge (*competence*)	5.92	6.17	6.08	−0.60 (0.55)
9. Knowledge attainment (*competence*)	5.31	5.09	5.17	0.40 (0.69)

[a]Where one indicates that the motivation is not influential and seven indicates that the motivation is influential to a great extent on the decision to enrol for doctoral education.
[b]Under SDT enjoyment and interest are evident when the three basic psychological needs are met.
***significant at 1% (two-tail test).

enrolment motivations to accounting doctoral education to include all 14 motivation sub-types.

5.3. Analysis of motivation types and sub-types identified In interviews

Motivation is complex. Our 36 interviewees identified a total of 169 influences on their decision to enrol for accounting doctoral education. This frequency equates to an average motivation sub-types per interviewee of 4.69 (Table 3: Panel A). This finding confirms that behaviour is not a function of a singular motivation but reflects several types/sub-types.

In Table 3, Panel A, we analyse the 169 motivation sub-types by the three motivation types (amotivation, extrinsic and intrinsic) and six regulatory styles (non-regulation, external, introjected, identified, integrated and intrinsic) across qualification status and in total. Thirteen interviewees identified amotivational sub-types, classified as

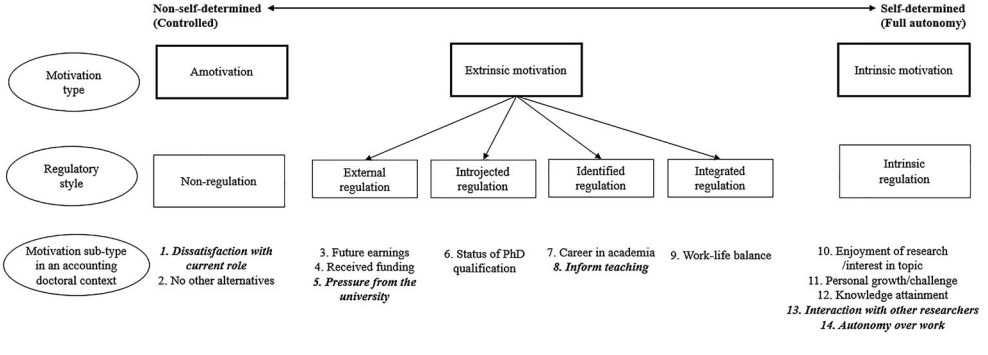

Figure 2. Extended analytical framework – motivations for enrolment to accounting doctoral education. Key: Motivations 1, 5, 8, 13 & 14 (in bold italics) represent five motivations not explicitly identified in the prior literature.

Table 3. Enrolment motivation frequency by professional-qualification status – interview responses.

		Professional-qualification status				
		Qualified		Non-qualified		Total
		No.	(%)	No.	(%)	No.
		13	(100)	23	(100)	36
Panel A: *Motivation sub-types* (Bold text highlights new motivations)						
Amotivation sub-types (regulatory style)						
1.	**Dissatisfaction with current role (*non-regulation*)**	**6**	**(46)**	**2**	**(9)**	**8**
2.	No other alternatives (*non-regulation*)	1	(8)	4	(17)	5
Total		7		6		13
Extrinsic motivation sub-types (regulatory style)						
3.	Future earnings (*external*)	2	(15)	6	(26)	8
4.	Received funding (*external*)	1	(8)	6	(26)	7
5.	**Pressure from the university (*external*)**	**5**	**(38)**	**2**	**(9)**	**7**
Sub-total		*8*		*14*		*22*
6.	Status of PhD qualification (*introjected*)	10	(77)	11	(48)	21
7.	Career in academia (*identified*)	10	(77)	19	(83)	29
8.	**Inform teaching (*identified*)**	**2**	**(15)**	**1**	**(4)**	**3**
9.	Work-life balance (*integrated*)	8	(61)	13	(56)	21
Sub-total		*30*		*44*		*74*
Total		38		58		96
Intrinsic motivation sub-types (psychological need)						
10.	Enjoyment of research/interest in topic[a]	11	(85)	12	(52)	23
11.	Personal growth/intellectual challenge (*competence*)	6	(46)	11	(48)	17
12.	Knowledge attainment (*competence*)	5	(38)	14	(61)	19
13.	**Interaction with other researchers (*relatedness*)**	**–**	**–**	**4**	**(17)**	**4**
14.	**Autonomy over work (*autonomy*)**	**4**	**(31)**	**6**	**(26)**	**10**
Total		26		47		73
Total motivation sub-types		64		105		169
Average motivation sub-types		4.92		4.57		4.69
Panel B: *Dominance of motivation type frequency*						
More extrinsic		7	(54)	15	(65)	22
Same		2	(15)	1	(4)	3
More intrinsic		4	(31)	7	(30)	11
Total		13		23		36

[a]Under SDT enjoyment and interest are evident when the three basic psychological needs are met.

"dissatisfaction with current role" and "no other alternatives." Extrinsic motivation sub-types were the largest proportion (96 out of 169) of interviewee sub-type motives. Of these 96 motivations, interviewees identified 22 external regulatory styles, with the remaining 74 classified as introjected/identified/integrated regulatory styles. Consistent with SDT, interviewees mostly cited higher quality motivations for enrolling: 29 out of 36 interviewees identified "career in academia" (extrinsic – identified) and 23 out of 36 mentioned "enjoyment of research/interest in topic" (intrinsic). Ryan and Deci (2000) identify that individuals can be extrinsically motivated and still committed and authentic when these motivations are internalised and integrated.

Deciphering which motivation *type* is most pertinent is difficult. Though crude, we analysed the overall frequency of motivation sub-types to determine the dominant motivation type for each interviewee (Table 3: Panel B). For 22 interviewees, extrinsic motivations were more numerous, whereas 11 interviewees identified more intrinsic motivations for enrolling. Finally, we asked interviewees to identify their single main motivation, of all motivations provided, for pursuing doctoral education. Table 4 summarises the results.

Four non-professionally qualified interviewees identified that their main amotivation for enrolling for doctoral education was that they had no other alternatives at that time.

However, consistent with Table 3 and SDT, the remaining 32 interviewees identified regulated extrinsic or intrinsic motivations. This finding confirms that they felt autonomy over their decision. Consistent with Beattie and Smith (2012), most stated that their main motivation was the goal of obtaining a career in academia (23). Nine interviewees identified motives indicative of intrinsic motivation – "personal growth/intellectual challenge" (five) and "interest in the topic" (four).

5.4. Triangulation between survey and interview responses

In the main, the pattern of findings obtained from the survey responses was similar to those identified from the interviews, with one exception. The survey results indicated that "future earnings" influenced both cohorts, who rated them similarly on the Likert scale (Table 2: both averages are above 3.5, and are similar). Yet, in the interviews, several interviewees did not mention future earnings, and a higher proportion of non-professionally qualified interviewees (Table 3, 26%) identified "future earnings" as important compared with 15% of professionally qualified interviewees. This disparity of findings is hard to explain. It may be a consequence of our mixed-methods approach, wherein the survey questions were closed-ended, specifying the motivation and asking respondents to rate it on a Likert scale. In contrast, the interview questions were open-ended, with us asking interviewees what motivated them. Thus, for many interviewees, the strength of this future-earnings incentive as a driver of action was weaker than suggested by the survey findings. Future research might address this discrepancy.

5.5. Analysis and discussion of interview responses

We now discuss the resultant themes for each motivation type: amotivation, extrinsic and intrinsic by professional-qualification status.

5.5.1. Amotivation

Seven professionally qualified interviewees and six non-professionally qualified interviewees identified motives for enrolling for doctoral education unrelated to the task of doctoral education. The professionally qualified doctoral students were asked why they left the profession to pursue doctoral studies. Six professionally qualified interviewees stated that, while they enjoyed their professional role, their core motive for leaving the profession was to become a lecturer (Table 4). These six interviewees had a clear goal,

Table 4. Main motivation sub-type by professional-qualification status – interview responses.

	Professional-qualification status				Total
	Qualified		Non-qualified		
	No.	(%)	No.	(%)	No.
Main motivation sub-type (*motivation type*)	13		23		36
1. No other alternatives (*amotivation*)	0	(0)	4	(17)	4
7. Career in academia (*extrinsic*)	6	(46)	17	(74)	23
10. Enjoyment of research/interest in topic (*intrinsic*)	2	(15)	2	(9)	4
11. Personal growth/intellectual challenge (*intrinsic*)	5	(38)	0	(0)	5

and forfeiting a professional career in favour of doing a doctorate was a necessary action to achieve this goal.

However, the remaining seven interviewees (five women and two men) left the profession because of dissatisfaction with their current or potential career, which they felt was not meeting their physiological and psychological needs (Table 3).[1] Consistent with SDT's core tenets, a lack of appreciation of competence (one) or competence not developed (one), relatedness within the work setting (two) and autonomy (seven) were the main needs not met in their professional careers. In all instances, interviewees did not feel that they were in control of their behaviour.

Findings differ depending on the interviewees' gender. Females claimed that a professional career undermined their physiological (resulting in stress) and psychological (conscious and unconscious) needs. All five female interviewees commented that a professional career was not family friendly, which did not fit their overall long-term life aspirations. For example, one female interviewee married to a professional accountant noted: "I wanted a family friendly life … we were both pulling 60–70 h per week, we were working very hard, and I wanted a change." Another female interviewee noted: "the kids were young, and it didn't suit me to work late nights, every night." All female interviewees confirmed that they enjoyed their professional job. However, their professional environment did not support their physiological needs (Ryan & Deci, 2000). Hence, the task-specific goal of working as professional accountants was not consistent with their general-life goals, which values family time. This inconsistency served to undermine their perceptions of autonomy over their life in general. Consequently, they did not consider their careers to be "self-determined." This experience resulted in disaffection and a desire to change career to fulfil the need for autonomy in life. These interviewee quotes may reflect traditional stereotypes/breakdown of gender roles in the family home. Whether the quotes reflect intrinsic motivations versus gender stereotyping is a subject for future research.

The two male interviewees also noted that working in the profession did not meet their psychological needs as they referred to a lack of task autonomy. For example, one commented that he did not have "freedom of choice when you are going to work and what you are going to work at." The other commented, "I wanted more engagement, and I'd prefer a lot more control over what I was doing … ." Moreover, this interviewee referred to "questionable ethics … and decisions that I couldn't stand over, so I said I'd have to get out and try something different." The comments suggest that breaches in relatedness, where the interviewee considered that his ethical standards were higher than the professional accounting firm, and this negatively influenced motivation. Under SDT, when there are inconsistencies between the task and individuals' preferences, they will not fully engage with the task (Ryan & Deci, 2000). For both male interviewees, the profession did not meet their needs for relatedness and autonomy, resulting in disaffection and a decision to leave that career.

Two non-professionally qualified interviewees who expressed dissatisfaction with their current role were training to become professional accountants and did not like

[1]Physiological needs are intrinsic, long-term unchanging demands of basic human life, such as safety, health and family relationships. These needs must be met for general well-being and to enable higher-order intrinsic psychological needs, such as competence, relatedness and autonomy, to be met.

the role. For example, one said, "after I'd finished my undergraduate, I believed that I wanted to work in practice, so I went on to work in practice for a year. I didn't quite like it." The two interviewees mentioned that they felt constant "pressure" and made statements reflecting a lack of autonomy over their lives because of expected "overtime" and a requirement to "travel." These are indicators of disaffection with role under SDT. Reference to stress is consistent with Ryan and Deci's (2000) view that persistent action and general well-being require the correct motivation type. Aligned with SDT, the role failed to meet their basic needs for autonomy in both task and general life, and neither interviewee felt that they were part of the "team." Both interviewees expressed no regret at leaving their positions before their contract ended, suggesting non-fulfilment of the need for relatedness. Consistent with SDT, lack of fulfilment of these basic psychological needs negatively affected their attitudes, career intentions and behaviour (Ryan & Deci, 2000). Both resigned and started to look for alternative career options.

Finally, one professionally qualified and four non-professionally qualified interviewees stated that they enrolled for doctoral education because they had "no other alternatives" due to the weak employment environment following the global financial crisis. All four non-professionally qualified interviewees highlighted this motive as the greatest influence in their decision to enrol for doctoral education (Table 4). At the time, all considered that doctoral education was a temporary solution.

Therefore, twelve of the 36 interviewees who enrolled for doctoral education, did not start with that goal. Indeed one stated both dissatisfaction with the current role and no other alternatives. The environment at the time prompted them to consider alternatives to a professional accounting career. Consistent with Ryan and Deci (2000), who conclude that amotivation does not provoke action, further questioning uncovered various other extrinsic and/or intrinsic incentives, that showed that the interviewees anticipated that doctoral education would be of value to them.

5.5.2. Extrinsic motivation

At the outset, all 36 interviewees anticipated extrinsic rewards from doctoral education. Consistent with the survey responses and Beattie and Smith (2012), both professionally qualified (11 out of 13) and non-professionally qualified (19 out of 23) interviewees stated that they anticipated that the qualification would help them to fulfil their goal of an academic career. Interviewees already in an academic post considered having a doctorate necessary for career progression (Table 3, Panel A, "career in academia"). On balance, this was classified as identified regulation as more interviewees identified that the value in doctoral education was that they would become academics. However, we could also have classified this motivation as integrated, depending on the strength of assimilation to the self (Ryan & Deci, 2000). For example, one part-time, professionally qualified student, who already had a lecturing post, when talking about doctoral research and lecturing, stated: "I see them as very much linked … I see a sort of natural fit or progression." This quote is an example of integration – the interviewee is already an academic and sees doctoral education as being fully congruent with what they perceived as the identity they want as an academic.

Several interviewees valued doctoral education and synthesised it as personally important to them. Hence, they felt autonomy over the decision to enrol. Six interviewees commented that university lecturing requires knowledge of research. Thus, a doctorate is

necessary to satisfy their need for competence and legitimacy. For example, one professionally qualified interviewee, who was a full-time university teacher, commented, "we were commencing a masters programme teaching accounting students, so I felt that if I had the PhD qualification, it would probably help." In this instance, the teaching role was becoming more research-focused. Hence the interviewee felt doctoral education would improve competence to continue with the task (Table 3, Panel A, "Inform teaching"). Therefore, changes in the environment generated a situational interest in doctoral education culminating in enrolment (Ryan & Deci, 2000).

Motivations were typically not mentioned in isolation. In most instances (21), the interviewees aligned a career in academia with work-life balance. Thus, enrolling for doctoral education was consistent with their career goal. Still, interviewees also perceived a career in academia would provide more autonomy over general-life goals, particularly the way they want to work. Therefore, doctoral education is fully integrated with their innate idea of "self" (Table 3, Panel A, "Work-life balance").

Related to a career in academia, seven interviewees, who already had teaching posts, said they came under pressure to enrol for doctoral education from an influential external source, their line manager (Table 3, Panel A, "pressure from the university"). This pressure was either seen as a reward or a potential punishment in the absence of action. Three of these interviewees (all professionally qualified) stated that the requirement to do a doctorate was part of their employment contract, "In the interview, it was made clear that registering for a PhD was expected." This interviewee identified that the university recruiters made the nature of the role clear at the outset. In this instance, the incentive was a potential punishment – loss of career – hence is an example of external regulation. However, consistent with SDT, the interviewee went on to say, "I would not get the post now. It is required for transferability, movement and progression. You have to have it." This quote reflects identified regulation – the interviewee attached a high value to the task and aligned it with their goal of a career in academia. In all instances, interviewees with teaching posts attached value to doctoral education. They typically noted that their career prospects would be limited without a doctorate, as captured by the following comment: "I knew in my heart and soul there was no way in the world that I can have an academic career without it … . So, it was entirely career-driven."

The other four interviewees (one professionally qualified, three non-professionally qualified) experiencing pressure were encouraged to enrol after changes to higher-education regulation in the Republic of Ireland meant that some institutions (Institutes of Technology) could achieve university status, similar to the conversion of polytechnics to university status in the UK in the 1990s. Part of qualifying for university status involved improving the research environment and the number of research-active staff. All lecturers received an email explaining that the Institute would provide support, including paying course fees and giving time off to those wishing to pursue doctoral education. These external reward incentives provided an environment more conducive to doctoral education, which led to action (Ryan & Deci, 2000). It signalled that having a doctorate had increased value in that environment.

All three Institute of Technology interviewees felt that the reduced teaching loads would mean that doctoral education would not compromise their work-life goals. Related to the latter point, all three also commented that their personal life was also more conducive to doctoral education than previously. In terms of positive motivations,

all three interviewees identified similar motivations for their enrolment that indicate task value. They expressed interest in research and felt that a doctorate would improve their teaching and careers, provide kudos and legitimacy and help them feel part of the academic community. These views are evidence of self-regulation, consistent with Ryan and Deci (2000, p. 64), who identify that externally motivated action occurs because the action is prompted or valued by "significant others to whom they feel (or would like to feel) connected" (relatedness). This assists regulation.

Though Litalien et al. (2015) identify "status of PhD qualification" as an example of external regulation, consistent with Ryan and Deci (2000), several interviewees internalised this type of motivation. Hence it is classified as introjected and related to ego development. For example, a part-time, professionally qualified doctoral student, who was working in academia before enrolling, felt that having the title would provide legitimacy to their identity as an academic:

> I think to be taken seriously, I know some people are research active and go to conferences and don't have a PhD, but I do think there is this, rightly or wrongly, feeling that you want to have this Dr. in front of your name when you're standing up to present. It just adds a certain amount of gravitas, or it gives you a bit of backing research-wise, a bit of confidence probably.

Consistent with Ryan (1995), who identifies the importance of situational factors on behavioural regulation, this statement shows that over time and exposure to the academic environment, this interviewee increased his/her cognitive capabilities for research and having the Dr. title becomes important to ego. Hence, doctoral education increased in value to the individual, resulting in enrolment. Moreover, a higher proportion of professionally qualified (10 of the 13) relative to the non-professionally qualified interviewees (11 out of 23) said the Dr. title motivated them (Table 3: Panel A). A reason for the higher proportion may be that professional accountants have a certain amount of kudos in society. The Dr. title may substitute for the loss of professional status, though they still have the stigma of being a student for their course duration.

Non-professionally qualified interviewees identified financial motives as more important (Table 3). All six non-professionally qualified interviewees who expressed amotivation sub-types identified that funding was relevant to their decision to enrol. The two interviewees who left the accounting profession due to dissatisfaction with their role claimed that financial incentives were key motivations for pursuing an accounting doctorate. For example, one commented, "When I started, the main motivation was to have a source of income." Six non-professionally qualified interviewees also identified "future earnings" as influential (two overlapped with current funding). The other interviewees did not consider finance important, and three felt they would be worse off by pursuing doctoral education. For example, one non-professionally qualified interviewee stated, "Well, it would be nice to get a salary, but it wasn't the objective. If I wanted to get a salary, I'd go into business." This quote reflects the general view of the professionally qualified interviewees. Indeed, four commented that they were financially worse off following their career change. For example, one professionally qualified interviewee, who left a career in industry, commented,

> Oh Christ, no. … . I took an 80% cut in income to do the PhD … what was I at? … if I was motivated by money, I wouldn't have done it. I don't think any accountant will leave the private sector and go into academia if they are in any way motivated by money.

This quote highlights the importance of psychological motives for pursuing doctoral education, where the need to have autonomy over general life outweighs extrinsic factors.

Despite identifying external incentives for enrolling for doctoral education, most interviewees, professionally qualified and non-professionally qualified, had internalised and integrated the decision to enrol for doctoral education and aligned it as congruent with an academic career and a flexible work-life balance. The greater the extent of regulation, the more likely students are to engage with their research, have greater volitional persistence, experience enhanced well-being, and feel more belonging within accounting academia (Ryan et al., 1997).

5.5.3. Intrinsic motivations

Interviewees referred to five intrinsic motivation sub-types (Table 3: 10–14). Enjoyment of research or interest in the topic was the most common motive for enrolling for doctoral education, cited by 11 of the 13 professionally qualified interviewees. Two identified it as the main motive, with knowledge attainment the most frequent for non-professionally qualified interviewees (14 out of 23). Seven non-professionally qualified interviewees with research experience before they enrolled for doctoral education identified interest in research activity as a motive for continuing with research-based education. For example, one full-time doctoral student commented,

> As part of the masters, I had to do a dissertation. This really was the start of my motivation to do a PhD. I found the research aspect really interesting, and my topic area I really enjoyed, so I thought, 'well ok, I'll apply for the PhD'.

Under SDT, enjoyment and interest are evident when individuals perceive that their decision has been self-determined (Ryan & Deci, 2000). Self-determination typically occurs when individuals' need for competence, relatedness and autonomy are met. Therefore, despite noting various motivations for enrolment, 23 of the 36 interviewees perceived that doctoral education would fulfil their psychological needs.

5.5.4. Motivation bundles

To emphasise the internalised value placed on doctoral education, interviewees typically bundled extrinsic motivations with intrinsic motivations. For example, a non-professionally qualified interviewee, who enrolled full-time after completing a masters degree, stated, "I wouldn't have a better quality of life doing a desk job, and besides that, I am not an office person. I need flexibility [autonomy], I need the research, I need something to drive me [challenge/competence]." This statement captures several psychological influences. The potential to have these psychological needs fulfilled motivated this individual to enrol. Other interviewees integrate "ego" with intrinsic motivations, such as competence and autonomy over their studies. For example, an interviewee commented,

> I'd actually proven myself in terms of exams [ego], but now I wanted to go down a particular avenue of my own choice [autonomy] and see, can you essentially generate some of your own research that you put your stamp on? [autonomy, competence and ego].

In other instances, interviewees bundled interest, competence and relatedness, providing evidence of full self-determination. For example, an interviewee commented, "It's the interaction [relatedness], the stimulus [competence], the debate [competence], the

discussion [relatedness/competence] and also the supporting other people in learning [relatedness/competence]. I love working with students and helping people see possibilities and potentials for the future [relatedness]." This individual internalised doctoral education by integrating it with teaching, the overarching goal for undertaking doctoral education. It enabled more informed discussions with students, fulfilling the psychological need for competence and relatedness. Under SDT, high-quality motivations (intrinsic) will ensure continued engagement if nurtured through the doctoral process (Ryan & Deci, 2000).

Motivation is complex, and 30 of the 36 individuals identified that a bundle of amotivation, extrinsic and intrinsic incentives contributed to their decision to enrol. The other six interviewees referred only to amotivation and extrinsic influences.

6. Conclusions

We framed Ryan and Deci's (2000) SDT taxonomy of human motivation to create an analytical framework customised to an accounting doctoral education context. Our framework provided valuable insights on enrolment motivation. The motivations interviewees identified were typically both extrinsic and intrinsic. However, consistent with SDT, it was clear that most interviewees valued doctoral education and internalised or integrated extrinsic motives to make them consistent with the psychological needs identified by Deci and Ryan (1985) of autonomy, competence and relatedness. For example, most interviewees identified motives that suggest they expect their competence-need to be fulfilled, for example, knowledge attainment and intellectual challenge. Aiming for a "career in academia" might be interpreted as seeking relatedness with academic faculty. However, a more explicit link was evident when the interviewees had already secured a teaching post. These individuals felt they needed to do a PhD to feel competent and belong to the new environment.

Finally, most interviewees identified that they were "interested" in doctoral education. Under SDT, interest and enjoyment of the task is the highest quality motivation sub-type that is most likely to lead to successful outcomes and personal well-being for individuals. In the main, most interviewees identified that their self-directed goal was an academic career. In many instances, interviewees aligned an academic career with work-life balance. This alignment is an example of further regulation as the interviewees had also deemed doctoral education necessary for their physiological well-being. Therefore, most of the interviewees, some of whom indicated extrinsic type motivations for enrolling, perceived their decision to enrol for doctoral education to be self-determined.

Given the interest in attracting professionally qualified accountants to enrol for doctoral education, we analysed the findings according to professional-qualification status. In the main, the motivations for enrolling for doctoral education of professionally qualified and non-professionally qualified interviewees were similar. They included expectations of a "career in academia", "enjoyment of research/interest in topic", "status of PhD qualification", and "work-life balance." In terms of differences, professionally qualified doctoral students identified "dissatisfaction with their current role", "status of the PhD qualification", and "interest in the topic" as more important relative to non-professionally qualified doctoral students. Those dissatisfied with their professional career anticipated that an academic career would fulfil the key motivational deficit

experienced in their professional career – lack of autonomy. Non-professionally qualified doctoral students were more incentivised by "knowledge attainment" and "financial incentives." Finally, two of the new motivations identified in this study, "pressure from the university" and "inform teaching" were unique to students who had already secured a lecturing role before enrolment.

Professional accounting is a highly structured career involving timesheets, strict deadlines and following rules (Ladva & Andrew, 2014). The findings from this study suggest that an academic career with more autonomy over time is an attractive option. All seven non-professionally qualified interviewees who had experienced research during their masters stated that this experience was a key stimulant in their decision to consider doctoral education. Currently, many undergraduate accounting degrees focus on technical content. If accounting departments wish to increase the pool of doctoral accounting graduates, then this finding provides a case for research-led and research-informed teaching across accounting modules and the inclusion of research modules, so that degrees are not just focused on producing professional accountants, but also prepare students for postgraduate education.

This study has limitations. We acknowledge our small sample size, which is not uncommon for interview-based research. Although the findings are transferable to countries following a traditional doctoral education system, particularly countries that use professionally qualified accountants to service technical accounting modules, further studies in other countries could validate the findings. The five additional motivations uncovered were self-reported through semi-structured interviews. Using a single methodology to identify new motivations, particularly when they are self-reported, increases common-method variance (i.e. spurious variance attributable to the measurement method rather than the constructs the measures are assumed to represent) (Podsakoff et al., 2003). Common-method variance will be reduced when other studies, such as quantitative survey type studies, and studies in other countries, validate the additional motivations. Also, participation in the study was voluntary and focused on individuals who had already decided to enrol. Voluntary participation may have inadvertently focused on the most motivated cohort, though the sample included five doctoral students who had withdrawn from doctoral education.

Finally, we used SDT to provide insights on the motivations of those who had already enrolled for doctoral education to formally identify their attraction to the role. Using the SDT framework enabled a more nuanced and informative interpretation of motivations as it emphasised the link between motivation and psychological needs. For example, prior studies identified that the "doctor title" (ego) motivated students to enrol for doctoral education. This study identified that ego was not a key driver of action. It contributed but was secondary to other motivations. SDT enabled us to evaluate why the "Dr. title" was deemed important to some interviewees. Under SDT, when a task is aligned to "ego", it is evidence of regulation. Identifying that the Dr. title would increase interviewees' perceived reputation had attached value to the task, which they now believed was important for their well-being. All interviewees identified several motivations, most of which were regulated. Use of the SDT analytical framework enabled the data to be framed and coded systematically according to motivation quality whilst also enabling the identification and classification of new types of motivation. For example, two of SDT's core tenets, the need for relatedness and autonomy, had not been explicitly

mentioned in the literature as key attractions of doctoral education. Further studies could examine how motivation changes throughout the doctoral journey.

However, the systematic classification of motivations into labelled motivation types/sub-types according to regulatory style is also a weakness as classifications imply boundaries between motivation types/sub-types that are not there. Motivations exist on a continuum from non-self-determined/controlled to self-determined/full-autonomy. We classified doctoral motivation types/sub-types into the six regulatory styles that reflect increasing internalisation levels (Ryan & Deci, 2000). The allocation of motivation types/sub-types to these regulatory styles is subjective. Nonetheless, despite some subjectivity in individual motivation classification, SDT is clear: the more self-determined the motivation, the more likely doctoral students will sustain behaviour and experience well-being from it (Ryan & Deci, 2000).

Finally, Van den Broeck et al. (2016) conduct a meta-analysis of 99 prior studies, largely finding support for SDT. Their paper concludes with recommendations for future SDT research, including cautions on the measures and methods used. A further caution noted in our study is that though the analytical framework proposed in this paper identifies 14 motivations, it does not rank them. Researchers who use the framework in future studies must ensure that they also seek to determine the most important motivation. This is likely to be the greatest influence on the decision to enrol.

We hope that insights from this research will assist higher education institutions and accounting departments in delivering doctoral programmes customised to the disciplinary research context. In particular, and consistent with studies on the importance of "topic" (Raineri, 2015), this study found that doctoral enrolees, particularly professional accountants, are motivated by autonomy. Therefore, course design and supervisor training should emphasise the importance of enabling students to feel autonomy over their research. In addition, our findings suggest that, if not managed carefully, pressures from the dual role of teaching and research may crowd out feelings of autonomy and relatedness when doctoral students secure faculty posts.

Interviewees also identified status as important, particularly to professionally qualified accounting doctoral students. Therefore, we recommend that doctoral programmes refer to doctoral students as "doctoral researchers". Such terminology may reduce the stigma attached to being referred to as a "student", which may be off-putting for potential enrolees who are "ego" driven. Similarly, doctoral programmes might consider a "title", such as masters, after one year in the programme.

We echo calls in prior studies for closer engagement between academics and practitioners (Beattie & Smith, 2012). Our study found that the main motivation for most accounting doctoral enrolees, whether professionally qualified or non-professionally qualified, is seeking a career in academia, as they want to teach. Consistent with this, Plumlee and Reckers (2014) report a potential link between prior teaching experience and accounting doctoral enrolment. Our study also found that previous research experience motivates doctoral enrolment. Therefore, we urge universities and professional bodies to co-operate to create and fund initiatives that enable potential applicants to experience both. One suggestion is to provide one-year master's posts that enable students to experience light teaching duties, such as tutorials, and support them to undertake preliminary research on a research topic, to masters level, of interest to the student and the profession. Such an initiative is most likely to be successful if the year is treated as

a secondment from the professional firm but is partially funded by the university and the professional body. Universities and the profession should co-operate to identify research projects suitable for doctoral education. Finally, professional accounting bodies should promote an academic career as part of their professional development/career planning.

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ORCID

Anne Marie Ward http://orcid.org/0000-0002-6756-616X
Niamh M. Brennan http://orcid.org/0000-0003-1098-6937
Judith Wylie http://orcid.org/0000-0001-5951-5330

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