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The intention–behaviour link of higher education graduates

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## INTRODUCTION

Previous research on entrepreneurial intentions has focused on testing entrepreneurial intention and personal-level variables (see Liñán and Fayolle, 2015). The tendency has been to go beyond the original theory of planned behaviour model (Ajzen, 1991) and provide new insights into the mental processes leading to the formation of entrepreneurial intentions. It has been also suggested that new scales be proposed for entrepreneurial intention models (Fayolle and Liñán, 2013). There is still a research gap in longitudinal settings (e.g., Matlay and Carey, 2007; Fayolle and Liñán, 2013). Also the link between intentions and actual start up remains relatively unexplored (Sequeira et al., 2007; Carsrud and Brännback, 2011).

In this study entrepreneurial intentions refer to the commitment to start a new business (Krueger and Carsrud, 1993) by a graduate, either directly after graduation or later. Some studies suggest that higher education reduces the likelihood of entrepreneurship (Kangasharju and Pekkala, 2002; Henley, 2005; Pihkala, 2008; Nabi et al., 2010; Joensuu et al., 2013) while others suggest the opposite (Blanchflower and Meyer, 1994; Ertuna and Gurel, 2011; Lanero et al., 2011; Zhang et al., 2014). Reasonable arguments exist in favour of both views. On one hand, participating in higher education gives a person a resource advantage that may enable a successful career in entrepreneurship; on the other hand, with a higher education diploma a person is a more desirable employee and may

well find salaried employment a more attractive alternative than entrepreneurship. Also, it is a fact that most higher education programmes do not aim to promote entrepreneurial behaviour in the first place (e.g., Aronsson, 2004).

Fayolle and Liñán (2013) reviewed recent literature on entrepreneurial intentions and classified 220 papers in published 2006–12 into five categories. The first category consists of studies on core model, methodological and theoretical issues. The second and largest category includes studies on the influence of personal-level variables on entrepreneurial intentions. Impact of gender has received a lot of attention, as has the impact of role models. The third group consists of papers on entrepreneurship education and intentions, with a main focus on impacts of entrepreneurship education on entrepreneurial intentions on various levels, ranging from comprehensive to higher education. The fourth group includes papers focusing on context and institutions; the papers relate formation of entrepreneurial intentions to specific environments, for example, national cultures. The fifth group consists of papers focusing on the entrepreneurial process and intention–behaviour link. This group remains the smallest as longitudinal analyses are inherently challenging; it is in this group that new studies are most needed (Sequeira et al., 2007; Carsrud and Brännback, 2011; Fayolle and Liñán, 2013), and to which this chapter aims to contribute.

Liñán and Fayolle (2015) have continued with the systematization and categorization of studies on entrepreneurial intentions. In addition to previous categories, they identified in entrepreneurial intention studies new research areas related to sustainable entrepreneurship and social entrepreneurship.

The chapter examines the realization of students' entrepreneurial intentions in entrepreneurial behaviour after graduation. We apply Ajzen's (1991) theory of planned behaviour (TPB) to entrepreneurial intentions of higher education students and test their relevance as antecedents of actual behaviours after graduation. The students' intentions and their antecedents have been measured during their studies and then a follow-up study has been conducted a few years after graduation. Hence, this study offers a longitudinal follow-up for entrepreneurial intention–behaviour link of higher education students. The

focus is on the formation of behaviour rather than intentions. The specific objectives are: (1) to analyse the link between entrepreneurial intentions, their antecedents and entrepreneurial behaviour (i.e., start-up behaviour) after graduation and (2) to analyse the role of gender and entrepreneurial role models in entrepreneurial behaviour.

## LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

### **Entrepreneurial Intentions**

In studying intentions we adopt an existing intention model, namely Ajzen's (1991) TPB, which has become the dominating model in empirical literature on entrepreneurial intentions (Schlaegel and Koenig, 2014). The TPB suggests that intention is the immediate antecedent of behaviour and, thus, the stronger the intention to engage in a specific behaviour, the more likely its actual performance should be (Ajzen, 1991). However, it has been shown that mere goal intention accounts for no more than 28 per cent of variance in goal-directed behaviour (Sheeran, 2002), and psychological mechanisms (commitment, implementation intention) have a major role in the process (Adam and Fayolle, 2015). The core of the TPB is the idea that intentions have three conceptually independent determinants, namely attitude towards the behaviour, subjective norm and perceived behavioural control (Ajzen, 1991):

*Attitude towards the behaviour* refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question. The more positive an individual's perception regarding the outcome of starting a business is (see, e.g., Shapero and Sokol, 1982; Autio et al., 1997; Krueger et al., 2000; Segal et al., 2005; Van Gelderen and Jansen, 2006; Pruett et al., 2009) the more favourable their attitude towards that behaviour and, consequently, the stronger the individual's intention to go ahead and start a business.

*Subjective norm* refers to the perceived social pressure to perform or not to perform a behaviour, that is, starting a business. Subjective norm is based on beliefs concerning whether important referent individuals or groups approve or disapprove of an individual establishing a business, and to what extent this approval or disapproval matters to the individual (Ajzen, 1991, p. 195). Generally speaking, the more the opinion of a particular

referent group or individual matters to the individual, and the more encouraging of enterprising activity the individual believes them to be, the stronger the individual's intention to start a business. Cialdini and Trost (1998) suggested that social norms have the greatest impact when conditions are uncertain. Pruett et al. (2009) operationalized social norms as family experience and support in addition to knowledge of others who had started businesses.

*Perceived behavioural control* (PBC) refers to the perceived ease or difficulty of performing the behaviour. It is based on beliefs regarding the presence or absence of requisite resources and opportunities for performing a given behaviour (see Bandura et al., 1980; Swan et al., 2007). In general, the greater this perceived behavioural control, the stronger the individual's intention to start up in business. According to Ajzen (1991) this is most compatible with Bandura et al.'s (1980) concept of perceived self-efficacy. In entrepreneurial intention literature, perceived behavioural control and entrepreneurial self-efficacy have been used almost interchangeably (Schlaegel and Koenig, 2014).

According to Ajzen and Fishbein (2004), the three theoretical antecedents should be sufficient to predict intentions, but only one or two may be necessary in any given application. In other words, the theory of planned behaviour posits that the relative importance of the three factors can vary from one context to another. In most of the studies the best predictor of intentions has been perceived behavioural control (Shapiro and Sokol, 1982; Boyd and Vozikis, 1994; Krueger et al., 2000; Autio et al., 2001; Melin, 2001; Kristiansen and Indarti, 2004; Liñán, 2004; Henley, 2005; Segal et al., 2005; Urban, 2006; Sequeira et al., 2007; Wilson et al., 2007; Prodan and Drnovsek, 2010; Chen and He, 2011; Drost and McGuire, 2011; Finisterra do Paco et al., 2011; Lee et al., 2011; Pihie and Bagheri, 2011). The second most common predictor has been attitudes (Zampetakis et al., 2009; Moi et al., 2011) followed by subjective norm (Aizzat et al., 2009; Pihie et al., 2009; Engle et al., 2010; Siu and Lo, 2013). Kautonen et al. (2013) found that attitude, subjective norm and perceived behavioural control jointly explain 59 per cent of the variation in intention. In a recent meta-analysis, perceived behavioural

control had a significantly larger effect than either attitude or subjective norm (Schlaegel and Koenig, 2014).

### **The Intention–Behaviour Relationship**

TPB suggests that intention is the immediate antecedent of behaviour (Ajzen, 1991), and even a 0.9–0.96 intention–behaviour correlation has been reported (Ajzen et al., 2009). However, antecedents of intentions can also have a direct effect on actual behaviours. Ingram et al. (2000) found that perceived behavioural control has a direct effect on start-up behaviours (see also Jung et al., 2001; Sequeira et al., 2007; Townsend et al., 2010). Kautonen et al. (2013) also found that perceived behavioural control contributes to the prediction of behaviour over and above its mediated influence via intention. In fact, Ajzen (1991) suggests PBC has a double role in the TPB: to the extent that perceived behavioural control is realistic, that is, the person’s perceptions are accurate, and that perceived behavioural control also predicts the actual behaviour instead of full mediation via intentions. In Ajzen’s model, PBC may have a direct effect on behaviour, but attitudes and subjective norms affect behaviour via intention. Kolvereid and Isaksen (2006) did not, however, find a correlation between perceived behavioural control and start-up.

Kautonen et al. (2015) also argue that the intention to start a business is not necessarily the starting point of the entrepreneurial process. Thus, an explicitly stated intention is not required as an antecedent of behaviour in all cases. Furthermore, as the antecedents of intentions are in themselves conceptually independent of intentions, there is no reason to assume that the antecedents cease to exist for individuals who have proceeded beyond intentions to actual behaviours.

Based on previous research, we suggest following hypotheses:

*H1: Entrepreneurial intention measured during studies has a direct and positive link on entrepreneurial behaviour after graduation.*

*H2: Perceived behavioural control measured during studies has a direct and positive effect on entrepreneurial behaviour after graduation.*

*H3: Attitudes towards entrepreneurship and subjective norm have no direct effect on behaviour.*

### **The Role of Gender and Entrepreneurial Role Models in Entrepreneurial Intentions**

In previous entrepreneurial intention studies, gender has received the greatest attention followed by roles models (Fayolle and Liñán, 2013). Both existing enterprise statistics and research on intentions (e.g., Crant, 1996; Wilson et al., 2004; Wang and Wong, 2004; Shay and Terjesen, 2005; Sequeira et al., 2007; Liñán and Chen, 2009; cf. Pruett et al., 2009; Yordanova and Tarrazon, 2010; Lee et al., 2011; Zhang et al., 2014) have shown that women have less desire to start new businesses than men. A recent European Commission (2012) study on alumni of entrepreneurship programmes found that female alumni score lower on entrepreneurial self-efficacy than their male counterparts, but higher than the control group (cf. Wilson et al., 2007; Kickul et al., 2008). In Zhao et al.'s (2005) study, gender was not related to entrepreneurial self-efficacy but was directly related to entrepreneurial intentions. In their study women also had lower entrepreneurial intentions than men. Yordanova and Tarrazon (2010) found that gender effect on entrepreneurial intentions is fully mediated by perceived behavioural control and partially mediated by perceived subjective norms and attitudes. Finally, Joensuu et al. (2013) demonstrated in a longitudinal study of higher education students that not only do women have lower intentions to begin with but also that their intentions decrease more during their studies. Hence, gender is included in our theoretical model as a factor influencing entrepreneurial intentions and actual start-up behaviours.

Role models have been found to be a significant factor in entrepreneurial intentions (Kolvereid, 1996; Van Auken et al., 2006; Bosma et al., 2012). In Uygun and Kasimoglu's (2013) study, entrepreneurs who started their enterprises in sectors where their role models were already active, role models first affected self-efficacy, and then self-efficacy caused a positive effect on perceived feasibility. In cases where entrepreneurs chose different sectors than their role models, Uygun and Kasimoglu argued that role model had a direct influence on perceived desirability and self-efficacy. Engle et al. (2011) examined the relative social influence of family, friends and role

models on entrepreneurial intent in 14 countries. They found that each of the individual social groups is a significant predictor of entrepreneurial intent.

Despite the fact that gender and entrepreneurial role models have been extensively studied in previous research, we wanted to test their effect in a longitudinal setting and suggest the following hypotheses:

*H4: Gender (male) has a positive effect on entrepreneurial behaviour after graduation.*

*H5: Entrepreneurial role models have positive effect on entrepreneurial behaviour after graduation.*

## RESEARCH METHODOLOGY

### **Data Collection Process**

The instrument used in the study has been developed and piloted in Finland (see Joensuu et al., 2014). The scales are largely based on Kolvereid (1996). However, in some parts of the instrument (e.g., attitudes), new scales were proposed and the validity tested using national data during 2008–09.

The data was collected in two waves: the first wave during studies and the second wave after graduation. Longitudinal data gathering is demanding and much data is lost in the process. During their studies the students answered the questionnaire each year from the first until the fourth study year. However, we could not find a measurement from all years for the same individuals who answered the questionnaire after graduation. Therefore, the latest available intention measurement for each student from study time was accepted in the analysis. Data in the first wave was gathered during the years 2008–12. The average age of the respondents varied from 21 to 23. The percentage of female students varied from 56 per cent to 60 per cent. The number of respondents varied from 616 respondents (year 2008) to 5036 (year 2011) respondents.

The second wave for this study was collected by sending a self-administered questionnaire in fall 2013 for the alumni of Seinäjoki University of Applied Sciences who

had graduated 1.5–3.5 years ago at Bachelor level. Altogether, 1045 responses were received (response rate 46 per cent). For these respondents, a measurement result for entrepreneurial intentions during studies could be identified for 282 students: 100 students had a measurement from the fourth year, 106 students from the third year, nine students from the second year and 67 students from the first year.

Ten of the students were already starting a business during their studies (five men and five women). Three of them were still entrepreneurs after graduation, and two were part-time entrepreneurs. All students who were starting their own business during their studies were left out of the analysis, leaving a sample of 272 graduated students in the final analysis.

There were considerably more women (201) than men (71) in the data. Eighteen per cent had a mother with a professional background as an entrepreneur and 36 per cent had a father with a professional background as an entrepreneur. The majority of respondents were working as an employee in some organization (79.8 per cent); 2.2 per cent were working as an entrepreneur or freelancer; 7.4 per cent were unemployed; 5.5 per cent were studying full-time; and 4.4 per cent were on their maternity or parental leave.

Most of the responses were from students who had graduated from Social Services, Health and Sports (40 per cent) and Social Sciences, Business and Administration (17 per cent). Other study fields were Technology, Communications and Transport (13 per cent), Culture (13 per cent), Natural Sciences (4 per cent), Natural Sources and the Environment (6 per cent) and Tourism, Catering and Domestic Services (6 per cent).

Altogether six respondents had become entrepreneurs after graduation. In addition, 11 respondents were part-time entrepreneurs, that is, had a business in addition to their main occupation.

### **Variables**

The dependent variable is actual start-up behaviour after graduation. Because of the small number of entrepreneurs, two groups were combined: in the analysis there were altogether



17 graduates who were either full-time or part-time entrepreneurs (12 men and five females). Behaviour was a dichotomous variable, no coded as 0 and yes coded as 1.

Independent variables are entrepreneurial intention, subjective norm, perceived behavioural control, attitudes, gender and entrepreneurial role models. An index of entrepreneurial intention was created by averaging six items. The variable demonstrates good reliability (Cronbach's alpha = 0.85, min 1.0, max 6.7, mean 3.4, s.d. 1.1).

Subjective norm was measured with a procedure suggested by Ajzen (1991). Originally the support from people close to the individual (belief items) was measured with three items (seven-point scale from 1 to 7) and importance of support was measured by three items (seven-point scale from 1 to 7) referring to each of the aforementioned belief questions (three items). For statistical analysis the motivation to comply items were transformed to a -3 to +3 scale. The belief-based items (coded as ranging from 1 to 7) and the corresponding motivation to comply items (coded as ranging from -3 to +3) were multiplied, and then added to create an index of subjective norm (ranging from -63 to +63). The variable demonstrates acceptable reliability (Cronbach's alpha = 0.71, min -45.0, max 51.0, mean -1.5, s.d. 16.0).

An index of perceived behavioural control was created by averaging five item scores. The variable demonstrates acceptable reliability (Cronbach's alpha = 0.74, min 1.0, max 6.4, mean 4.0, s.d. 1.0).

An index of entrepreneurial attitude was created by averaging nine item scores. The variable demonstrates acceptable reliability (Cronbach's alpha = 0.76, min 2.4, max 7.0, mean 4.9, s.d. 0.8).

Gender was coded 0 for female students and 1 for male students. Entrepreneurial role models were measured with the entrepreneurship of mother or father of the respondent. Mother's and father's professional background is coded 0 for 'not an entrepreneur' and 1 for 'entrepreneur'.

All the variables and their items (Table 8A.1) and correlations among studied variables (Table 8A.2) are presented in the Appendix at the end of the chapter.

### **Testing Procedures**

As a first step, we compared respondents with high and low intentions scores. We classified an individual as having a high level of intention when he or she scored over 4 and a low level of intention when the score was 4 or below (scale 1–7).

In the second step the data were analysed using logistic regression analysis with SPSS 21. Logistic regression analysis was used to test a model in which intentions measured during studies explain actual start-up behaviour after graduation. Logistic regression is suited for situations where the dependent variable is dichotomous. In logistic regression, regression coefficients can be used to estimate odds ratios for each of the independent variables in the model. In our model, independent variables were entrepreneurial intentions, attitudes, subjective norm, perceived behavioural control, gender and entrepreneurial role models. Gender, father's professional background as an entrepreneur and mother's professional background as an entrepreneur were used as categorical variables. Categorical variables were used as indicators: contrasts indicate the presence or absence of category membership. The reference category was represented in the contrast matrix as a row of zeros.

## **RESULTS**

There were 200 students with a low intention score (score 4 or below) and 72 with a high intention score (score over 4). Of the graduates who had a high intention score during studies, 13 per cent had become entrepreneurs after graduation. Only 4 per cent of the graduates with a low intention score during studies had become entrepreneurs. The difference between groups is statistically significant ( $\chi^2$  6.528, \*\*  $p < 0.01$ ). Table 8.1 presents the cross-tabulation of these groups.

Table 1. Level of intention during studies and entrepreneurial behavior after graduation.

Level of intention during studies	Not an entrepreneur after graduation	Entrepreneur after graduation	Together
Low	192 (96.0 %)	8 (4.0 %)	200 (100 %)
High	63 (87.5 %)	9 (12.5 %)	72 (100 %)
Together	255 (93.8 %)	17 (6.3 %)	272 (100 %)

Chi-square 6.528,  $p=0.01^{**}$

In the first regression model we included only intentions measured during studies. Intentions explain start-up behaviour statistically significantly (Exp (B) 2.261,  $*** p < 0.001$ ). H1 is thus supported. The model fits the data well (Hosmer-Lemeshow non-significant  $\chi^2$  (10.708), omnibus test  $\chi^2$  13.429,  $*** p < 0.001$ , Nagelkerke  $R^2$  0.13). However, the model is not able to classify the students who became entrepreneurs correctly. This problem is common in situations where the outcome event is rare, as in this case. The model classifies the respondents who did not become entrepreneurs 100 per cent correctly.

In a second model (Table 8.2) we included intentions and also subjective norm, attitudes, perceived behavioural control measured during studies and gender and entrepreneurial role models as independent variables. In this model only perceived behavioural control and gender had statistical value in predicting the start-up behaviour. Perceived behavioural control significantly explains the start-up behaviour (Exp (B) 2.405,  $* p < 0.05$ ), and so does gender (Exp (B) 6.605,  $** p < 0.01$ ). H2 is supported. Also H4 is supported: gender (male) has a positive effect on entrepreneurial behaviour. On the other hand, H5 is rejected, that is, effect of role models is non-existent. It is interesting that the role of intentions in explaining the behaviour decreases when PBC is included in the

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model. This suggests that the belief in one's own capabilities as an entrepreneur is far more important than the mere intention to become an entrepreneur. Attitude toward entrepreneurship is not significant in explaining the entrepreneurial behaviour, nor is subjective norm. Thus, H3 is supported. The fit measures of the model are good (omnibus test  $\chi^2$  30.708, \*\*\*  $p < 0.001$ , Nagelkerke  $R^2$  0.29, Hosmer-Lemeshow test  $\chi^2$  2.893, sig. 0.941). The model classifies 94.3 per cent of cases correctly.

Table 2. Logistic regression, variables in Equation. Source: Author

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Entrepreneurial intentions	.345	.348	.984	1	.321	1.412
Perceived behavioral control	.877	.409	4.594	1	<b>.032*</b>	2.405
Attitudes	-.272	.516	.277	1	.598	.762
Subjective norm	-.019	.016	1.402	1	.236	.981
Gender	1.888	.615	9.416	1	<b>.002**</b>	6.605
Mother as an entrepreneur	-1.167	.891	1.715	1	.190	.311
Father as an entrepreneur	.492	.615	.642	1	.423	1.636
Constant	-7.379	2.155	11.724	1	.001	.001

## DISCUSSION

### Implications

Our results show that entrepreneurial intentions measured during studies do explain higher education students' entrepreneurial behaviour after graduation, and thus support the existence of entrepreneurial intention–behaviour linkage. The result also suggests that measuring change in entrepreneurial intentions does have value in gauging the effectiveness of, for example, entrepreneurship education or other pro-entrepreneurship interventions. However, in line with previous research findings (Ingram et al., 2000; Kautonen et al., 2013), we found no direct effect on behaviour from attitudes and subjective norm. This argues that while promoting positive attitudes towards entrepreneurship in both students and the general population may have other positive effects, it can do little to increase graduate start-up behaviour.

In our results the role of perceived behavioural control in actual entrepreneurial behaviour is, however, more important than that of actual intentions. This suggests that even the students who, during studies, have no intention to start a business, may do so if they feel confident of their abilities and a suitable opportunity occurs. All in all the significance of PBC for behaviour highlights the importance of students' perceptions of their own capabilities. Entrepreneurship educators should, in designing their curricula and methods, consider whether they are offering their students sufficient opportunities to gain

confidence in their own abilities. Possibly the objective can be served by pedagogies emphasizing experimentation and experiential learning (i.e., active and real-world pedagogies, e.g., Fayolle, 2013).

It is interesting that few students with a high intention level during studies had become entrepreneurs after graduation. It may be that young people have rosy ideas about entrepreneurship when they enter higher education institutions but after graduation, they learn more what successful creation of new businesses actually requires. Once the graduates have more concrete ideas about the requirements related to an entrepreneurial career, their perceptions about their own abilities to succeed in entrepreneurial endeavour (i.e., entrepreneurial self-esteem) might become more realistic. Another possible explanation could be the economic situation in Finland, which has been developing negatively during the last years. It might be that the overall climate for starting up a new business is pessimistic.

Adam and Fayolle (2015) also suggest that implementation intention and commitment may have a role in entrepreneurial process. Implementation intention may moderate the intention–behaviour link and commitment is linked both to intention and action. This can explain why some students with high intention scores become entrepreneurs and others do not.

Gender has significant value in predicting entrepreneurial career choice: men are far more likely to become entrepreneurs than women. Gender has an effect not only on development of intentions (Joensuu et al., 2013) but also on behaviour. Yet entrepreneurship programmes can have an impact on women's entrepreneurial potential (e.g., European Commission, 2012). One possible conclusion is that insufficient attention is paid in higher education to possible gender differences in learning styles. Some earlier studies have found differences in learning style between men and women (Gallos, 1993; Kaenzig et al., 2007), suggesting that women are not as happy with group work or active-based pedagogies as men are. Entrepreneurship educators should also consider whether they unknowingly bias their presentation of entrepreneurship, for example, by the use of male case examples.

Although students' entrepreneurial intentions have been widely studied, follow-up studies extending to actualization of individual entrepreneurial intentions are rare. Overall, the results highlight the importance of both developing individual perspectives in entrepreneurship education: different methods and objectives should be designed for different groups. Students can be categorized into groups to be protected, cultivated and developed. The group to protect is the students starting a business during studies; they should be offered skills and knowledge related to an entrepreneurial career. The group to be cultivated is the students with high intention scores; they should be offered programmes that enhance their belief in their ability to succeed as entrepreneurs. The group to be developed is the students with low intention scores; they require more attitudinally focused entrepreneurship education. Also, gender effects should be considered when designing entrepreneurship education.

## CONCLUSION

### **Limitations and Further Research**

We hope to have added richness to the ongoing discussion among academics and educators alike regarding entrepreneurial intentions and to have added a new perspective in examining the role of antecedents in actual start-up activities. Our study has, however, some limitations that should be addressed in future research.

We have taken the liberty of examining behaviour from a theoretical perspective intended for explaining intentions. We acknowledge that this is extending Ajzen's theory beyond its aims. Nevertheless, as the rationale for studying formation of entrepreneurial intentions ultimately relates to promotion of actual entrepreneurial behaviour, testing the role of the antecedents in existing data is a reasonable step. The theoretical grounding in antecedents of intentions can, however, be considered a limitation in our study.

From an empirical standpoint, our sample was limited to higher education students in one country. This limits the scope of generalization, as different environments lead not only to different levels of entrepreneurial intentions but also differences in realization of intentions (see e.g., Grilo and Irigoyen, 2006). The instrument has also been developed

in Finland, which could conceivably have an effect on the results. Another limitation of the study is that we have been unable, due to the limited number of graduates engaged in entrepreneurship, to examine the differences between study years. It would be highly useful, for example, to establish whether intentions formed closer to graduation are more likely to be realized. Also, with a larger sample size, variances in realization of intentions in different kinds of entrepreneurship could be distinguished and measured, for example, part-time and full-time entrepreneurship, solo entrepreneurship and growth entrepreneurship (see also Kautonen et al., 2013). It is also possible, that because the data from the first wave has been collected from individuals in different phases of their education, this might somehow bias the results. Some students had a first wave measurement from the first study year and others from the last study year. Older students may have more work experience, which can affect the level of entrepreneurial intention.

A theoretically important issue to be investigated empirically is the permanence of antecedents of entrepreneurial intentions, in particular PBC. Do students' perceptions of their capabilities change after graduation – or after actually starting a business? Additionally, Fayolle (2013; see also Fayolle and Liñán, 2014) has suggested that implementation intention theory and the concept of commitment be included when analysing the link between intentions and behaviour.

#### NOTE

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