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Citation for final published version:

Henley, Andrew , Contreras, Francoise, Espinosa, Juan C and Barbosa, David Entrepreneurial intentions of Colombian business students: planned behaviour, leadership skills and social capital. International Journal of Entrepreneurial Behaviour and Research 10.1108/IJEBR-01-2017-0031

Publishers page: <https://doi.org/10.1108/IJEBR-01-2017-0031>

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**Entrepreneurial Intentions of Colombian business students: Planned behaviour,  
leadership skills and social capital**

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**International Journal of Entrepreneurial Behaviour and Research**

(first published on-line 27 July 2017)

(<http://www.emeraldinsight.com/doi/full/10.1108/IJEBR-01-2017-0031>)

Final author post-print version

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## **Abstract**

**Purpose:** This paper reconceptualizes the Theory of Planned Behaviour (TPB) in the light of social cognitive theory to investigate the role of social capital, and specifically leadership skill as a social capital generating influence in formation of entrepreneurial intentions.

**Methodology:** A new conceptualization of TPB is proposed to allow the impact of bonding and bridging cognitive social capital to be mediated by TPB constructs of perceived desirability and feasibility of entrepreneurship. Hypotheses are developed related to leadership skills, family background and social norms as external and internal indicators of social capital, and tested on primary data from 322 student respondents in a Colombian business school.

**Findings:** Leadership skills, indicative of bridging cognitive social capital, are found to be strongly and significantly associated with entrepreneurial intentions through the mediating role of the core TPB constructs. Evidence for the role of bonding social capital through measures of the social acceptability of entrepreneurship and family background is mixed, and in the case of family background no indirect association with intentions is found.

**Research limitations/implications:** Although the Latin American context would suggest significant population variation in personal and background resource, there is relatively little variation across this sample, particularly in terms of family background. Thus rates of graduate entrepreneurship may relate more closely to constraints acting on entry into higher education than on other background characteristics, and therefore that future work in similar contexts ought to be conducted across a wider socio-economic sample.

**Practical implications:** Opportunities to develop and enhance student perception of leadership ability through either education or experience might improve levels of graduate entrepreneurship, alongside traditional activities to raise self-efficacy and perceived salience of entrepreneurship.

**Originality/value:** Student leadership skills have rarely been addressed in the context of entrepreneurship development. This paper highlights the relevance of this in a developing economy context.

**Key words:** Leadership skills, Social capital, Entrepreneurial intention, Latin America.

**Acknowledgement:** This research was partly supported with travel funding from the British Council.

## **Introduction**

Entrepreneurial intention is a process antecedent to entrepreneurial action that involves recognizing opportunities, looking for information, finding resources and establishing business strategies (Boyd and Vozikis, 1994; Krueger and Carsrud, 1993; Lee et al., 2011). There are various models that have tried to explain entrepreneurial intention, but in theory-driven work one of the most widely used has been the Theory of Planned Behaviour (TPB) (Ajzen, 1991, 2005). This model focuses heavily on individual normative beliefs and attitudes. Empirical evidence has shown that this model in many circumstances constitutes an adequate framework for the prediction of human behaviour (Ajzen and Cote, 2008) and can be successfully applied to understanding and explaining entrepreneurial intentions (Angriawan et al. 2012; Ajzen, 2005; Gird and Bagraim, 2008; Engle et al., 2010; Iakovleva et al., 2011; Nabi et al., 2010; Otuya et al., 2013; Souitaris et al., 2007). This paper proposes a reconceptualization of TPB in which cognitive social capital (Bandura, 1989; Davidsson and Honig, 2003; Liñán and Santos, 2007) is equated to and incorporates the TPB construct of social norms, that is the perceived normative social pressure to undertake a particular action. Cognitive social theory holds that an individual's behaviour, in this case entrepreneurial intention, is informed not only through internal self-generated means, but also externally through observation of and engagement with others in a social context (Bandura, 1988; 1989), and has found expression in models of entrepreneurial intention through the concept of self-efficacy (Krueger et al., 2000). However, this also provides an expanded framework through which not only internally perceived social norms but also externally generated social capital bonding and bridging, through family background and perceived leadership ability, might influence entrepreneurial behaviour.

Leadership can be understood in various ways; as a trait, as a behavioural practice, or as skill that can be acquired and developed through experience and learning (Fayolle, 2005; Kuratko, 2005). In this study it is the third of these that is addressed, not only because this attracts considerable support in research literature (Mumford et al., 2000; Mumford et al., 2007), but also because perceived leadership skill may connect to the construct of bridging social capital. Entrepreneurship programs can improve leadership skill through impact on personal and functional competencies (Bagheri and Lope, 2013). Personal competencies include cognitive and interpersonal skills, whereas functional competencies relate to performance. These skills are by definition deployed in a social context, through which aspiring entrepreneurs use leadership skills to marshal resources, and bridge relationships with other actors (suppliers, customers, entrepreneurial networks) to support their entrepreneurial objectives.

Some research has linked entrepreneurial intention with other individual characteristics (Brandstätter, 2011; Solesvik et al., 2014), and specifically to various aspects of leadership (Vecchio, 2003). Leadership skill has been associated with attributes such as individual motivation, uncertainty tolerance, and ability to take risk (Kansikas et al., 2012; Madrigal et al., 2012; Thompson, 1999). However, conceptualization of leadership skill as a driver of entrepreneurial intention has not previously been undertaken within the TPB framework. In the Latin American context, characterized by middle income countries with a strong emphasis on family-owned businesses (López-Fernández et al, 2016), self-perception of leadership skill, acquired in reference to externally observed behaviours of older family members, may connect closely with the formation of social norms and capital for young people.

The TPB is therefore reconceptualised by widening the model's social norms construct by appealing to cognitive social theory to include both internally formed social norms and the external influences of bonding and bridging cognitive social capital. Perceived leadership skill is incorporated as the key measure of bridging social capital. Since previous research is circumspect about the direct influence of social norms, the model is also recast to hypothesise external social capital and internal social norms, as antecedents of the two key TPB constructs of perceived desirability and feasibility of entrepreneurship. Thus cognitive social capital is linked, both internally and externally formed, indirectly with entrepreneurial intentions. This model is then tested in the context of a sample of students in a developing middle income economy where entrepreneurship has high salience among young people, namely Colombia.

Using well-established and validated instruments, the results presented validate the roles of perceived desirability and feasibility in explaining entrepreneurial intentions amongst Colombian undergraduate students. Support is also found, using well-establishment instruments for perceived leadership skill and social norms, for the indirect influence of bridging and bonding social capital on intentions. This supports the further promotion of entrepreneurial intentions through the fostering of leadership skills in the business education process in this cultural and economic context. The remainder of the paper is as follows. Building on this introduction, a further literature review is provided from which is proposed a revised conceptual framework and hypotheses. The empirical methodology is then set and results are described. The implications of these results are then developed, before a brief conclusion.

## **Literature review and conceptual development**

### *previous literature*

Entrepreneurial intention has been studied from a range of different approaches. One of the most popular is to view business-venturing intentions as planned behaviour, dependent on human volitional control (Ajzen and Fishbein, 2005). According to the TPB, one of the most important components in performing an action is the intention to perform it (Ajzen, 2005). The TPB argues that entrepreneurial intention depends on three factors (Kreuger et al., 2000). The first is perceived desirability, that is the attitude or degree of attraction that an individual enjoys towards entrepreneurship. The second is perceived feasibility, that is an individual's self-perceived capacity to undertake an entrepreneurial venture, often measured in terms of a self-efficacy measure, but in early versions of TPB expressed as perceived behavioural control (Ajzen, 1991). The third is social norms, the perceived level of normative social pressure and beliefs about adopting this type of behaviour (Ajzen, 2005; Ajzen and Cote, 2008; Kreuger et al., 2000). In this conceptual ordering, entrepreneurial activity can be predicted from the influence of these factors on intentions which in turn might be derived from individual antecedent factors such as demographic characteristics or personality traits and from purely situational factors (Ajzen, 2011; Krueger et al., 2000).

There are a large number of recent studies that seek to validate this model in relation to intention to start a business in various contexts, including in a Hispanic context (García-Rodríguez et al., 2013; Krueger et al., 2000; Liñán and Chen, 2006; Liñán et al. 2011; Liñán et al., 2013; Nishimura and Tristán, 2011). Results support the conclusions that perceived desirability and perceived feasibility are individual intrinsic characteristics that influence confidence to start a new business. Individual assessment of embarking on behaviour with uncertain and potentially unknown consequences, such as starting a new business, is in essence one of self-efficacy perception (Krueger and Brazeal, 1994). Self-efficacy as a

construct has demonstrated predictive capacity for entrepreneurial activity across different cultures, in contrast to social norms, which seem to be more closely linked to cultural variation (Moriano et al., 2012). However, the roles of a range of other factors on entrepreneurial intention, including demographic and cultural, are less clear.

The direct role of social norms in influencing entrepreneurial intention in the TPB is therefore one area of debate in the literature. Empirical analysis on the explanatory role of social norms has been far less conclusive (Ajzen, 1991, Krueger et al., 2000; Liñán and Chen, 2009). This has led some to reformulate the model or simply to omit social norms. The inclusion of constructs to capture external social observation and engagement, through the application of social cognitive theory (Bandura, 1988; 1989) and summarized in terms of the strength of formal or informal social ties (Granovetter, 1983), have been proposed as a way forward (Liñán and Santos, 2007). Social cognitive theory rejects the notion that the individual self is both the sole agent and object of intentional activity, in favour of the view that it is both individual agency and the influence of the external environment that influence intentions. As Bandura states “in acting as agents over their environment, people draw on their knowledge and cognitive and behavioral skills to produce desired results” (Bandura, 1988, p. 1181).

It is suggested that the external influence of social capital may positively act on the perceived desirability and perceived feasibility of entrepreneurship (Davidsson and Honig, 2003; Zahra et al., 1999), and may provide a helpful route for reconceptualizing the linkage between social circumstances and individual cognition of entrepreneurial opportunity within the TPB. This has particular resonance in a developing country context where, because wider social ties may be weak, the direct influence of social norms on intentions may be attenuated. However, the strength of social capital may serve not only to make entrepreneurship more



appealing to young people, but also to raise their level of perceived self-efficacy to make a success of a business venture through the knowledge of having both background ties and bridging (leadership) skills to translate feasibility into intention. Effective ties might arise from close family or friendship relationships, potentially transmitted inter-generationally and within the context of family-owned businesses (Hoffman et al., 2015), and conceptualized as bonding cognitive social capital. These may be particularly important in a middle income context where levels of trust in formal, public institutional structures may be relatively weak (Laspita et al., 2012). The impact of weaker social ties in helping to explain entrepreneurial intention may also be supported through the role of bridging cognitive social capital. These derive from an individual's contact with entrepreneurial networks and abilities to engage with resource-providing and supporting individuals and organizations (Liñán and Santos, 2007). The strength of bridging social capital ties may be difficult to capture directly. However, an individual's ability to exploit these ties to advantage may relate to perceptions of the importance of leadership skill, since leadership might encapsulate ability to communicate purpose to and influence others. While the wider relationship between entrepreneurship and leadership has been explored in the literature (Gupta et al., 2004; Vecchio, 2003), at the level of individual entrepreneurial intention, the connection with perceived leadership attributes and skills has not been the subject of significant research inquiry. This might be seen as a limitation of the extant literature given the potentially close association between entrepreneurship and leadership as cognitive activities.

Entrepreneurship is a concept framed mainly by the notion of change. In this sense, an entrepreneurial action might be perceived as initiating change, because the entrepreneur develops innovative opportunities that extend existing markets or create new ones (Pereira, 2003). The attributes of potential entrepreneurs include potential to initiate change, and the ability to arrange and rearrange social mechanisms for the mobilization of resources, and the

ability to accept risks and to assume the possibility of failure (Méndez et al., 2012). It is known that both demographics and culture are aggregate conditions that combine the possession of these individual attributes to influence entrepreneurship at the societal level (Wennekers et al., 2002). Thus, to make viable this idea at the level of individual intentions, entrepreneurs need not only personal abilities and experience but also the social cognitive abilities to observe and engage with groups and work teams to increase the probability of success (Pedraja and Rodriguez, 2004). Thus, perceived leadership skill, potentially acquired in a variety of social contexts, may be crucial in how individuals frame the desirability and feasibility of particular goals, as is the case in starting a new venture.

From where do these attributes originate in potential entrepreneurs? Past literature has highlighted the importance of leadership role models and peer influences for entrepreneurs (Carr and Sequiera, 2007; Falck et al. 2012; Van Auken et al., 2006), in particular focusing on parental example (Zellweger et al., 2011). For example, some authors have found an association between entrepreneurial intention and family members who have been entrepreneurs (Ahmed et al., 2010; Aldrich and Cliff, 2003; Carr and Sequeira, 2007; Singh and DeNoble, 2003). Parental example provides potential entrepreneurs with the opportunity to observe actual entrepreneurial leadership at work over an extended period of time. It might also provide family mentoring support, and a family business context that allows early stage entrepreneurial experimentation to take place. Positive peer role models raise the saliency of entrepreneurship as a career choice. Thus, social evaluation affects people's perceptions of entrepreneurship, and this in turn, depends on the culture to which individuals belong (Liñán et al., 2011). The importance of the evaluation of near-experience focuses particular attention on the contribution of factors such as family background, parental experience and parental role models, as well as peer experience and peer role models. It is also important to consider

whether environmental factors can exert some influence, such as having a recent history of entrepreneurship.

### *reconceptualization and hypotheses*

In order to frame this discussion, a reconceptualisation of the TPB, simplified to two rather than three directly influencing factors, is proposed in which the key constructs of perceived desirability of entrepreneurship (PDES) and perceived feasibility of entrepreneurship (PFES) are hypothesized as determining entrepreneurial intentions. However, it is proposed that bonding and bridging cognitive social capital, encapsulating social norms, in turn act as prior influences on perceived desirability and feasibility. It is hypothesized that bonding cognitive social capital can be captured through the two elements of family entrepreneurship background (FEB) and a scale measure of the strength of subjective norms on social attitudes about entrepreneurship (SAE). It is hypothesized that bridging cognitive social capital can be captured through an instrument measuring student perceptions of leadership (SPLI). Importantly, leadership skill is associated with influencing and bridging relationships to mutual advantage. Regardless of whether any planned business venture will employ others, entrepreneurial intention may be supported by leadership capacity in order to leverage support from other resource providers and stakeholders (Sarasvathy et al., 2014), and, in this way, to achieve proposed new project goals (Cogliser and Brigham, 2004). Leadership skill may exert an important role in each entrepreneurial stage from, pre-launch through launch to venture establishment (Molero and Morales, 2011). In anticipating transition through these stages, an intending entrepreneur may need to build trust and social capital with stakeholders and resource providers (investors, suppliers, customers and partners).

This leads to the conceptual described in Figure 1, in which the variables in rectangular boxes are observed measures (scales) and entrepreneurial intentions, shown in an ellipse, are modelled as a latent construct. The model leads to the following hypotheses:

*Bonding cognitive social capital*

H1a: FEB (family background) influences PDES (desirability)

H1b: SAE (subjective norms) influence PDES (desirability)

H2a: FEB (family background) influences PFES (feasibility)

H2b: SAE (subjective norms) influence PFES (feasibility)

*Bridging cognitive social capital*

H3: SPLI (perceived leadership skill) influence PDES (desirability)

H4: SPLI (perceived leadership skill) influence PFES (feasibility)

In addition to these hypotheses, two further statements relate to the validation of the underpinning TBC model:

H5: PDES influences intentions

H6: PFES influences intentions

FIGURE 1 NEAR HERE

**Methodology**

*context*

Colombia is an upper middle income country with an annual average GDP of \$14,200 per person (2016 estimate, CIA World Factbook), although income inequality is also high. Compared to other countries in the Latin American and Caribbean region, Colombia enjoys a supportive national public policy framework for small business and entrepreneurship (Stevenson et al., 2013). This finds particular expression in enabling legislation enacted in

2000 and 2006 which promotes start-up activity and SME development, provides small business finance and sponsors a range of activity to promote the entrepreneurial “eco-system”, though inter-agency coordination of entrepreneurship promotion. It specifically requires educational institutions, including universities, to promote an “entrepreneurial spirit”. The latest 2016 Global Entrepreneurship Monitor (GEM) report for Colombia finds a Total Entrepreneurial Activity<sup>1</sup> rate of over 27%, a figure which has been steadily increasing over the previous decade, and is high among those under 35 years and among university graduates (Buelvas et al., 2017). The GEM research generally reports very high levels of socio-cultural acceptance of entrepreneurship and high levels of perceived entrepreneurial self-efficacy in Colombia. On the other hand, entrepreneurial desirability may be reduced by low levels of small business productivity and innovativeness in Colombia (Stevenson et al., 2013), and, in common with other Latin American countries, there is a high level of economic informality which may hinder the initiation of entrepreneurial activity.

#### *questionnaire instrument and respondents*

The data were collected in the classroom context from business management major students in a university management school, within a private but very long established university, located in Bogota. In Colombia students normally commence higher education on successful completion of secondary schooling at age 17, and an undergraduate programme is of 5 years duration. Questionnaires were administered in paper form to undergraduate students across the business management major programme in the university in question, during a normal timetabled class session in order to minimize any potential method bias arising from variation in mood and context, during the period December 2012 to February 2013. Participation was voluntary in that students could choose to leave the class without remaining to complete the survey. The achieved sample was 322 responses across first to

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<sup>1</sup> Percentage of population aged 18 to 64 years preparing to start a business or with a small business trading for less than 42 months.

fourth years of undergraduate level study from a total student population of 1768, once incomplete and unusable responses were discarded. After previously obtained informed consent, participants are asked to complete the survey instrument using paper questionnaires, which were subsequently coded electronically for secondary analysis. Application of the instrument was undertaken collectively in groups of approximately 20 students at a time. The average time for completion of the questionnaires was around 30 minutes. Completed responses were then transcribed to a database suitable for secondary analysis. It is noted that reliance on students themselves as the single source of information, rather than through triangulation with other sources risks concerns about common rater and other common methods bias (Podsakoff et al., 2003).

#### *measures*

The questionnaire included four prior-validated question schedules relating to entrepreneurial intention and leadership skill constructs. All schedules were translated into Spanish and back-translated to ensure accuracy of translation.

*Perceived desirability of entrepreneurship* [PDES]. This scale was developed by Thompson (2009) to assess personal attitudes towards entrepreneurship and comprises ten items answered on a six-point Likert scale ranging from “very untrue” to “very true”. In this study, an adequate level of reliability is obtained (Cronbach’s alpha: .71), somewhat lower than Thompson’s level of .89.

*Perceived Feasibility of Entrepreneurship* [PFES]. This is a widely used general self-efficacy scale developed by Chen et al. (2001). It is used because of the conceptual similitude between perceived behavioural control and self-efficacy (Liñán et al., 2013). It comprises eight items answered on a four-point Likert scale ranging from “strongly disagree” to “strongly agree”. This scale demonstrated very high reliability (Cronbach’s alpha: .91).

*Subjective Norms* [SAE]. Subjective norms on social attitude towards entrepreneurship. This instrument, developed and described by Henley et al. (2008), comprises nine items answered on a four-point Likert scale ranging from “strongly disagree” to “strongly agree”. This scale demonstrated a moderately high level of reliability (Cronbach’s alpha: .67), which is regarded as acceptable given that this instrument is the least well developed in the overall analysis.

*Student Perceptions of Leadership Instrument* [SPLI]. Student perceptions about own leadership abilities, across four skill dimensions, as developed by Zula et al. (2010) – see Figure 2. The scale comprises twenty items answered on a four-point Likert scale ranging from “very strong” to “very weak” according to level of agreement with the statement. The scale assesses leadership skill perception and was developed to be used mainly with students. The overall scale demonstrated high reliability (Cronbach’s alpha: .82).

*Family Entrepreneurship Background* [FEB]. The questionnaire instrument also included a range of questions to ascertain individual background. These questions were developed for this research but informed by previous work. Participants were specifically asked about whether close family members or friends had an entrepreneurial background. This measure is a derived binary indicator which takes a value of one if respondents reported that any of the following were business owners: father, mother, brother or sister, other relative. Using this definition, 74% of the sample have a family entrepreneurship background.

## FIGURE 2 HEAR HERE

### *sample description*

The average age of sample respondents was 19.8 years. Somewhat over half were female (55.6%) and the vast majority were single, rather than married/cohabiting (98.1%). The majority of the sample were engaged in the third or fourth year of undergraduate study

(32.1% and 29.3% respectively). Almost all respondents sampled indicated that their family paid for their studies (92.9%), although a small minority were in receipt of a merit scholarship (5.3%), or were employed and paying for their own studies (2.8%). Correspondingly, the majority of the participants belong to families in high (40.1%) or middle (41.9%) socio-economic occupational strata, defined according to a standard Bolivian statistical classification understood by the respondents. This socio-economic profile is typical of the wider Colombian academic higher education student population. 46% of respondents indicated that they had acquired some work experience during their course of study. The family and peer-group entrepreneurial background of survey participants is summarized in the “radar” chart in Figure 3. This shows that, although only a minority of students appear to have a parent or peer (sibling or close friend) who is a business owner, the majority may have some level of bonding social capital within their wider family either from parents, siblings or other relatives, which may support any entrepreneurial intentions.

FIGURE 3 HEAR HERE

## Results

The hypotheses were tested using a structural equation estimation of the conceptual model set out in Figure 1. This estimation method is asymptotically distribution-free to allow for the non-normality of the set of variables used in estimation (Browne 1984). The model was estimated using the AMOS package within SPSS (Byrne, 2001). Results for this are shown in Figure 4. The Chi-squared statistic in this case is a “badness of fit” statistic, and the reported statistic of 4.352 with 4 degrees of freedom has a p-value of 0.360, indicating that the model has a high level of explanatory power. This is confirmed by the other summary goodness of fit statistics, Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index



(AGFI) and Comparative Fit Index (CFI), all of which are very close to one. Correspondingly the root mean squared error of approximation (RSMEA) is close to zero, and below the threshold of 0.06 which has been proposed (Hu and Bentler, 1999). Overall the model obtained has a satisfactory goodness of fit, and can therefore explain the relationships among the set of analyzed variables.

The strength (standardized regression weights) and statistical significance of the individual relationships in the model, corresponding to particular hypotheses, are also shown in Figure 4. A full summary of these is also reported in Table 1. Turning to first to bonding cognitive social capital, the results show that a family background in entrepreneurship is not associated with either higher perceived desirability (H1a) or higher perceived feasibility (H2a) of entrepreneurship. However subjective norms on the social acceptability of entrepreneurship are significantly and strongly associated with perceived feasibility of entrepreneurship (H2b), and less strongly associated (i.e.  $p\text{-value} < 0.05$ ) with perceived desirability (H1b).

FIGURE 4 NEAR HERE

TABLE 1 NEAR HERE

The results for leadership skills as a measure of bridging cognitive social capital are more conclusive with both hypotheses connecting leadership skill to perceived desirability (H3) and perceived feasibility (H4) accepted. In drawing this conclusion, it is important to point out that the Zula et al. (2010) leadership skill model was pre-tested. These results (not reported) showed that the leadership construct (Figure 2) can be explained by its individual skill factor components with statistical significance. Amongst these factors, interpersonal and intrapersonal leadership skill was the most important with a standardized coefficient of .75. However the other three factors each had coefficients above .6.

Finally, the results confirm that this reconceptualization of TPB is a valid approach for understanding entrepreneurial intentions in this sample, since both H5 and H6 are strongly accepted. The figure shows how entrepreneurial intention, as latent variable, can be explained by the two dimensions of perceived desirability and perceived feasibility, with standardized regression weights of .51 and .79 respectively. These significant weights accord well with the findings of the wide body of previous research on TPB that supports positive contributions from both perceived feasibility and perceived desirability to entrepreneurial intentions.

## **Discussion**

The findings here provide some support for the reconceptualization of the theory of planned behaviour using social cognitive theory to include social capital in a model of entrepreneurial intentions, in the particular context of Colombia. However, the model is only partially supported in terms of the role of bonding cognitive social capital. Whereas subjective norms on the social acceptability of entrepreneurship are found to be positive associated with both perceived desirability and feasibility, no relationship between family entrepreneurship background and either of these two key constructs in the TPB is found. One explanation for the relative weakness of these finding concerning any causal linkage between bonding social capital and entrepreneurial intentions relates back to prevailing attitudes at the societal level in Colombia. As noted early, international comparative data (GEM) suggests that there is already a very high level of social and cultural acceptance of entrepreneurship in the country. This implies that there may be little variation in attitudes across a relatively homogeneous sample of young people. In particular, the high level of social connection between young people and practicing entrepreneurs in the wider family and social milieu (as reported in Figure 2) may imply little distinction in the assessment of the entrepreneurial

desirability between those with a strong immediate family background and those without. Intending student entrepreneurs are able to find bonding social capital resource without necessarily turning to their parents and immediate family members. Nevertheless, bonding social capital is to be found more generally in subjective assessments of shared attitudes towards entrepreneurs, particularly in the subjects' assessment of the perceived feasibility of entrepreneurship, where the regression coefficient is large (.50) and statistically significant.

Undergraduate student samples tend to be fairly homogeneous across socio-economic domains, so care should be taken in terms of the generalizability of these findings across other population groups in other socio-economic contexts. Family background has in previous research been observed to be significantly associated with entrepreneurial intention (Aldrich and Cliff, 2003; Carr and Sequiera, 2007). While the absence of associations with family background might offer avenues of investigation for particular targeting of support, their low level of significance in this study may reveal more about the difficulties, in the particular context, of achieving entry onto higher education business courses for poorer students from less business-orientated backgrounds. Implications may follow for university admissions policies and for funding support for poorer students who display nascent entrepreneurial talent.

On the other hand, the results are strongly supportive of our conceptualization of perceived leadership skills as indicative of the presence of bridging cognitive social capital. They demonstrate a very high level of relationship between the formation of entrepreneurial intention and self-evaluated leadership skills in this sample of Latin American undergraduate business students. This conclusion supports the suggestion that leadership and entrepreneurship may share common features (Brandstätter, 2011; Vecchio, 2003), and therefore that subjects displaying high levels of self-assessed leadership skill may also score

highly on antecedent drivers of entrepreneurial intention, as described in the TPB model. Leadership skills, as captured in the scale such as that used in this study (Zula et al., 2010), appear to reinforce key underlying constructs of the TPB model. Students with strong self-assessed leadership skill are able to accumulated more readily bonding cognitive social capital, which in turn reinforces their perceptions of the desirability and feasibility of entrepreneurship. In this sense these findings support earlier work which highlights the important mediating role of entrepreneurial self-efficacy on the relationship between individual cognitive characteristics intentions (Krueger et al., 2000; Zhao et al., 2005).

This finding has potential value for entrepreneurship education programmes which, while they may focus attention on other elements of TPB such as raising perceptions of the social desirability and acceptability of entrepreneurship as a career choice, also focus on raising perceived feasibility (Cooper and Lucas, 2006; Otuya et al., 2013; Piperopoulos and Dimov, 2015). However, authenticity of activity within programmes may be an important ingredient here (Lucas et al., 2009). Provision of genuine self-efficacy raising entrepreneurial activity for undergraduate students can be difficult to achieve in practice because of resourcing and opportunity constraints, particularly in the context of a less developed entrepreneurial eco-system. As a result students may have fewer opportunities to observe and gain work experience alongside experienced entrepreneurs. Levels of early stage entrepreneurial activity in Latin American, including in Colombia, are high, as indicated in Global Entrepreneurship Monitor surveys (Buelvas et al., 2017), suggesting that entrepreneurship as a choice enjoys a high degree of salience among young people. However well-established opportunity-focused, as opposed to necessity-focused, innovative businesses able to provide appropriate formative experience for students may still be limited. Therefore, a wider focus on enhancing students' leadership skills through opportunities afforded more widely across the higher education classroom and social context may provide a valuable

alternative or substitute means to acquiring higher levels of perceived feasibility found to be associated with entrepreneurial intention, in turn supporting a wider perspective on the relationship between entrepreneurship and leadership education (Harrison and Leitch, 1994). However, an important caveat here is that supporting education provision may need to have a strong practical rather than theoretical focus, building on prior experience, if it is to be most effective in supporting entrepreneurial self-efficacy (Peterman and Kennedy, 2003; Piperopoulos and Dimov, 2015).

It is also important to provide some further comment on the representativeness of the findings here. Student respondents are a popular and valuable source of information for researchers in order to focus on the experience of young people at the stage of making career decisions, and in order to draw potential implications for the focus and direction of entrepreneurship and business education. However, it has already been noted that student samples tend to be highly homogeneous and may therefore not support conclusions reached in other population-representative surveys. The focus here has been on a “convenience” sample drawn from one particular programme major. Conclusions may be different for science/engineering students or for humanities majors, where barriers and support factors may be different (Luthje and Franke, 2003). Furthermore, a fuller research agenda might include some degree of longitudinal tracking to trace career progression from intention to actual business start-up, and from self-evaluation of particular skills towards more objective assessment of leadership experience, not least to address questions of causality as opposed to statistical association.

## **Conclusion**

Entrepreneurial intention is seen across a large body of research literature as an important topic for research since it is grounded in the proposition that psychological intention is a good predictor of subsequent action. The theory of planned behaviour has been used in the context of entrepreneurship research to identify antecedent constructs for intentions, particularly in the context of understanding career choices of young people. This paper has investigated the way in which TPB may be reconceptualized to allow the key constructs of perceived desirability and feasibility to mediate the role of cognitive social capital in determining entrepreneurial intentions. Recent work has argued that entrepreneurial intention and leadership skill may share significant features in common, such as attitude to risk, proactivity and the ability to develop a wider, shared vision of future opportunity.

In the light of this the paper proposes that leadership skill can usefully be viewed as an indicator of the formation of bridging cognitive social capital, and has investigated the potential association between measures of both bridging and bonding social capital and intentions, using data drawn from a sample of Colombian undergraduate business students. It finds a strong association, in particular, between leadership skill and the perceived desirability and feasibility of entrepreneurship, consistent with cognitive social capital being mediated in its impact on entrepreneurial intentions. Significant evidence is also found for a strong association between perceived feasibility and the social acceptability of entrepreneurship, conceptualized as indicative of bonding cognitive social capital. No strong evidence is found that intentions are also explained by family entrepreneurial background, although this finding may be specific to the particular Colombian context where entrepreneurship already has high socio-cultural salience. Higher education institutions, particularly in a less developed economic context such as this, may seek to raise entrepreneurial intentions amongst student populations. These findings suggest that activity in parallel to support and enhance student leadership skills may offer an alternative and

potentially more feasible approach to other approaches aimed at providing practical self-efficacy raising entrepreneurship experience.

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Further reading:

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**Table 1: Structural Equation Model Regression Results and Hypothesis Summary**

			<i>Regression Weights</i>		<i>Standardized Regression Weights</i>
			Coefficient	p-value	Coefficient
PDES (desirability)	<---	FEB (family)	1.602	.250	.059
PDES (desirability)	<---	SAE (subjective norms)	.095	.023	.117
PFES (feasibility)	<---	SAE (subjective norms)	.631	< .001	.497
PFES (feasibility)	<---	SPLI (leadership)	.090	< .001	.243
PDES (desirability)	<---	SPLI (leadership)	.092	< .001	.387
PFES (feasibility)	<---	FEB (family)	3.296	.094	.078
Entrepreneurial Intentions	<---	PDES (desirability)	1.000		.505
Entrepreneurial Intentions	<---	PFES (feasibility)	1.000		.786

Hypothesis summary:

*Bonding cognitive social capital*

H1a: family entrepreneurs influence the perceived desirability of entrepreneurship	Rejected
H1b: subjective norms influence the perceived desirability of entrepreneurship	Accepted
H2a: family entrepreneurs influence the perceived feasibility of entrepreneurship	Rejected
H2b: subjective norms influence the perceived feasibility of entrepreneurship	Accepted

*Bridging cognitive social capital*

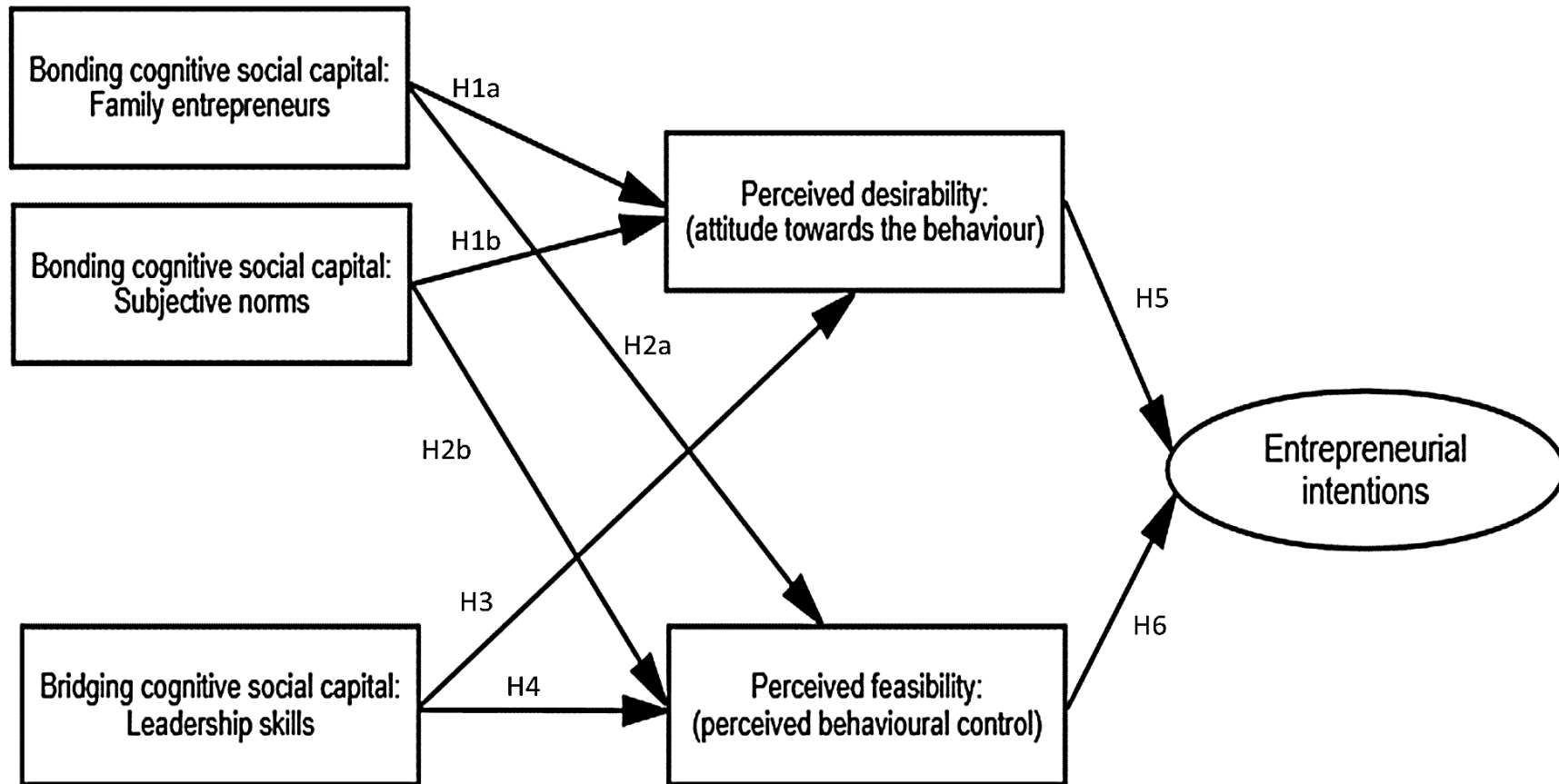
H3: leadership skills influence the perceived desirability of entrepreneurship	Accepted
H4: leadership skills influence the perceived feasibility of entrepreneurship	Accepted

*TPB validation*

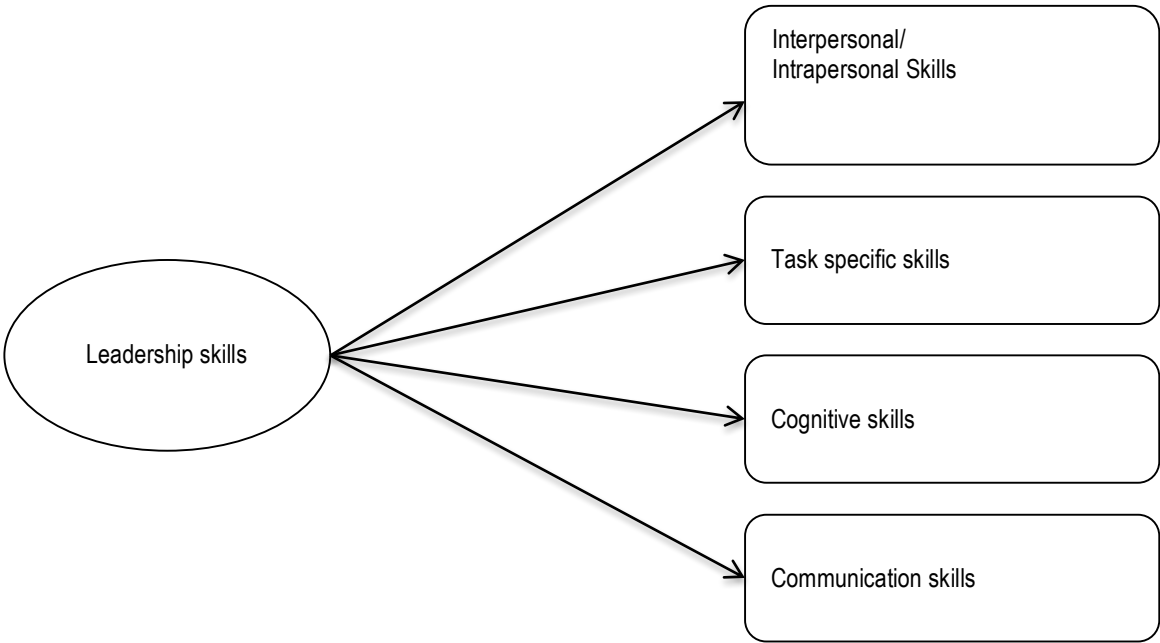
H5: perceived desirability of entrepreneurship influences entrepreneurial intentions	Accepted
H6: perceived feasibility of entrepreneurship influences entrepreneurial intentions	Accepted

Source: authors' own calculations from primary data.

**Figure 1. Conceptual Framework**



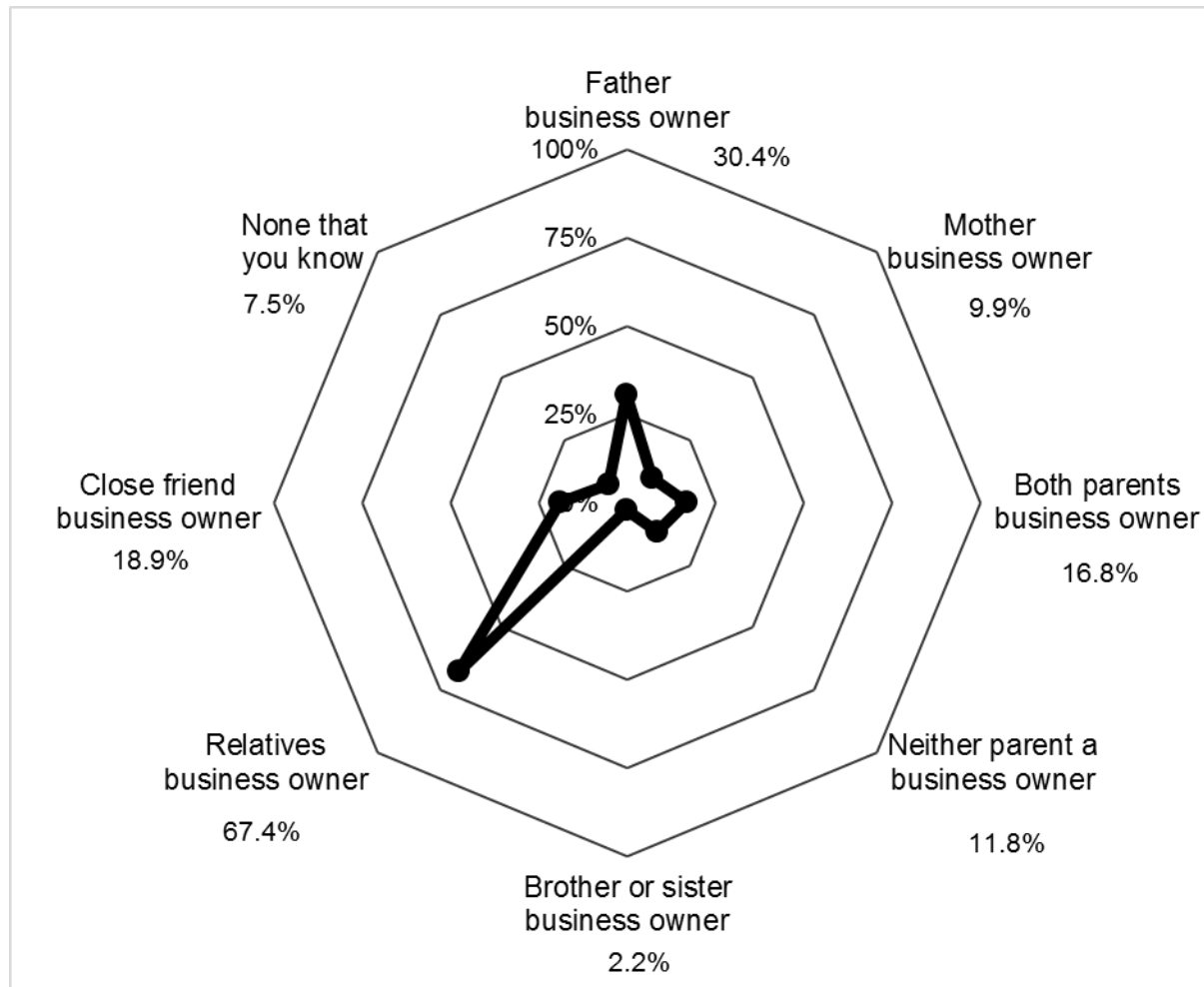
**Figure 2. Leadership Skills Scale**



Source: Zula et al. (2010)

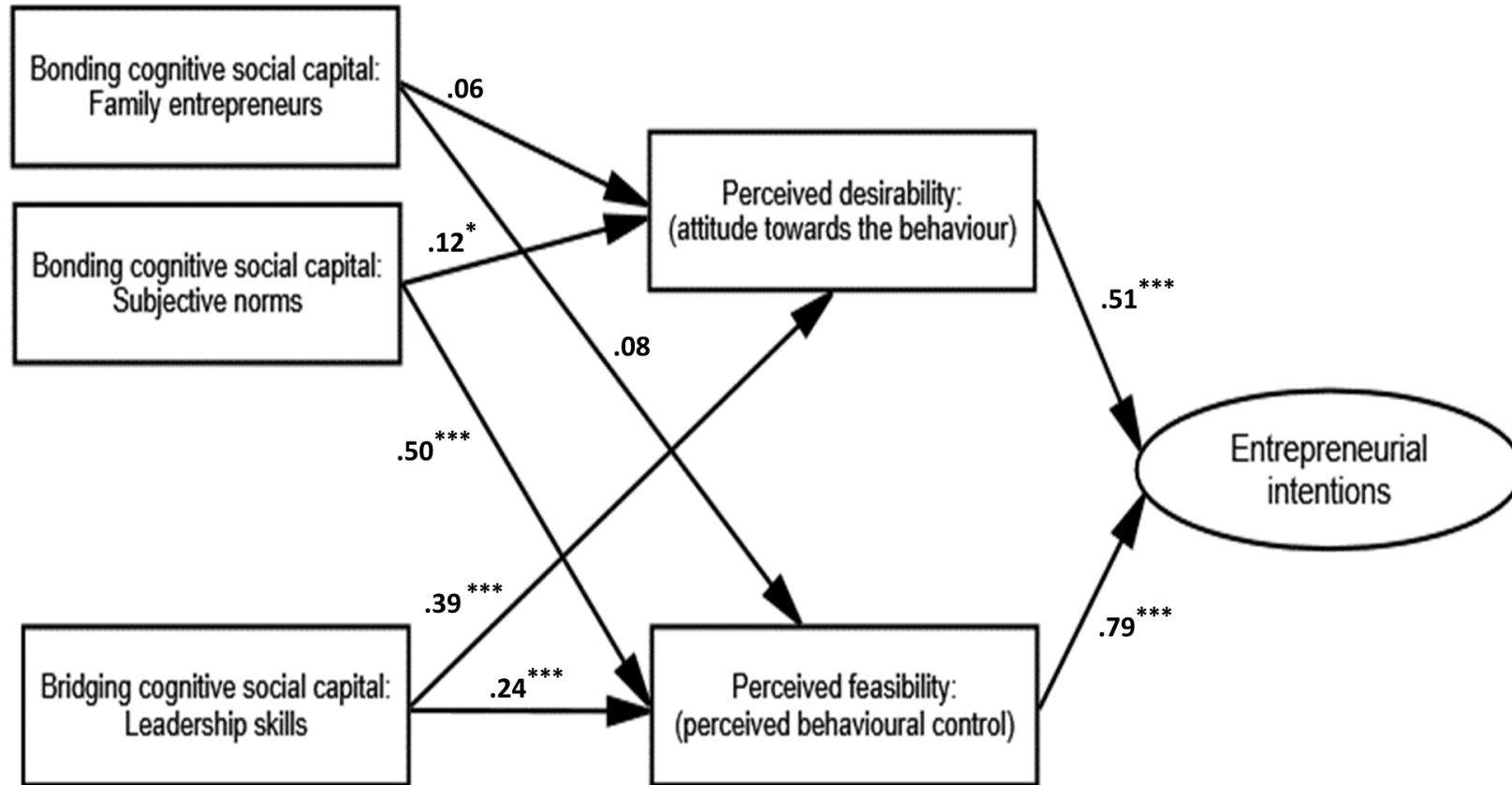


**Figure 3. Entrepreneurial background of survey participants.**



Source: authors' own calculations from primary data

Figure 4. Structural Equation Model Estimates



Notes: Estimation by Maximum Likelihood; model Fit:  $\chi^2_{(4\text{ DF})} = 4.352$ ; CMIN/DF= 1.088; GFI= .995; AGFI= .980; CFI= .998; RMSEA= .017. \* denotes  $p < 0.05$  \*\*\* denotes  $p < 0.001$ .

Source: authors' own calculations from primary data