

## INFLUENCE OF DEMOGRAPHIC FACTORS ON SELF-EMPLOYMENT INTENTIONS OF UNIVERSITY STUDENTS

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**Abstract:** A persistently high unemployment rate among the youth, particularly university graduates, is being experienced in South Africa. Most previous conducted studies among university students on self-employment, focused on things such as birth order, family interaction, social class and economic circumstances. Noticeably, none of these studies investigated the possible relationship between field of study and year of study on self-employment intentions of university students. This study, therefore, investigated the influence of field and year of study on self-employment intentions of university students in South Africa. A questionnaire was administered among students in different fields of study at four universities in two provinces of South Africa. Analysis of variance (ANOVA) was used to compare students' perceptions in terms of field and year of study regarding self-employment intentions. Statistically significant differences were found among students in terms of field and year of study regarding self-employment intentions. Although the majority of students indicated that they intend to be self-employed, a substantial number of students showed less interest in self-employment as a career. It may therefore be wise for universities to consider multidisciplinary degrees which include self-employment/entrepreneurship modules.

**Key words:** Self-employment intentions, field of study, year of study, university students

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### Introduction

For many decades self-employment has been viewed as an important component of economies of many countries and, for this reason, it has been a topic of discussion by government and policy makers (Bogan and Darity, 2008). The main reasons for self-employment are: a) employees being retrenched (de Mel et al., 2010); b) individuals preference for the autonomy and flexibility of self-employment (Maloney, 2004) and c) individual's entrepreneurial nature (Bennet and Estrin, 2007). Many countries have adopted policies which encourage self-employment, particularly among the youth. In Malaysia the government provides funding to encourage unemployed graduates to start businesses (Yusof et al., 2008) while the UK's government established the National Council for Graduate Entrepreneurship (NCGE) to increase the number of graduate entrepreneurs and ensure the

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sustainability of their businesses (Nabi and Holden, 2008). In Uganda, the government invited young people to apply for grants that assist them to establish their own businesses (Blattman et al., 2014). In Nigeria, various initiatives have taken place in an attempt to encourage the youth to consider self-employment as a career option (Ekpoh and Edet, 2011). In the case of South Africa, the government adopted economic policies and youth development initiatives to stimulate youth entrepreneurship (Scheepers et al., 2009). Recently, the Forum for Entrepreneurship Development Centres (FEDCI) launched an initiative aimed at developing universities in South Africa as centers for entrepreneurship and innovation (Urban and Richard, 2015).

Graduate self-employment has attracted increased attention for its role as a potential driver of economic growth and employment (Davey et al., 2011). This was in response to fierce competition for jobs in the graduate labour market and as a result those who are searching for jobs are encouraged to consider self-employment as an alternative career option (Burger et al., 2004). It is for such reasons that researchers are continuously investigating self-employment intentions among university students. Peterman and Kennedy (2003) found that prior experience in enterprise programmes was instrumental towards the desirability to start a business. Wu and Wu (2008) found that postgraduates were less likely to be self-employed compared to those with diplomas and undergraduate degrees. They concluded that this could be due to the fact that those with diplomas and undergraduate students were much younger and had more energy to start businesses than their postgraduate counterparts.

South Africa is currently experiencing persistently high unemployment rates among its graduates. Despite high unemployment rates among university graduates in South Africa, self-employment levels are at disappointingly low levels. Knowledge of university students' self-employment perceptions is, therefore, important. Hence, the purpose of this study was to investigate the influence of selected demographic variables on university students' self-employment intentions, namely field and year of study.

### ***Self-employment***

Self-employment is viewed differently in different contexts (Earle and Sakova, 2000). This is reflective of a number of standpoints articulated in an attempt to describe it. For example, one such view is that entrepreneurship, organisational behaviour, social class and career have particular relevance to the study of self-employment (Carrol and Mosakowski, 1987). The self-employed may be successful business owners while, on the other hand, some self-employed individuals' activities and income differ very little from those of the unemployed (Earle and Sakova, 2000). The self-employed are a highly heterogeneous group as some are entrepreneurial while others choose self-employment due to their inability to find appropriate paid employment in the prevailing labour market conditions (Dawson et al., 2009). Due to the multi-dimensional nature of self-employment, researchers find it difficult to arrive at a universally acceptable common definition. Le (1999) defines self-

employment as comprising individuals who carry out work for profit or family gain in cash or in kind. Kolvereid and Isaksen (2006) contend that the number of average weekly hours that a person spends working in his/her business explains whether a person is self-employed or not. Another perspective is that self-employment refers to one's main work in a business owned, entirely or partly, by him/her (Bernhardt, 1994). Essentially, self-employment is characterised by autonomy and control over employees (Luber and Leicht, 2000) as it presents an opportunity for people to be in control of their life and they do not answer to anybody (Blanchflower, 2000). Nonetheless, it would be naive not to note that self-employment is preceded by intentions because intentions offer a better understanding of how new businesses are formed (Malebana, 2014).

### ***Self-employment intention***

Intentions are "the single best predictor of any planned behaviour, including self-employment" (Urban and Barreira, 2007:571). This is manifested by abundant evidence that points to a strong relationship between self-employment intention and actual entrepreneurial activity (Turton and Herrington, 2012). Therefore, a review of the literature dealing with self-employment intentions provides a meaningful insight regarding the concept. A literature search, however, on self-employment intentions reflects that research in this domain in the South African context is scarce, providing the rationale for this study. In the context of this study, self-employment intention is defined as the likelihood of students engaging in self-employment soon after completing their studies.

The intention for self-employment is a consequence of many influential factors hence the investigation thereof has become a focal point in entrepreneurship research (Schwarz et al., 2009). Viviers et al. (2013) are of the view that one's personal background, entrepreneurial motive and exposure to entrepreneurship education influence entrepreneurial intentions. Other factors that can shape a person's self-employment intentions include cultural and contextual factors (Morrison, 2000). Generally, individualistic cultures tend to show strong entrepreneurial values that promote self-reliance and independent action whereas collectivist societies do not. Similarly, work environment and personal factors have the potential to influence one's intention to start a business (Lee et al., 2011). For example, low job satisfaction among employees who are confident about their skills may cause them to leave their companies and start their own businesses. Another perspective is that perceived desirability, perceived feasibility and propensity to act are the factors that give effect to intentions to start one's own business (Peterman and Kennedy, 2003). There is also a view suggesting that prior experience, need for achievement and need for control along with individual, social, political and economic variables may influence self-employment intentions (Bird, 1988). According to Urban and Richard (2015), when entrepreneurship is developed through teaching and learning, the likelihood is that the levels of entrepreneurial intent will increase. This is unsurprising since there is a growing acceptance among scholars that entrepreneurship can be taught (Muofhe and Du Toit, 2011).

There are numerous attempts to strengthen, encourage and support self-employment as an attractive substitute to wage employment for university students (Schwarz et al., 2009). A plausible reason could be due to the realisation that in recent years there has been increasing unemployment rates among graduates. Young people and university graduates in particular, are future contributors to the economy. It is for reasons such as these that many nations view the popularisation of entrepreneurship as the solution to high unemployment among the youth (Brown et al., 2011). Furthermore, there is a view among researchers of entrepreneurship that if university students are exposed to entrepreneurship training, they are likely to intend to start businesses (Izquierdo and Buelens, 2008). Pittaway and Cope (2007) found that entrepreneurship education has an impact on students' propensity and intentionality. Similarly, Pruett et al. (2009) found that exposure to entrepreneurship and social norms influence one's intention to start one's own business. This was confirmed by Izquierdo and Buelens' (2008) study among 236 university students who were exposed to entrepreneurship courses where it was revealed that the students' attitude towards entrepreneurship increased and this resulted in higher intentions to start new businesses.

Since 1999 in the UK, there has been an increasing number of graduates who participate in self-employment as revealed by the examination of the UK's statistics from the Higher Education Statistics Agency (HESA) (Mclarty, 2005). It is reported that the interest in self-employment among graduates in the UK has increased consistently over the years. In the US, Crant (1996) found that self-employment intentions were influenced, to a great extent, by variables such as gender, education and entrepreneurial parents. A disturbing fact is that in the case of South Africa, students expect to find work in the corporate world and give little attention to self-employment (Urban and Richard, 2015). Reflecting on this disturbing fact, it could be argued that the low levels of self-employment intentions among young people in South Africa are as a result of them expecting to find employment in the corporate world.

Despite the South African government placing self-employment high on its agenda, self-employment intentions among university students remain very low (Fatoki, 2010). Among many, some of the cited obstacles regarding the low self-employment intentions among university students include lack of access to capital, lack of competency, crime, lack of willingness to take risk and fear of failure. Some place the blame squarely on the inability of the higher education system in enhancing entrepreneurial skills of students (Muofhe and Du Toit, 2011). For example, the education system does not equip students with the skills and practical experience needed to start and run successful businesses (Kroon et al., 2003) while the current curriculum at universities educate students about entrepreneurship rather than educating them to be entrepreneurs (Radipere, 2012). These observations are supported by Simrie et al. (2011) who found that the rate of entrepreneurial activity in 2011 was comparatively lower among individuals who were in the 18 to 24 years age group and those who were in the 25 to 34 years age group. The afore-mentioned

studies reveal that self-employment among young people in South Africa is at levels that are unacceptably low. Previous studies (Wu and Wu, 2008) found a correlation between the field of study and self-employment intentions of university students. On the other hand, there is a view suggesting that students who are nearing their end of study (year of study) are likely to show high validity of self-reported self-employment intentions (Walter et al., 2013). For that reason, there is a need to know at what stage self-employment intentions emerge and whether there are any differences, particularly in South Africa.

### **Research Methodology**

A comprehensive literature review on self-employment was conducted. Furthermore, for the empirical research a quantitative research approach was used. A non-probability convenience method was used to select the university students. Four universities were selected based on accessibility and cost-effectiveness. Second year, third year and postgraduate students from different fields of study were requested to participate in the survey. These students were selected because they were deemed to be more mature than their first year counterparts and therefore they could make informed decisions whether they intend to be self-employed or not. In support of this view, Gird and Bagrain (2008) argued that senior students (final years) possess a broad spectrum of intentions and attitudes towards entrepreneurship. Similarly, Kim (2007) found that as age increases, the probability of self-employment increases. For that reason, the level of education can be used to develop a student's entrepreneurial profile (Farrington et al., 2012). Furthermore, the group is homogeneous and the information could lead to universities preparing students for entrepreneurial ventures through development or changes in curricular.

Non-probably convenience sampling was used to recruit the study sample from four universities which were selected, based on accessibility and cost-effectiveness, from a sampling frame of 25 public universities in the nine provinces of South Africa. The sample size was determined based on the sample size of previous studies conducted among students in terms of their self-employment intentions (Bonn et al., 2009; Fatoki, 2010). A total of 800 second-year, third-year and postgraduate university students were invited to participate in the study. In the end, a total of 482 eligible questionnaires were used in the final analysis.

A questionnaire was developed to investigate university students' perceptions in terms of intentions for self-employment. Items were drawn from previous similar studies. Section A of the questionnaire requested demographic information of students such as gender, age, field of study, year of study and race. Section B of the questionnaire comprised items investigating the perceptions of students regarding their self-employment intentions. The items on Section B were scored on a 6-point Likert type scale ranging from 1 (strongly disagree) to 6 (strongly agree).

Cronbach's alpha was used to test the reliability of the scales. Coefficient Cronbach alpha values were computed for the construct of intention for self-employment. A coefficient value of 0.60 is regarded as acceptable (Malhotra, 2010). An overall

Cronbach coefficient value was 0.93 for the construct of intention for self-employment, indicating meritorious reliability. Three experienced researchers were requested to establish the face and content validity of the questionnaire. This was done in order to ascertain whether the questions were properly constructed and that the instrument did not comprise errors.

Descriptive statistics were used to establish the demographic profile of participants. Exploratory factor analysis was used to explain the perceptions of university students regarding their intention for self-employment. Analysis of variance (ANOVA) was conducted to investigate whether there were any significant differences in terms of year of study and field of study regarding intention for self-employment among university students.

## Results

In terms of gender the sample comprised 62 percent female and 38 percent male participants. Majority of participants were Black students constituting 81 percent of the sample. In terms of field of study majority of participants (36%) were enrolled for commerce qualifications followed by education (15%) and IT (14%). The balance were in other fields of study. The highest number of participants were third year students (62%), followed by postgraduate students (20%) and second year students (18%).

The KMO measure of sampling adequacy and the Bartlett's test of sphericity were used to assess the suitability of the data for analysis prior to the extraction of the factors. A KMO value of 0.95 indicated that the data were meritorious for analysis and the Bartlett's test of sphericity was significant at 0.000 supporting the factorability of the correlation matrix (Malhotra, 2010). Principal component analysis with varimax rotation was conducted on the data. The factor comprised fourteen items that relate to intention for self-employment and three items were deleted because they loaded very low on the factor. This factor explained a total variance of 62.03 percent and was named intention for self-employment. The final factor structure is reported in Table 1.

**Table 1. Scale reliability**

Research constructs		Descriptive statistics		Cronbach's test		Factor loading
		Mean	SD	Item-total	$\alpha$ value	
Intention for self-employment	ISE1	4.42	1.10	0.923	0.93	.934
	ISE2			0.923		.923
	ISE3			0.923		.912
	ISE4			0.924		.894
	ISE5			0.924		.879
	ISE6			0.925		.874
	ISE7			0.925		.869



Research constructs	Descriptive statistics		Cronbach's test		Factor loading
	Mean	SD	Item-total	α value	
ISE8			0.925		.864
ISE9			0.926		.842
ISE10			0.927		.829
ISE11			0.926		.823

ISE1 to ISE 11 = Intention for self-employment items.

Analysis of variance (ANOVA) was conducted to compare students' year of study and field of study with regard to intention for self-employment. There were statistically significant differences at the  $p < 0.05$  level in terms of intention for self-employment for the different years of study. Table 2 provides mean scores, standard deviation and p-value for year of study in terms of intention for self-employment.

**Table 2. Year of study differences for intention for self-employment**

Construct	Year of study	N	Mean	Std. Deviation	Sig
Intention for self-employment	Second year	94	4.4769	1.10937	.042*
	Third year	301	4.4828	1.05079	
	Post graduate	87	4.1525	1.24231	
	Total	482	4.4221	1.10390	

\*statistically significant at  $p < 0.05$

Post hoc comparisons using Tukey HSD test indicated that with regard to intention for self-employment the mean score for postgraduate students ( $\bar{x} = 4.15$ ) was significantly different from the mean scores for second-year students ( $\bar{x} = 4.78$ ) and third-year students ( $\bar{x} = 4.48$ ). It is evident that postgraduate students are less interested to own businesses compared to other groups. This finding confirms Wu and Wu's (2008:768) finding that postgraduate students are less interested in starting businesses compared to students with diplomas or degrees. A plausible reason for this disparity was that diploma and undergraduate students are young and full of energy to start new businesses compared to postgraduate students. Cohen's d-value measured the effect size of differences in means. The magnitudes of the differences between postgraduates and second years (0.26) and between postgraduates and third years (0.27) were large (Pallant, 2013). This tends to show a practical significance. There were statistically significant differences at the  $p < 0.05$  level in terms of intention for self-employment for the different fields of study. Table 3 provides the mean scores, standard deviation and p value for different fields of study regarding intention for self-employment.

**Table 3. Differences among field of study regarding intention for self-employment**

Construct	Field of study	N	Mean	Std. Deviation	Sig
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Intention for self-employment	Commerce	173	4.7742	.87740	0.000*
	Health	8	4.1848	1.78077	
	Law	23	4.4255	.98304	
	Education	72	3.7360	1.19873	
	Engineering	10	4.7857	.79539	
	IT	68	4.0356	1.14850	
	Other	128	4.5309	1.06521	
	Total	482	4.4241	1.10269	

\*statistically significant at  $p < 0.05$

Post hoc comparisons using Tukey HSD test indicated that with regard to intention for self-employment the mean score for students who enrolled for education ( $\bar{x} = 3.74$ ) was significantly different from the mean score of commerce ( $\bar{x} = 4.77$ ) and engineering ( $\bar{x} = 4.79$ ) students. It is evident that students who enrolled for education qualifications are less likely to start their own businesses compared to other groups. This finding confirms Falk and Leoni's (2009) finding that students who enrolled for education degrees were less likely to become self-employed. Furthermore, with the highest mean score ( $\bar{x} = 4.79$ ) engineering students are more likely to start their own businesses compared to others. This finding confirms Wu and Wu's (2008) finding in which they found that engineering students were more inclined to start businesses compared to other groups. Cohen's d-value measured the effect size of differences in means. The magnitudes of the differences between education and commerce (1.00) and between education and engineering (1.01) were large (Pallant, 2013). This tends to show a practical significance.

## Discussion

The objective of this study was to investigate the influence of the field of study and year of study on self-employment intentions among university students. Reflecting on the findings, it is evident that there were significant differences among students in terms of year of study regarding intention for self-employment. Similar to previous studies South African postgraduate students tend to be less interested in self-employment compared to their junior counterparts. This is consistent with Urban and Richard's (2015) study in which they found that final year students direct their efforts towards employment rather than self-employment. This could be interpreted as suggesting that postgraduate students are confident in their abilities to secure employment in the corporate world hence lesser interest in self-employment. A deduction drawn from this could be that they were taught to be job seekers instead of job creators. Muofhe and Du Toit (2011) and Radipere (2012) argue that the education system in South Africa is unable to enhance entrepreneurial skills of students. Therefore, it would be appropriate to suggest that entrepreneurship as a subject should be incorporated into the curriculum and taught at entry level across the higher education sector. However, it is important that universities adopt a



teaching style that is action-oriented to support empirical learning (Dhliwayo, 2008) as the more educated one is about entrepreneurship, the more likely one will engage in self-employment activities at later years of their life (Kim,2007).

Moreover, postgraduate students can be made aware that self-employment is an alternative to employment in the corporate world since the level of job satisfaction among the self-employed is much higher than for waged and salaried employees (Karoly and Zissimopoulos, 2004). A plausible reason could be that the self-employed have a greater amount of self-determination and freedom because they do not report to anyone. Therefore, through partnerships between government, universities and the business community, postgraduate students can be shaped into successful business owners. It is important to note that education attainment tends to lead to high productivity self-employment because self-employment develops into a more formal sector (Mohapatra et al. 2007).

Similarly, it is evident that there are significant differences in terms of field of study with regard to intention for self-employment among university students. Consistent with previous studies university students who enrolled for education were less interested in self-employment. One reason could be that these students chose this field because it may have been their intention to work for others (for example, schools, universities, colleges and so on) and not own a business. However, this is a concern since educators play an important role in a child's development. Those who are studying towards an education qualification should be encouraged to learn more about self-employment so that they can transfer this knowledge to their learners. Young people normally tend to follow their role models. Educators can become role models to their learners by engaging in self-employment activities. Self-employment can also take place on a part time basis to supplement their income. There is a need to encourage education students to change their attitude towards self-employment. This could be achieved by making self-employment an integral component of the education qualification. This may have a significant effect on the attitude of students who are studying education. Therefore, education students with positive attitude towards change are likely to view the creation of a business as an attractive career (Schwarz et al., 2009). This is so since entrepreneurial attitude is strongly associated with the intention to start a business.

Notwithstanding the fact that students who enrolled for education qualification showed lower self-employment intentions, it is encouraging to note that students from other fields of study manifest higher self-employment intentions. Notably, engineering students showed the highest mean score of ( $\bar{x} = 4.79$ ). This is a significant finding since engineering field have a comparatively high potential for growth and employment opportunities (Walters et al., 2013). In the past, engineering students have consistently showed high intentions to be self-employed (Wu and Wu, 2008) compared to other fields of study. The fact that students from other fields of study intend to be self-employed someday is a positive development for South Africa. This is so since the intentions form an important component of studying the process of business creation (Lee et al., 2011). More importantly, this has a potential

for the emergence of diverse businesses since prospective owners will come from different fields of study.

### **Managerial implications**

While it is acknowledged that not everyone should be self-employed, it would be wise to incorporate self-employment among different fields of study at universities in South Africa. A review of literature on self-employment indicates that the self-employed play a huge role in job creation as well as the economy. South Africa is urgently in need of more job opportunities to reduce the high levels of poverty among its citizens. The findings of this study is expected to guide universities to consider multidisciplinary degrees where self-employment/entrepreneurship is taught across all curricula. Put differently, self-employment should be a mandatory module for all qualifications. After all, entrepreneurship can be taught. While postgraduate qualifications are important, self-employment is equally important. Therefore, postgraduate students should also enhance their self-employment skills.

### **Conclusion**

Knowledge of university students' intentions with regard to self-employment is important, as self-employment is known to create job opportunities for the owner and for others. Furthermore, it is through self-employment that the economy of South Africa can grow which may lead to an upward economic mobility of citizens. The significant differences in terms of year of study and field of study with regard to self-employment intentions among university students suggests that the concept of self-employment should be introduced at an early stage of students' university life without discouraging them to pursue their studies in their respective fields. Students in the fields of study in which less interest in self-employment is manifested should be encouraged to engage with the concept of self-employment.

A common feature of most studies is limitations. This study is no exception. An important limitation was that convenience sampling was used to collect data. Hence, the generalisation of the results to the greater population of students should be approached with caution. Another limitation was that the instrument used was self-administered. Therefore, the student's perceptions are a self-report measure and may lack objectivity to a certain extent. Therefore, future studies may include other role players such as academics, employers and government officials among many. Future research could broaden the scope and include other institutions. While the sample size was consistent with similar studies, the views expressed by students in this study do not necessarily represent those of the total student population in the country. Therefore, it is recommended that future research could consider larger sample sizes or different research approaches which could lead to different results. Due to its multi-dimensional nature, self-employment is influenced by variety of factors. Therefore, in future studies other factors that were not included in this study

should be included. This may influence the perceptions of students could lead to different results.

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## WPLYW CZYNNIKÓW DEMOGRAFICZNYCH NA ZAMIERZENIA SAMOZATRUDNIENIA STUDENTÓW

**Streszczenie:** Utrzymująca się wysoka stopa bezrobocia wśród młodzieży, zwłaszcza absolwentów wyższych uczelni, ma miejsce w RPA. Większość dotychczasowych badań prowadzonych wśród studentów uczelni wyższych na temat samozatrudnienia koncentrowała się na takich kwestiach jak kolejność urodzenia, interakcje rodzinne, klasa społeczna i sytuacja ekonomiczna. Warto zauważyć, że w żadnym z tych badań nie zbadano możliwego związku między kierunkiem studiów a rokiem studiów a intencjami studentów uczelni wyższych na samozatrudnienie. W niniejszym badaniu zbadano zatem wpływ kierunku i roku studiów na intencje samozatrudnienia studentów uniwersytetów w RPA. Ankieta została przeprowadzona wśród studentów różnych kierunków studiów na czterech uniwersytetach w dwóch prowincjach RPA. Analiza wariancji (ANOVA) została wykorzystana do porównania percepcji studentów w zakresie kierunku i roku studiów w zakresie intencji samozatrudnienia. Stwierdzono istotne statystycznie różnice między studentami w zakresie kierunku i roku studiów w zakresie intencji podjęcia pracy na własny rachunek. Choć większość studentów wskazała, że zamierza pracować na własny rachunek, znaczna liczba studentów wykazała mniejsze zainteresowanie samozatrudnieniem jako karierą. Dlatego też rozsądne może być rozważenie przez uniwersytety stopni multidyscyplinarnych, które obejmują moduły samozatrudnienia/przedsiębiorczości.

**Słowa kluczowe:** intencje samozatrudnienia, kierunek, rok studiów, studenci uczelni

## 人口因素对大学生自雇意愿的影响

**摘要:** 南非正在经历青年，特别是大学毕业生的持续高失业率。以前的大多数研究都是在大学生中进行的关于自营职业的研究，重点是出生顺序、家庭互动、社会阶层和经济环境等。值得注意的是，这些研究都没有调查研究领域和学习年份之间对大学生自雇意愿的可能关系。因此，本研究调查了学习领域和学习年份对南非大学生自雇意愿的影响。在南非两个省的四所大学不同研究领域和年份的学生中进行了问卷调查。方差分析 (ANOVA) 用于比较学生对自雇意向的研究领域和年份的看法。在自雇意向方面，学生在研究领域和学习年份方面存在统计学上的显著差异。虽然大多数学生表示他们打算自雇，但相当多的学生对自雇作为一种职业表现出较少的兴趣。因此，大学考虑包括自雇/创业模块在内的多学科学位可能是明智的。

**关键词:** 自雇意向, 研究领域, 学年, 大学生