

The role of structured interventions in shaping graduate entrepreneurship

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ABSTRACT

The role of structured interventions in shaping graduate entrepreneurship is examined. Recognizing the need for more research in the area of graduate entrepreneurship and drawing on the reserves of Irish 3rd level institutions and, in particular, data available from the Irish Industrial Development Authority (IDA) on students who participated in the IDA Annual Student Enterprise Award 1984-1988, the groundwork is laid for assessing the productivity of enterprise development initiatives taken at the undergraduate level. An attempt is made to establish that education is a vital ingredient in the development of an entrepreneurial base. Higher education is a decided advantage in coping with the complexities and problems of modern business, and highly qualified graduates are a striking source of potential entrepreneurial talent..

FULL TEXT

Introduction

While there has been significant research on various aspects of entrepreneurship during the past decade, only a limited number of research studies have focused on the performance and results of entrepreneurship education. The need for research into this area is well documented (Hawkes 1981, Vesper 1985, and Rosa and McAlpine 1991). Questions which currently surface are; can entrepreneurship be taught? How can potential entrepreneurs be identified? Why should anyone choose to undertake the risks, financial burden and general disruption to social life which setting up and running one's own business entails? In particular, why should a graduate with a variety of career options open to him/her make this choice? These are some of the questions addressed in this paper.

A good idea is often the beginning of a good business. Young people are just as likely to come up with a good business idea as anyone else. In Ireland this potential has been recognised, an excellent scheme has been introduced by the Irish Development Authority (IDA) to help bring such ideas to fruition. The IDA Student Enterprise Award, instigated in 1984 and run in association with RTE Television (the Irish Broadcasting Authority) is open to all full-time undergraduates attending any third level educational institution. The purpose of the scheme is to stimulate entrepreneurial spirit among young people. It is about giving students some hard exposure to the world of business by providing them with an opportunity to demonstrate their ability to formulate a business plan and develop a business idea.

Recognising the need for more research in the area of graduate entrepreneurship and drawing on the reserves of Irish third level institutions and, in particular, data available from the Irish Industrial Development Authority (IDA) on students who participated in the IDA Annual Student Enterprise Award 1984-1988, this study lays the groundwork for assessing the productivity of enterprise development initiatives taken at the undergraduate level. The research project seeks to establish that education is a vital ingredient in the development of an entrepreneurial base. Higher education is a decided advantage in coping with the complexities and problems of modern business. Highly qualified graduates are a striking source of potential entrepreneurial talent. There is a need to investigate the measures that promote the emergence of graduate entrepreneurs in greater numbers.

The Literature on Graduate Entrepreneurship

Jackson and Vitberg (1987) report that business college graduates and students are increasingly disenchanted with career

prospects as organisational employees. Intense competition, cost cutting pressures, and acquisitions and takeovers, have resulted in large company restructuring. This has undermined traditional values such as employee loyalty, security and ownership of results. Consequently, more and more business students view the possibility of starting and operating their own business as a viable alternative to being employed in an established company (Duffy and Stevenson 1984). Recent surveys support this view. Scott and Twomey (1988), based on data collected from English students, reported that 25% had a business idea and that 41% aspired to self employment. Figures by Harrison and Hart (1992) revealed that 47% of a sample of Northern Ireland students expressed a positive desire to run their own business. Curran and Blackburn (1989) report similar findings from another survey of English students. Attitudes towards enterprise and small business are positive. Karr (1988) reports that 46% of college students consider a "business of one's own" an excellent way to get ahead. Sandholtz (1990) reveals that of 1,000 MBA students surveyed at the University of Pittsburgh, 44% wanted to become an independent entrepreneur. Hills and Welsh (1986) in a survey of almost 2,000 students found that 80% expressed an interest in taking one or more courses in entrepreneurship. This desire for entrepreneurial careers is reflected in the growing number of universities and colleges that have added courses and programmes on entrepreneurship to their business curriculum.

Brenner et al (1991) found in their study of 237 graduates in the U.S. that business graduates generally perceived business ownership in a positive light. However, the survey revealed an inconsistency between the graduates' attitudes towards owning and operating their own business and their intentions towards pursuing such a career. When they were given complete freedom of choice, 55% preferred operating their own business. When they were asked their most likely choice, considering their actual situation and constraints upon their option, only 5% indicated that they would probably choose to operate their own business. On this point, Katz (1990) has emphasised that much more attention should be given to understanding the process of entrepreneurial follow-through, that is translating attitudes into actions.

Statistics show that in the U.S. and Japan between 2% and 2.5% of graduates start their own businesses immediately after graduation (Brown 1990). In the U.K. the number of graduates entering self-employment has been relatively stable at just over 1% in recent years (British Universities First Destination Statistics). Rosa and McAlpine (1991) found that as graduates mature the incidence of self-employment and small business ownership increases, and that 4% of those who graduated 1982-1985 were self-employed. In Ireland the annual "First Destination of Award Recipients in Higher Education" does not include a category for self-employment, so no comparative statistics exist.

Entrepreneurship Education Initiatives

Since the mid 1980s several programmes have been developed and implemented in Britain with the objective of encouraging students to set-up their own businesses. Two such national initiatives have impacted the development and growth of graduate entrepreneurship in Britain.

The Graduate Enterprise Programme

In the U.K. there is a special start-up programme for graduates, the Graduate Enterprise Programme (GEP). The programme was initiated in Scotland in 1983 and then developed and launched in England in 1984. The purpose of the GEP is to assist first time graduates with business ideas to start their own businesses. The programme began with major awareness seminars at major English universities and polytechnics and culminated in a two day selection and training weekend for all those interested in starting a business. Participants were provided with support from academic counsellors completing business plans. The subsequent training and support programme comprised 5 individual weeks training at Management Schools, interspaced with 11 non-residential weeks of market research funded by a grant. Brown (1990) in his study attempts to evaluate the first three years of the GEP from 1985-1987. Of the 125 participants between one-half to two thirds are still in business. The main conclusion of the research was that 90% of the graduates would have deferred their entrepreneurial activities for at least five years without the help of the GEP programme.

The Enterprise in Higher Education Programme

The Enterprise in Higher Education (EHE) initiative was launched in 1987 by the Secretary of State for Employment. The programme was designed to encourage the development of qualities of enterprise amongst those seeking higher education qualifications in England, Scotland, Wales and Northern Ireland. The broad aims of the initiative are that every undergraduate student should be provided with the opportunity to develop enterprise competencies as an integral part of

their undergraduate programme. Implementation of this Government initiative began in 1988 when institutions, universities and polytechnics were invited to join. Successful bidders receive funding for five years and at present there are fifty six Higher Education Institutions operating EHE contracts. (See IBAR, 1993.)

The Enterprise Development Programme

In Ireland the Enterprise Development Programme commenced in 1990. This programme's aim is to equip young graduates with the necessary entrepreneurial skills to set up, run and develop their own businesses. The programme administered by the Dublin Institute of Technology is designed to support young graduates for one year to research and develop their business idea. The businesses entered in the programme are knowledge-based projects, innovative in nature and have job-creation and export-potential. Training takes the form of hands-on experience in carrying out product development, marketing and financial studies and the development of the business to a commercial stage. Tuition takes place in 12 modules of 2-3 days each month. Each trainee is assigned an individual supervisor, has an allowance of L85 per week and also funding towards development costs. The overall success of the programme can be judged by the fact that 55 companies out of 70 start-ups are currently trading and 219 new jobs have been created.

The Research

In 1984 the principal industrial promotion agency in Ireland, the IDA introduced an Annual Student Enterprise Award. The programme is designed to provide undergraduate students with the opportunity to demonstrate their ability to set up a business venture of their own. The objective of the programme is to encourage students to examine the option of self employment as a viable career alternative and to realise that ideas can become businesses. Students are encouraged, while still at college, to identify a business idea, research it for viability and market potential, prepare a formal business plan and defend it through a series of assessments and live confrontations as would happen with any real business proposal. The two key conditions for participation are that the proposal be either a manufacturing idea or an internationally traded service idea such as software development, international financial services, or a research and development project. Interdisciplinary teams, ideally three or four students, are encouraged to participate. Professionals from the IDA and the business world judge the projects, first at a regional level, then at a national final which is televised live by Radio Telefis Eireann, (the Irish Broadcasting Authority). To date more than 5,000 young people from Irish universities and colleges have submitted business plans for new venture proposals.

Research Objectives

The research reported in this paper was an attempt to evaluate the productivity of the IDA Student Enterprise Award in stimulating graduate entrepreneurship. The survey conducted examined the impact, effectiveness and usefulness of entrepreneurship programmes in enabling and encouraging graduates to start their own business.

Research Design

The data collection method used was a postal survey to a random sample of graduates who had participated in this enterprise development initiative during their third level education. In order to ensure that the results of the survey were meaningful, a control group of randomly selected graduates who were not exposed to enterprise development initiatives, but who had graduated during the same time period, were also surveyed. The rationale for selecting a control group was that students who were not made aware of the process of starting and managing an enterprise would be expected to have fewer aspirations to setting up a business of their own.

Two structured mail questionnaires were developed. The first questionnaire was sent to a sample of 419 graduates who had participated in the IDA Student Enterprise Award (the Interest Group). This questionnaire was developed in three sections: "Education and Enterprise Courses", "Business Experience", and "Personal and Family Background". The second questionnaire, which was sent to a sample of 419 graduates who had not participated in any enterprise development initiatives (the Control Group), was identical to the first questionnaire with the exception of six questions which were directly related to undergraduate enterprise development courses and to the IDA Student Enterprise Award. The samples selected graduated from college during the five year period 1984-1988, 66 were business/commerce graduates, 34% were engineering/science graduates, 70% were male and 30% were female in both groups. The objective of selecting an interest group and a control group was to attempt to isolate any significant differences that occurred between the two populations in terms of predisposition towards entrepreneurship. The students selected for the sample were at college during the five

year period 1984-1988.

Response Rates

A total of 121 valid responses were received from the interest group and 119 valid responses from the second sample, a response rate of 28.5%. However, there were some incomplete responses (i.e. not all 240 respondents answered all the questions). The results were analysed through comparisons between the characteristics of the interest group and the control group. Chi-square analysis was used to test the statistical difference of apparent similarities and differences in the categorical data. The Kolmogorov Smirnov two-sample test was used on the grouped interval data to test if there was a significant difference between the two groups. The results were compared to the findings of previous studies. In view of the difference in survey methods and sampling frames, the limitations of such comparisons should be borne in mind. This research is the first part of a longitudinal study. It selects the interest group and the control group that will be revisited in order to determine the graduates' employment status and examine any further entrepreneurial activity.

Findings

Education and Qualifications

The first part of the questionnaire, was designed to reveal a profile of the respondents' education and qualifications. The answers allowed classification into (i) graduates of university, or regional technical colleges and other institutions, (ii) primary qualification, and (iii) further qualifications. An analysis of the profile of the respondents indicated that 56% (n = 135) of the overall responses were from graduates of universities and 44% (n = 105) from graduates of regional technical colleges and other institutions of higher education. The total number of respondents holding a degree qualification was 61%, a diploma qualification was 28% and a certificate qualification was 11%. When questioned on further or post-graduate qualifications 26% (n = 63) of the total sample completed a postgraduate course with 7% (n = 16) obtaining a Masters degree.

IDA Student Enterprise Award and Entrepreneurship Courses

The next set of questions dealt specifically with graduate participation in the IDA Student Enterprise Award and other entrepreneurship programmes. The interest group was asked to outline the entrepreneurship courses completed at both the undergraduate and postgraduate level. To explore how graduates felt about the effect of these programmes on their career direction and on the overall acquisition of entrepreneurial skills, a number of attitudinal questions were posed. These questions helped identify the impact and the limitations of these courses. The control group was questioned about any postgraduate exposure to entrepreneurship. As is indicated in Table 1, while 9.3% (n = 11) of the interest group participated in an entrepreneurship/start your own business course after leaving college, only one respondent from the control group took such a course. (Table 1 omitted) The overall statistical result suggests that students exposed to undergraduate enterprise programmes were more likely to partake in similar courses upon leaving college.

Whether the undergraduate enterprise initiative taken by the interest group had an effect on graduates' subsequent career decision was explored. While the majority of the respondents 55% (n = 41), stated there was "little" or "no effect" a comparatively high proportion 45% (n = 33) responded positively, with 11% (n = 8) stating that the IDA Student Enterprise Award had a "very important" effect on their career choice. It should be noted here, that four students volunteered the information that in every employment interview the IDA Student Enterprise Award had been singled out for discussion which resulted in a deep interest and appreciation of the Award scheme being expressed. The Kolmogorov-Smirnov test indicates that there was no significant difference in the views of business/commerce students and science/engineering students with regard to the effect of the IDA entrepreneurship initiative on their career decision. The respondents in the interest group were asked to indicate if there were any areas of study relating to entrepreneurship where more emphasis was needed at the undergraduate level. Overall 60% (n = 44) replied in the affirmative with 63% (n = 35) of business graduates feeling that these courses could be improved; 50% (n = 9) of science/engineering graduates had similar views. The Chi-square test indicates that there was no statistical difference between the opinions of both groups in terms of entrepreneurship course improvements. When asked specifically about the areas requiring more emphasis in entrepreneurship courses, the development of general enterprise management skills was the area of study highlighted by the majority of respondents. Improvement in knowledge of the other functional areas of finance, marketing, production and general administration were more or less evenly distributed among the remainder of respondents. After general

management, science and engineering students highlighted marketing/sales as an area that required more attention in these courses. Table 4 indicates how the respondents in the interest group perceived the prime purpose of the IDA Student Enterprise Award. (Table 4 omitted) Is it a mechanism for (i) giving students the opportunity to evaluate a business idea and develop a project which could subsequently be undertaken as a viable business concern? Alternatively, is the Award primarily designed to (ii) develop the skills required to set up a business, skills such as teamwork, planning, marketing and finance? Respondents were asked to rank the above two criteria in terms of importance. The majority of respondents 83% (n = 98) felt that developing the necessary skills to set up and run a business was the prime aim of the IDA Student Enterprise Award. This result reflects the fact that generally college students do not see themselves setting up their own businesses immediately on graduation. The remaining 17% (n = 20) of respondents indicated that the IDA Award was an opportunity to develop a project for the start-up of a business venture. This begs the question: is it from this group our future entrepreneurs will emerge?

Graduates in Employment

While the first part of the questionnaire established the perceptions and views of the graduates with regard to entrepreneurship courses and the IDA Student Enterprise Award, the second part of the questionnaire explored details of the respondents' current employment. The results indicated in Tables 5-9 deal only with graduates who were in employment. (Tables 5-9 omitted) Respondents who were self-employed are treated later in this section.

In order to isolate any significant differences between the two groups in terms of predisposition towards entrepreneurship, a series of questions were asked concerning: the employment trends of the two populations, respondents' expectations to the probability of someday running their own business, the factors that militate against entrepreneurship, and any involvement in family or part-time business activity. An interesting result occurs here. Twice the number (n = 6) of graduates who have participated in an enterprise development initiative have started their own business compared to the number (n = 3) of business start-ups among graduates who have not been exposed to these programmes. The entrepreneurial employment status was low by comparison with the total in both groups. The majority of the respondents chose a career in employment which suggests a strong attitudinal orientation towards employment. Since the differences between the categories are small, they were not statistically significant overall. The finding here indicates that 3.75% of the total sample were self-employed. When respondents were asked to indicate if they were employed in their family business, a difference occurred between the two groups with 6.5% (n = 7) of the interest group and only 0.9% (n = 1) of the control group being employed in this business. The Chi-square test results indicate that there was a significant difference between the two groups and suggests that respondents in the interest group entered family businesses on a greater scale than their counterparts in the control group. The question of the probability of running a business was used to establish respondents' feelings and motivation towards entrepreneurship. With a score of 5 indicating "highly probable responses" and a score of 1 "no probability", a weighted score of 3.58 was achieved by the interest group and a score of 2.97 by the control group. A statistically significant difference occurred between the two groups. This finding suggests that the interest group were more predisposed to entrepreneurship than the control group.

Considering the constraints facing graduates who aspire to self-employment, the graduates who were in employment were asked: what were the factors that they believed militated against entrepreneurship. Respondents were asked to reply on a five point scale their perception of the criteria that hinder or discourage entrepreneurship. Table 8 summarises the responses. (Table 8 omitted) When examining the responses to job satisfaction the control group scored highest (3.26) in the consideration that this was an important factor. The result here seems to indicate that this group were less prepared than the interest group (3.09) to explore the career alternative of self-employment. With regard to perceived business opportunity the control group scored higher (3.30 v 3.13) indicating again more caution than the interest group. Regarding lack of finance there was no difference between the groups. Lack of relevant experience featured higher in the interest group (3.41 v 3.31). This may be explained by this groups' awareness that experience, as taught on enterprise courses, is a prerequisite to successful start-ups. When questioned on the risk involved the control group scored the highest (3.40 v 2.95) indicating that this group were most risk averse, a feature characteristic of non-entrepreneurs. The constraints of family responsibilities were not considered important by either group. Overall lack of finance was considered the greatest militating factor by both populations. A distinguishing feature of the two groups was the tendency of the interest group to

ascribe more relative importance to an intrinsic factor such as experience and less to the risk involved. By comparison, the control group appeared less concerned with experience and attach more importance to the extrinsic factor risk. Another statistically significant finding of the survey was the high proportion of the interest group, 15% (n = 14), who operated a part-time business since graduation versus only 5% (n = 6) of the control group.

Interestingly, all the activities were in the service sector with the exception of 25% (n = 5) respondents who were involved in farming. In depth studies of new venture creation reveals that entrepreneurship is a process which generally allows many variations of a potential venture.

Graduate Entrepreneur Start-ups

This section of the paper provides information on the business ventures initiated by graduate entrepreneurs. It examines the type of business, the number of employees, the turnover, and it also gives a profile of the graduate entrepreneur. Factors that encouraged respondents to start their ventures are also detailed. Table 10 and 11 reveal perhaps the most interesting results of the survey. (Table 10 and 11 omitted) Although the figures are small, it must be noted that the evidence suggests that not only was the interest group starting business at twice the rate of the control group but also a third of them were starting manufacturing ventures and trading internationally as opposed to none in the control group. An examination of the mean distributions of the two groups with respect to age, number of years in business, number of employees and turnover reveals a profile of the new breed, the graduate entrepreneur. He/she is younger than their counterparts in the control group with the former having an average age of 25.3 years compared to 30. He/she has been in business for an average of 2.5 years, indicating an age of 22.3 years when starting the business as opposed to 29 years, employs 9.5 persons in comparison to 1.6 persons and has a mean turnover of L540,000 per annum as opposed to L74,000 per annum. The only area with less favourable results occurred in the average salary of these young entrepreneurs--L15,000--compared to L19,000. Taking into consideration their age this salary differential would not seem to be a "push" factor in terms of the pursuit of an entrepreneurial career path.

Factors That Encourage Entrepreneurship

Respondents who had established their own enterprises were asked to rank, on a five-point scale, from "very important" to "of no importance", the factors which prompted their decision to become entrepreneurs. The results presented in Table 12 are scored on a five-point scale of relative importance where five is assigned to the highest scored factor and one to the lowest score. (Table 12 omitted) The most obvious finding was that the perception of a suitable business opportunity represented the most important stimulus factor for both groups of respondents who had started a business. Particularly interesting was the response of the interest group to the effect of the entrepreneurship course they had completed. All considered the course to be an important contributing factor, rating it second to their decision to start-up an enterprise. The control group not having participated in such a course perceived it to be the least important factor. Frustration with the existing job was seen as the second most important factor by the control group, with low risk third. The interest group perceived job frustration and availability of venture capital equally important in third place in the ratings. For these, low risk and discovery of a potential partner overall rated further down the scale. A somewhat similar pattern, for the remainder of the data, presents itself with the exception of failure of the company in which employed. This was seen by one respondent in the control group as being extremely important. Both populations added a number of other reasons for setting up their own businesses. The interest group cited the challenge, the experience, the money, working for oneself, their own ability and talent, as the factors that motivated their start-ups. One respondent in this group indicated unemployment as his reason for going it alone. Scott (1988) in his survey identified the effects of unemployment as a triggering factor for aspirations to entrepreneurship. A desire to fulfil a lifelong ambition to be self-employed was given as the reason by two respondents in the control group. The third indicated that he was dissatisfied with his previous employment and with the PAYE tax system and therefore chose self-employment.

What is interesting in these findings is that overall 78% of these entrepreneurs stated positive contributing factors, such as the desire to be self-employed, identification of a business opportunity, and the entrepreneurship course, as their reasons for start-up, while only two respondents (22%) started their businesses because of negative situational factors as highlighted in Shapero's (1975) study. Table 13 indicates that there was little difference in the type of third level institution the respondents attended. (Table 13 omitted) Graduate entrepreneurs were emerging from both universities and regional

technical colleges at approximately the same rate. The qualifications and specialisms of the respondents indicate that overall 78% (n = 7) had a business/commerce background and 23% (n = 2) a science/engineering qualification. Degree graduates accounted for 56% (n = 5) of the start-ups. In terms of personal variables graduate entrepreneurs were predominately male 78% (n = 7). What is notable in the analysis is the high proportion of the interest group who were single as opposed to the control group where 100% were married. This difference, of course, may be attributed to the age differential between the two groups. In line with a number of previous studies McClelland (1965), Petrof (1981), a third of the graduate entrepreneurs in the interest group were first born.

Discussion and Conclusions

The resolve to carry out the present research evolved from the belief that enterprise initiatives introduced during third level education stimulate graduate entrepreneurship. The tentative evidence from this survey suggests that this hypothesis is well founded. It appears that creating an awareness of the enterprising process and developing and transferring knowledge about business formation can stimulate graduate entrepreneurship. This research is an exploratory study and clearly the question must be asked, do "entrepreneurial students" self select the entrepreneurship options and programmes while at college? Are entrepreneurial attributes the cause of a favourable disposition towards these courses? On the other hand can entrepreneurship really be taught? Is graduate entrepreneurial activity the effect or result of these programmes. A review of literature suggests that the entrepreneurial role can be culturally and experientially acquired and is influenced by education and training (Gibb 1987). Ryle (1963) argues concerning the importance of education in terms of results and behaviours, in particular in reinforcing innovation, creativity, flexibility, capability to respond to widely different situations, autonomy, self-direction and self-expression.

It has been stated by Scott (1988) that the long-term supply of well educated and well qualified entrepreneurs is essential to a strong modern economy. Running fast-growing businesses, especially those with a large technological component, is a complex operation. Considerable knowledge is required to cope with these problems. These views are reinforced by a recent study of small firm growth by Davidsson (1989) who demonstrated a positive relationship between higher education, ability and business growth.

The study shows that the majority of the respondents chose a career in employment but there is evidence that the enterprise initiative taken by the interest group had an effect on the graduates' subsequent career decision. The results suggest that a higher proportion of the interest group will start their own business.

The IDA Student Enterprise Award is perceived by the vast majority of those who participated in the competition, as an effective way of developing the skills necessary to become a successful entrepreneur. These skills include problem solving, creativity, persuasiveness, planning, negotiating and decision making (Gibb 1987). More emphasis on general enterprise management skills is an area requiring attention in entrepreneurship curricula, according to the survey results. These functions might include developing formal business plans, analysing opportunities, acquiring resources, and working towards goals (Bird 1988).

The number of graduates who are involved in part-time business activities is worth noting. Just as a managerial career is often a progression of jobs and positions, an entrepreneurial career is usually a progression of ventures or the creation of new ventures within the existing venture (Ronstadt 1985). The phenomenon, labelled the Corridor Principle, proffers that most entrepreneurs will see corridors leading to new venture opportunities.

Overall the percentage of graduate start-ups is low. However, it is interesting to note that though the figures are small, those who had taken enterprise initiatives were starting businesses at a higher rate than their peers, they were starting them at a younger age, were employing more people, had a higher turnover per annum and were establishing manufacturing as well as services businesses. Additionally they were involved in family and part-time businesses on a greater scale than their counterparts who were not involved in enterprise initiatives.

From the results it appears that the role of the education system in influencing entrepreneurship is strong. Kirby (1989) suggests that to develop more entrepreneurial graduates requires an enterprising approach to learning, where students deal with ambiguity and complexity and develop all the skills necessary to manage a business. This exploratory study provides initial evidence that initiatives such as the IDA Student Enterprise Award appear to be stimulating the level of graduate entrepreneurship country-wide. These courses, it would appear, are contributing in the graduate market sector to

what Blythe, Granger and Stanworth (1989) call the "fast track" into business.

Notes

1. The Chi-square analysis involves (a) calculating a statistic which summarises the differences between two sets of categorical data, (b) determining the degrees of freedom associated with the data set, and (c) using those two values, and a table of the Chi-square distribution, to determine if the calculated Chi-square statistic falls within the range which could easily have occurred by chance due to sampling variation. If it does not, the differences between the two sets of data are judged to be significant.
2. The Kolmogorov-Smirnov Two Sample test deals exclusively with the maximum difference in cumulative relative frequency in grouped interval data. If the maximum difference D is large the difference is considered likely to be a real one, and the two sets of data are judged to have come from two different populations.

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DETAILS

Subject:	Variables; Roles; Regression analysis; Questionnaires; Higher education; Comparative studies; Small business; Careers; Startups; Business ownership; Entrepreneurs; Self employment; Business plans; Entrepreneurship education; Product development; Career development planning; College students; Colleges & universities
Business indexing term:	Subject: Small business Careers Startups Business ownership Entrepreneurs Self employment Business plans Entrepreneurship education Product development Career development planning Colleges & universities; Industry: 61131 : Colleges, Universities, and Professional Schools
Location:	Ireland
Classification:	95 20: Small businesses; 9175: Western Europe; 9130: Experimental/theoretical treatment; 8306: Schools & educational services; 6200: Training & development; 61131: Colleges, Universities, and Professional Schools
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