Towards the Development of Future Sustainable Sports Entrepreneurs: An Asymmetric Approach of the Sports Sciences Sustainable Entrepreneurial Intentions in Algeria

نحو تطوير ريادة الأعمال الرياضية المستدامة في المستقبل: مقاربة غير متماثلة لنوايا في الجزائر ريادة الأعمال المستدامة في العلوم الرياضية

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Abstract:
This study discusses the importance of developing future sustainable sports entrepreneurs through an asymmetric approach that integrates sports sciences and sustainable entrepreneurship. The sports industry has a crucial role to play in driving positive environmental and social change, making it essential to nurture the development of future sports entrepreneurs committed to sustainable practices. The study employed a mixed-methods approach to explore the viability of the asymmetric model, finding a statistically significant positive relationship between exposure to the approach and Algerian students' intent to pursue sustainable sports ventures. While the asymmetric approach presents a promising framework, it also faces challenges and limitations, requiring ongoing exploration and refinement to unlock the full potential of sustainable sports entrepreneurship.
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1. Introduction :

The rate of increase in sport entrepreneurship today indicates that sports science graduates have been creating more opportunities to utilize their knowledge and skills. Sports science is described as a developing discipline that focuses on how exercise and physical activity can significantly influence an individual's health and quality of life. This includes the effects of exercise in the prevention and rehabilitation of chronic diseases, and the use of exercise as a means to enhance health and fitness, and to improve athletic performance. These graduates have chosen to exploit the new market of health by being a consultant or an entrepreneur. It is also aligned with the health and wellness industry that is flourishing today. However, the process of being an entrepreneur is not easy due to the competitive nature of the industry. They need to improve their product quality so it can survive in the market and get the attention of the consumer. In order to do this, entrepreneurs, particularly those who are novice, must have strong intentions to be successful in the long term and readiness to take action to do everything it takes to reach their objectives. Intention is viewed as a determinant that has direct and positive effects on efforts to create a venture and the actual establishment of the venture.

2. Theoretical Framework

The theoretical framework that supports the development of this research is embedded within the realms of the theory of planned behaviour and the Ajzen-Fishbein model of understanding behavioural motivation and control. The theory of planned behaviour has been identified as a useful tool to predict behavioural intention across a wide range of domains and has been widely used in entrepreneurship research. The theory postulates that individuals' proximal antecedents of intention and behaviours are determined by the individuals' attitudes toward the behaviour, subjective norms, and perceived behaviour control. More recently, the TPB has shown value in extending the model with additional constructs to improve prediction and to increase understanding in specific contexts like entrepreneurship. In an article discussing the need for more general entrepreneurship theory testing in specific contexts, it is suggested that adding context-specific variables

has the potential to make the theory more meaningful and to capture idiosyncratic features of the entrepreneurial process in each context. The theory of planned behaviour will form the basis for the research exploring the intentions of sports sciences students towards entrepreneurship, and its additional extension with context-specific variables fits well with the notion that entrepreneurial initiatives in the field can be idiosyncratic and that research in sports entrepreneurship is in need of theory testing that is more focused. In the context of understanding sustainable entrepreneurial intentions, the Ajzen-Fishbein model has been suggested as a most viable model over others. It is suggested that intentions towards environmentally beneficial behaviour aim to produce favourable outcomes, and that intention is a function of attitude, subjective norm, and perceived behaviour control. This makes it a simpler framework than the theory of planned behaviour, but it is more appropriate given that understanding sustainable entrepreneurship has a specific focus on behaviour that produces desirable outcomes for the environment and society. Both TPB and the AfF model have a substantial body of literature providing support for strong validity and reliability in predicting intentions and behaviours, so the variables and their measurements are likely to be strong.

Sports Sciences and Sustainable Entrepreneurship

The studies on entrepreneurship are often too general when it comes to the process of creating a new business, especially in the sports sciences field, which might be different from other fields. In order to accommodate the process of new business creation in the sports sciences field, the measurement of entrepreneurship also needs to be specific to the field. "Being a sports scientist and having an interest in the field, I would like to have my own private consulting company in sport science, providing services for coaches and athletes ranging from nutrition, sport psychology, sport physiology, and fitness testing; promoting healthcare and excellence in performance through the application of sport science knowledge. Therefore, the measurement of sports science entrepreneurship would be very relevant to me". This statement, held by Koh and his colleagues, suggests that specific entrepreneurship in sports sciences can be defined by setting up one's

own business, a new independent division, a new position, and increasing job scope related to the sports science field. Entrepreneurial Intention is an individual's plan in the future for a specific behavior. This process directly or indirectly involves decision making to be implemented. Continuous and persistent behavior will form an act of entrepreneurship. The cognitive process model by Krueger and Kickul (2006) suggests that Entrepreneurial Intention is a starting point to implement a series of behaviours which ends with a new business. This specific form of entrepreneurship needs an intention that will become an inner drive for an individual to take action and make sure the results of this behavior are satisfying. Inner drive or motivation among sports science students today is one of the targets for measuring Sports Science Entrepreneurship.

Asymmetric Approach in Sustainable Entrepreneurial Intentions

The Ajzen's Theory of Planned Behavior (TPB) is eminently the most influential and well-established social-cognitive theoretical framework in understanding entrepreneurship intentions. TPB developed from the Theory of Reasoned Action (TRA), initiated by Ajzen and Fishbein (1980), which postulated a causal link from beliefs, attitude, subjective norms, and perceived behavioral control to behavioral intentions and actual behaviors. TPB, as an extended version of TRA, takes into account the lack of complete volitional control to perform the behavior, and acknowledges that sometimes things do not always go as planned. This model hypothesized that perceived behavioral control would directly and positively predict intentions, and to some extent behavior, but the effect of behavioral control is not always stronger than intention, and it depends on how much actual control there is in entrepreneurship. Then, this model will be employed in the development of sustainable entrepreneurship intentions for sports science students, in order to understand the complexity of entrepreneurship actions and to investigate the possibility of volitional control of entrepreneurship action and behavior among the students.

On the other hand, we seek to explore an alternative approach for understanding entrepreneurship behaviour and actions, which do not always go exactly as planned. Several entrepreneurship studies have

criticized the TPB/TRA model for making too many assumptions about rationality, assuming a strong link between intentions and behaviour, and assuming active performance of the behaviour. In the context of planned sustainability, which requires entrepreneurs to consider the environmental and social impacts of their actions, which are irrelevant to the traditional pursuit of financial success and personal wealth, and in Takahashi and Smutkupt's (2011) article, Smutkupt's (2005) study found the Asymmetric Model and Effectuation Theory. This theory states that the effectual approach of the causation theory and planning in entrepreneurial action is more realistic for informal new ventures with ambiguous goals, where there is a lack of complete information regarding the actions and environment of the desired goals, and there are multiple possible causal paths to reaching a particular end state. This is related to the planning situation for entrepreneurs who often work under uncertain and turbulent conditions, and hindsight will always be better than foresight in certain actions. Hindsight is defined as the understanding of a situation or event only after it has happened or developed. In other words, on some occasions, entrepreneurs will not have complete control over the actions and the situation that occurs cannot be controlled, so they need to take a new path in achieving the end state due to the failure of prior trials, and this assumes effectual behaviors. In an environmental condition that has an uncertain future and is likely unpredictable, entrepreneurs cannot always commit to particular actions based on the current situation. This Causation and Effectuation comparison is very similar to the contrast of planned and emergent strategies, and the first posture of the Asymmetric Causation Model is a good alternative for understanding entrepreneurship behaviour and actions in environments with uncertain and turbulent conditions. This is the first time the Asymmetric Causation Model is used to understand the intention of sustainable entrepreneurship, and it is not known to others how it compares to other alternative approaches for understanding sustainability actions and behaviors. This is a very interesting result to understand, and the author intends to explore more about the Asymmetric Model compared to other alternative approaches for understanding sustainable entrepreneurship actions and behaviors in the future.

Methodology

Methodology refers to a set of systems and techniques to ensure that an investigation is conducted properly and successfully. It is a plan that is designed to achieve results and fulfill the purpose of the research. The methodology is considered as a guide for conducting the research. This study aims to find an effective way to conduct research on asymmetric approaches in sustainable entrepreneurial intentions among participants of Aboubekr BELKAID Tlemcen university Algeria undergraduates. We are considering whether quantitative or qualitative methods would be most suitable for our study. For several years, we have hypothesized that the method set by the university to determine the development of Algerian undergraduates is not useful and has a minimal impact on their characters.

Qualitative methods are likely to be more suitable for our study as they can provide a deeper understanding of the respondents' thoughts and perceptions on how they can become entrepreneurs. In-depth interviews or focus group discussions would be the best options for data collection. To obtain detailed information about the nature of asymmetric approaches, we may include both new students and alumni from our university. In-depth interviews will provide a lot of information about how they perceive the variables of the study and how these variables are related to their entrepreneurial intentions. A focus group discussion will allow us to compare the views of current students and alumni and analyze the differences in their perspectives on the same variables.

Research Design

Qualitative approach is being used in this research in order to gain a deep understanding and interpretation of social phenomena, focusing on sustainable entrepreneurship within sports sciences. Because of the sustainable intention regarding entrepreneurship in sports sciences, this study also adopts the paradigm of pragmatism, which refers to practical thinking and acting related to logical consequences and problem solving. We choose this paradigm because it best proves theories about

sustainable entrepreneurship, which is influenced by individuals' attitudes and self-beliefs.

Then, a case study was chosen as a suitable method for investigating the sustainable intention in entrepreneurship among sports sciences students. According to Stake (1995), a case study is an intensive study of a single unit with the aim to generalize across a larger set of units. It has been commonly associated with qualitative research but is also widely used to describe a rich, in-depth study of a single person or group of people.

This research was conducted among final year students in the Faculty of Sports Sciences and Coaching at Tlemcen University, Algeria. We chose final year students as the unit in this case study because at this stage, students already have an intention to enter the job market and some will engage in entrepreneurship activities. This is a criterion sampling strategy for choosing an information-rich case. By involving students from various sports science programs such as physical education, recreation and sports, sports management, and coaching, we will obtain information about the general sustainable intentions in sports science to become an entrepreneur.

Data Collection

A quantitative data collection method was employed for this study. Data were collected through a survey using a questionnaire. At first, we obtained the population list from the Registrar's Office, University of Tlemcen. The population of this study was the undergraduates of the Faculty of Sports Science and Coaching, University of Tlemcen. There were 894 students registered in the faculty. Then, self-administered questionnaires were distributed to the respondents. However, the process of distributing and collecting the questionnaires took several weeks.

Before the distribution of the questionnaires, a briefing was given to the students at the end of their classes to explain the purpose of the study and to increase the response rate. The undergraduates were selected as the sample for this study because these students consist of various

ethnic groups in Algeria, both genders and those specializing in 4 different courses namely, Bachelor of Science (Sports Science), Bachelor of Physical Education, Bachelor of Health Sciences and Bachelor of Coaching Sciences.

A language translation process was also considered since there are racial disparities and English language proficiency levels among these students. This is because some students are from rural areas and have a poor command of the English language. A language translation process ensured that the students who had lower English proficiency are able to understand the item statements in the questionnaire. We used the Arabic language as the medium of translation since it is the national language of Algeria and most Algerians understand this language. The students from the faculty stated that expert translators could provide better task accomplishment. As a result, some undergraduate students who are academically excellent and possess good English proficiency were selected as translators in this translation process. This language translation process took about 10 days.

After the translation, a process of back translation was carried out to make sure every item was accurately translated. This is because back translation is an effective method to fish out potential errors in the translation process. Two professional translators, who are lecturers from the Language Department, University of Tlemcen agreed to help in the back translation task. Due to the cooperation between the expert translators and the researchers, the translation of the questionnaire was successfully completed without any major problems.

Then, we pre-tested the questionnaire among 50 undergraduates from the Faculty of Sports Science and Coaching to check the appropriateness of the items in the questionnaire. Some respondents from the pre-test suggested that there were a few items contained words that are difficult to understand and thus the translations seemed inaccurate. However, no major concerns were raised from the respondents and the questionnaire was acceptable. After that, we revised the questionnaires according to the feedback received from the pre-test to ensure the understanding and clarity of the items. Then, the final version of the questionnaire was ready for distribution to the

respondents. This whole preparation process for the questionnaires took nearly 3 months.

Data Analysis

The aim of this study is to understand the entrepreneurial intentions of sports scientists towards sustainable entrepreneurship. The Theory of Planned Behaviour (TPB) has been chosen as the foundation for our research framework. This is a model that has long been used in entrepreneurship research to understand the intentions of individuals to become entrepreneurs. However, to enhance the model, an additional component of 'awareness and understanding of entrepreneurship' has been proposed, as discussed in the introduction of this paper.

After extensive searching, it became apparent to the researchers that no such scale existed to measure the sustainability of such intentions in entrepreneurship. Therefore, the first task in the research method was to produce a scale to measure sustainable entrepreneurial intentions in the context of sports scientists. An extensive mixed method approach of interviews, focus groups, and a thorough review of relevant literature were used to produce such a scale.

Due to the qualitative nature of producing the scale, data and comments are very vast. This led to the data being analyzed and reported in a longer paper outside of the confines of this particular study.

Findings and Discussion

Entrepreneurship literature in this study explains that intention is the best predictor of entrepreneurial behaviour. Investigating intention rather than the actuality of start-up or running businesses is advantageous in terms of resources, time, and even completely relevant for nascent entrepreneurs. While intention towards entrepreneurship among business and management students has been extensively researched, there is very limited understanding of entrepreneurial intention within the sport industry, particularly from individuals educated in sport and exercise sciences. It is acknowledged that cognition and rational decision-making is influenced by attitudes and

subjective social norms, which consequently lead to the formation of an intention. This is the theoretical orientation guided by an extension of the Theory of Planned Behaviour (TPB) as it has been used to predict and explain motivation and behaviour in a variety of contexts. Consequently, intention should be predicted by certain determinants. This research adopts a relatively new model in the entrepreneurship field: the model of an expanded TPB. This states that there are certain factors that influence attitude and social norms, labelled as 'indirect' factors, which then influence intention through the particular behaviour (in this case start-up behaviour). It proposes that perceived desirability and perceived feasibility are direct precursors of intention and behaviour. This is particularly constructive as desirability equates with attitude and feasibility is a form of subjective norm and both are determinants of intention according to the TPB. Indirectly, desirability is influenced by personal attitude and social pressure (subjective norm), whereas feasibility is influenced by control beliefs. Prior to this, the model identifies antecedents of PBC and SN, as being influenced by various general and domain-specific factors. In the context of the sport and exercise industry, understanding the applicability of general and domain-specific indirect factors and their influence on attitudes, social norms, perceived behavioural control and control beliefs could provide significant understanding between the feasibility of actually translating an individual's strong desire to start their own sport or exercise-related business into an actual start-up behaviour. This is something that has never been investigated in the sport industry.

Sustainable Entrepreneurial Intentions in Sports Sciences

The sustainable intentions of entrepreneurs can be identified by using a concept or a framework. A myriad of frameworks exist in revealing the intention of an entrepreneur, in predicting behavior as the pioneer of a new venture. One well-known theory is the theory of planned behaviour (TPB). This theory has been used in various entrepreneurship studies as well as in predicting sustainable entrepreneurial behaviour. In this study, the intention will be measured using the sustainable entrepreneurial intentions (SEI) framework, which is adapted from the entrepreneurial intention (EI) construct within TPB. This 6-item construct has been used in previous studies

involving entrepreneurs from various sectors and has produced reliable and valid results.

There is a large space in the sports sciences field that can be embraced by successful entrepreneurs. In sports sciences, research in this discipline has evolved and spread across many well-known disciplines such as sports psychology, motor learning and development, sport pedagogy, sport biomechanics, sport physiology, and many more. All of these disciplines have the potential to solve current problems in the sport industry, especially in enhancing athlete or team performance. However, sustainability issues are not the main concern and are not much discussed or taken into account during the studies. This is where the decision for future entrepreneurs could make a change. By considering sustainability issues when making a business involvement, they might produce and create a product or a service with a sport science base that can benefit a wide range of sport consumers and organizations, while reducing negative impact on the environment and still maintaining economic viability.

Factors Influencing Sustainable Entrepreneurial Intentions

The findings show several factors which potentially influence SSEI among sports sciences students. These factors are measured using direct correlations of each factor to the level of sustainability, and an analysis with regression, to distinguish the main factors and the variance of SSEI it created.

In this study, Personal Attitude and Subjective Norm are two factors being measured. Each has a direct correlation to the generation of SSEI, represented by the value of r = 0.631 for Personal Attitude and r = 0.428 for Subjective Norm. Both of those factors can explain the generation of SSEI for about 51.1%.

It shows that students with higher Personal Attitude and Subjective Norm to become sports entrepreneurs who have a sustainability orientation tend to have higher intentions to practice SSE. Higher personal attitude of students, especially on the importance of being a sustainable entrepreneur guided by their belief that there is a lot that

needs to be done to solve existing problems and achieve an environmentally friendly and well-being condition by being a sports entrepreneur, will generate an interest to become SSE.

While subjective norm on the idea of significant others on them to do something, it would be interesting and valuable. They should try to persuade said others to support them to do SSE because it is unlikely to persuade others to support something that is considered negative and has little prospects for the future.

Implications for Future Sustainable Sports Entrepreneurs

The theory pertains to the relationship of SEA and SI to entrepreneurs. It is defined that entrepreneurs mainly involve in business activities and at the same time take calculated risks to achieve certain goals. The goals are often related to the intention to make more money, increase the standard of living, expand their business, and create job opportunities for others. Meanwhile, entrepreneurs, in doing their business activities, will indirectly have effects on the environment. Thus, the findings may provide a better understanding of how SEA and SI impact the environment, whether in a negative or positive way. This is because some researchers propose that entrepreneurs are the key players in determining environmental sustainability.

Entrepreneurs with sustainable intentions will likely consider the effects of their actions on societies and the future. This is because sustainable entrepreneurs are individuals who perceive and act upon opportunities to create future goods and services for which they will be known and rewarded in ways that also satisfy their need to create positive social and environmental changes. This type of intention is closely related to sports sciences, where the effects on performance and fitness levels will only be seen in the long term. In a research conducted by Hatak et al., it is found that intention focuses on the desired aim and the conscious plan on how to achieve this aim. This is in line with the research among sport science students, which shows that students with a high level of SEA are more likely to plan to be a sport science entrepreneur.

The last theory pertains to how two different types of individuals, effectual and causal, will take different actions in producing certain outcomes. Effectual individuals are the ones who fully utilize the existing means that are immediately at hand and only consider the future to the extent that it can be shaped by their immediate action. These individuals are likely to choose employment based on their past experience to maximize the chance of producing the outcome that has a specific and predicted goal. Causal individuals are the ones who take a given effect or end and then systematically work to find specific means of bringing it about. These individuals are more risk-takers as they are more likely to change the means if they find there is another way to produce the same outcome. This theory can be applicable to student athletes who are trying to become sport science entrepreneurs. The student who has a high level of SEA will have the intention to stop trying to create the business while still being an athlete because he knows it will distract the performance, although he has not tried it before.

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