**Understanding the determinants of hybrid entrepreneurship in Cameroon**

**Abstract**

This research investigates the determinants of hybrid entrepreneurship in Cameroon, aiming to understand its impact on the country's economic development. To meet this objective, the theoretical part of the work laid on the theory of planned action and the resource-based view theory. The paper's theoretical framework draws from established theories, including Harry Markowitz's portfolio theory and Ajzen's theory of planned behaviour. The empirical aspect of this research work consisted of a quantitative research based on deductive reasoning. We therefore collected data using a survey questionnaire on a reasonable sample of 57 hybrid entrepreneurs out of a hundred of them as initially targeted. The results obtained show that the individual characteristics and the contextual variables of the entrepreneurs justify their choice to become hybrid entrepreneurs. As far as individual characteristics are concerned, the results show that self-accomplishment and personal independence are the factors that motivate most to embark on hybrid entrepreneurship. As for contextual factors, access to financing appears to be the main factor. Meanwhile, the passion to become an entrepreneur does not explain their commitment to hybrid entrepreneurship.

**Keywords**: **Hybrid entrepreneurship; individual factors, contextual factors; entrepreneurial ecosystem.**

**Introduction**

In recent years, the creation of innovative businesses seems to have become the cornerstone of public policy in emerging countries. Entrepreneurship is not only an economic phenomenon, it is also a socio-cultural issue (Dudjo and al., 2022). Entrepreneurship is concerned with discovering and exploiting profitable opportunities (Shane and Venkatararnan., 2000). Furthermore, Shane (2003) defines entrepreneurship as a process that consists of identifying opportunities with the aim of converting them into a business in order to create value. We note that the two previous definitions emphasize on opportunity, which, according to the authors, is the core factor without which entrepreneurial activity cannot come into being. In concrete terms, opportunity remains an essential component that accelerates the process of business creation or promotes the emergence of entrepreneurial activity. However, the processes of discovering, evaluating and exploiting opportunities are closely linked to individual aspects (personality traits and characteristics) of entrepreneurs and their environment, which may explain their ability to discover opportunities and exploit them successfully (Shane, 2012).

Embarking on an entrepreneurial career is a gradual process that requires budding entrepreneurs to be passionate, a sense of effectiveness and a commitment to carrying out all the associated tasks. In addition, developing entrepreneurial skills sometimes becomes necessary, leading some to choose to undergo training to increase their chances of success. Given the uncertainties entrepreneurs face regarding the profitability or relevance of their project, reducing uncertainty is a rational option for risk-averse individuals, which could lead to hybrid entrepreneurship. Thus, by being hybrid, the choice oscillates between keeping one's job and entrepreneurship (Kritskaya and al., 2017). Nevertheless, this dual occupation can have consequences for commitment to it.

Hybrid entrepreneurship is a form of entrepreneurship that combines the exploitation and/or creation of business opportunities while maintaining paid employment (Kritskaya and al., 2017). This approach is gaining momentum both in the entrepreneurial field (Dvoulet**ý** and Bôgenhold, 2023) and in academic research (Chirita and Gonthier, 2017). It is attracting growing interest among emerging entrepreneurs because it reduces personal risk (Kurczewska and Mackiewicz, 2020) and mitigates the uncertainties associated with starting or taking over a full-time business (Thorgren and al., 2014). It has been shown to be a particularly effective strategy for entrepreneurs to minimize risks, test their skills and refine their entrepreneurial project (Raffiee and Feng, 2014).

Hybrid entrepreneurship is a strategy for entering the entrepreneurial career path (Folta et al., 2010) because it allows budding entrepreneurs to test their project or have it validated while keeping their salaried job. During this phase, some people may consider undergoing entrepreneurial training (Oosterbeek, van Praag and Ijsselstein, 2010) due to a lack of experience. Furthermore, studies have shown that successful entrepreneurs have opted for this strategy (Bogenhold and Klinglmair, 2016; Bogenhold and al., 2017; Solesvik, 2017b) and that in several countries, hybrid entrepreneurship is a significant social phenomenon, especially among newly active entrepreneurs (Folta and al., 2010; Raffiee and Feng, 2014).

For a long time, entrepreneurs were seen as people who were totally focused on their business. But now, more and more people are starting and running their own businesses while also doing other stuff (Burke and al., 2008). The term “hybrid entrepreneurship” refers to the phenomenon of simultaneously engaging in salaried work and entrepreneurial activity (Demir and al., 2022; Thomas and Okunbanjo, 2021). This is a situation in which individuals combine the roles of employee and entrepreneur (Kritskaya and al., 2017). This form of entrepreneurship is a real opportunity for many to experiment with an entrepreneurial career without necessarily giving up their salaried job.

The investor will tend not to put all his/her eggs in one basket, as this can involve a number of risks. One solution is to diversify his/her portfolio, which is an excellent strategy for choosing and selecting a portfolio. Diversifying a portfolio of securities or assets makes it possible to either reduce risk for a given level of return or improve returns for a given level of risk. While studying hybrid entrepreneurship, various authors discuss the influence of demographic factors on hybrid entrepreneurs, such as age (Delmar and al, 2008) and gender (Folta and al, 2010). Others argue that the entrepreneur's objectives (Raffiee and Feng, 2014), level of education (Bôgenhold and Klinglmair, 2016) and social capital (Schulz and al., 2017; Thorgren et al., 2016) influence the choice of hybrid entrepreneurship, but other authors emphasise individual variables (Markowitz, 1959 ; Kaiser and al., 1999) and contextual variables (Dimaggio and Powell, 1997) to justify hybrid entrepreneurship.

Given the contribution of small and medium-sized enterprises to the economic tissue and their contribution to gross domestic product, the issue of overloads and lack of time hindering their development highlights a contradictory debate in this sector. This situation leads us to ask the following main question: What are the determinants of hybrid entrepreneurship in Cameroon?

This main question gives rise to two related subsidiary questions:

* Do the individual variables of the entrepreneur justify their boarding on hybrid entrepreneurship?
* Do the contextual variables of the entrepreneur explain their engagement in hybrid entrepreneurship?

The research questions have enabled us to set a main objective, which is to determine the factors that explain the use of hybrid entrepreneurship in Cameroon. This objective gives rise to the following two specific objectives:

* Determine the individual variables that explain the boarding on hybrid entrepreneurship in Cameroon;
* Determine the contextual variables that explain the engagement in hybrid entrepreneurship.

To achieve these objectives, this article is structured into four sections. The first section presents a review of the literature on the subject. The second section discusses the approach adopted and the sampling plan. The third section presents the results and the fourth section is devoted to discussing the results.

1. **Litterature review**

This section briefly presents hybrid entrepreneurship and its explanatory factors, as well as the theoretical impact of these explanatory factors on hybrid entrepreneurship, leading to the formulation of research hypotheses.

* 1. **Conceptual clarification of explanatory factors and hybrid entrepreneurship**
     1. **Facteurs explicatifs de l’entrepreneuriat**

In this section, we will highlight the various factors that explain hybrid entrepreneurship on the one hand, and the theoretical framework of the factors that explain hybrid entrepreneurship on the other.

1. **The notion of explanatory factors of hybrif entrepreneurship**

Hybrid entrepreneurship involves reconciling one's job with entrepreneurial activity. It is becoming increasingly common and is influenced by individual and contextual variables. The individual variables included risk minimization, passion, personal fulfilment and personal independence. The contextual variables consist of laws and regulations, access to financing, innovation and support institutions

1. **Theoritical framework**

In this section, we present the various theories used to explain individual and contextual variables. The paper's theoretical framework draws from established theories, including Harry Markowitz's portfolio theory and Ajzen's theory of planned behavior.

* **Portfolio theory**

Modern portfolio theory was developed in 1952 by Harry Markowitz. Starting from the premise that the risk of a portfolio can be accurately measured by the variance in its return, Markowitz explains and formalizes the fundamental dilemma of modern finance: achieving a low but certain return, or accepting risk in the hope of increasing that return, with the expected return being higher, the greater the risk. He also formalizes and quantifies the diversification effect, whereby a judicious combination of many assets in a portfolio reduces the total risk incurred for a given expected rate of return. In his approach to building a portfolio of financial assets, he examines the relationship between the expected return and risk of financial assets. Investors seek to rationalize their investment choices in the financial markets. More specifically, an investor's rationality is determined by a utility function that is expressed in an increasing manner in terms of return and in a decreasing manner in terms of risk.

Markowitz's work proved to be extremely important and profoundly changed the way financial problems were conceived. In particular, it showed that the value of investing in a financial security should not be assessed in isolation, but rather within the context of the investor's entire portfolio and a competitive market where numerous savings compete with each other (shares, bonds, term deposits, real estate, land, etc.). About ten years after Markowitz's work, and in strait line with it, Sharpe, Lintner and Mossin developed a model (the Capital Asset Pricing Model or CAPM) which, under certain assumptions, leads to the expected equilibrium return of any security.

For an investor who follows the expected return-variance criterion, solving the above problem involves understanding how the expected return and variance of the portfolio behave in relation to the profitability and risk characteristics of the securities that comprise it. The contribution of each security to the expected return of the portfolio is therefore directly proportional to its expected profitability. As for risk, we can measure the risk of the portfolio by the variance (or standard deviation) of its profitability. But what is true for a portfolio is not true for an individual security. Indeed, the risk induced by an individual security ‘i’ for the investor holding portfolio ‘P’ must be measured by the contribution of “i” to the overall risk of ‘P’ (as it is its contribution to the expected return of the latter that must be taken into account).

* **The theory of planned behavior**

The theory of planned behavior was developed by the social psychologist Ajzen. According to Ajzen (1991), all intentional reasoning is a psychological aspect that arises from the interaction between individuals and the society. This theory stems from a previous approach to entrepreneurial intention described in the theory of reasoned action, where the idea developed was generally part of understanding the factors that justify individual behaviour (Ajzen and Fishbein, 1980). The notion of intention is therefore understood in this approach to planned behavior in terms of desirability and feasibility. A control variable is integrated into this theory in order to highlight aspects that are not related to individual will. This is perceived control. In this theory of planned behavior, Ajzen points out that intention is explained by three categories of elements: attitudes towards behavior, subjective norms, and perceived behavioral control. These three factors interact to influence an individual's intention to adopt a specific behavior.

The theory of planned behavior, with the introduction of subsequent inputs, allows us to focus on comparative abilities, setting aside the role played by the concepts of scarcity and inimitability. The contributions of differential capabilities theory provide a basis that can be easily transposed to this research question. The firm believes it has capabilities superior to those of potential subcontractors, illustrating this approach. This distinction is widely confirmed. To this end, they differentiate between studies focusing on the notion of competitive advantage, i.e. on considerations of sustainability and scarcity, and studies focusing on comparative advantage, which emerged later and are based solely on comparative capabilities, where scarcity and inimitability do not play a central role.

In the context of entrepreneurial intention, we can talk about a set of beliefs regarding the outcome of entrepreneurial action. These beliefs about the consequences of entrepreneurial action can be stated as either favorable or unfavorable. The way in which social norms are understood and perceived: this variable refers to the social aspect developed previously in Bandura's social cognitive theory (1993). Indeed, entrepreneurial intention alone is not enough to take entrepreneurial action. Several aspects of the social context must be taken into account, in particular environmental pressure. This pressure is exerted by all the people who are important to the potential entrepreneur and whose opinions may have a favorable or unfavorable influence on the decision to take entrepreneurial action or not.

* + 1. **Hybrid entrepreneurship: definition and dimensions**

Embarking on an entrepreneurial career is a gradual process that requires budding entrepreneurs to have a certain amount of passion, a sense of effectiveness and a commitment to carrying out all the associated tasks. In addition, developing entrepreneurial skills sometimes becomes necessary, leading some to choose to undergo training to increase their chances of success. Given the uncertainties entrepreneurs face regarding the profitability or relevance of their project, reducing uncertainty is a rational option for risk-averse individuals, which could lead to hybrid entrepreneurship. Thus, by being hybrid, the choice oscillates between keeping one's job and entrepreneurship (Kritskaya and al., 2017). Nevertheless, this dual occupation can have consequences for commitment to it.

Hybrid entrepreneurship is a newly proposed concept by researchers and, as a result, has not been studied extensively at this time. In the 2008s, the concept of hybrid entrepreneurship began to emerge (Delmar and al., 2008), and it was in the 2010s that Timothy Folta and his colleagues placed particular emphasis on the phenomenon, giving rise to the term ‘hybrid entrepreneurship.’ The objective of hybrid entrepreneurship here is to put into perspective the reasons that motivate individuals to engage in a hybrid entrepreneurial career.

Hybrid entrepreneurship is a choice or strategy on the part of the hybrid entrepreneur to test their entrepreneurial project, limit the risk of total loss of income and, in the long run, leave salaried employment. Folta and al. (2010) note that hybrid entrepreneurship is a form of strategy for entering an entrepreneurial career with the aim of testing one's entrepreneurial project, an intermediate step in the transition to full-time entrepreneurship. The notion of strategy refers to a set of preparatory measures taken in order to achieve a specific goal. Implicitly, hybrid entrepreneurship refers to a form of reasoned commitment because it focuses on the costs of a possible departure from salaried employment. In other words, hybrid entrepreneurship is preceded by a motivation to retain one's salaried job and pursue an entrepreneurial activity while eliminating as much of the perceived risk as possible.

For Raffiee and Feng (2014), the hybrid strategy influences the survival of the newly created company, as the budding entrepreneur minimizes risks at the outset. This definition of the concept is in line with that of Folta and al. (2010), who view the concept as a strategy for validating a project. Thus, engaging in a hybrid approach is strongly linked to the entrepreneur's overall vision of their commitment to an entrepreneurial career. In this study, we define hybrid entrepreneurship as a strategy for entering an entrepreneurial career, i.e., keeping one's job while testing one's entrepreneurial project. Enrolling in entrepreneurship training is a form of commitment to an entrepreneurial career, and by holding a job, the individual must necessarily combine their salaried employment with training, which is a form of hybrid strategy or hybrid entrepreneurship.

Hybrid entrepreneurship is a way to become a full-time entrepreneur and test one's entrepreneurial skills and business idea (Dvouletý and Bôgenhold, 2023). It is proving popular with budding entrepreneurs as it reduces and mitigates the personal risks and uncertainties inherent in starting or taking over a new full-time business. In addition, our study highlights three dimensions of hybrid entrepreneurship. These three psychological dimensions play a key role in an entrepreneurial career. These dimensions are:

* **Self-efficacy**, which is the belief in one's own ability to perform in different situations (G. Chen, Gully, and Eden, 2001). Several studies agree that a person with a high level of entrepreneurial self-efficacy (Drnovsek, Wincent and Cardon, 2010) will take initiatives that will take their business to new heights (Hechavarria and al., 2012) despite the challenges they face. For example, Hmieleski and Baron (2008) argue that a person without a minimum level of entrepreneurial self-efficacy would not be sufficiently motivated to engage in the process of starting a business. Self-efficacy is an important psychological factor in pursuing an entrepreneurial project and shapes a character that embraces uncertainty (Indrawati and al., 2015). Conversely, low self-efficacy is related to a low belief in one's own abilities. Similarly, Folta and al. (2010) argue that when entrepreneurs lack confidence in the relevance of their projects, they adopt a hybrid strategy;
* **Career commitment**, which is defined as a form of work commitment that employees have towards their career and can be linked to desired professional outcomes (Ballout, 2009). For an entrepreneur, their commitment to their entrepreneurial career fundamentally represents the level of attachment (affection) they have towards their career. More specifically, engaging in an entrepreneurial process must involve a form of discipline to make the project more relevant and can inspire the desire to consider entrepreneurship as a good career choice. By analogy, we can say that entrepreneurial training plays an important role in the development of certain skills, particularly those related to entrepreneurship;
* Passion, defined by Vallerand and al. (2003) as a strong inclination towards an activity that a person enjoys, finds important, and invests time and energy in Gorgievski-Duijvesteijn and Bakker (2010) argue that passion is an indicator of performance at work and is directly linked to a person's commitment to their career. This indicates that the level of commitment is a consequence of the level of passion that drives the individual in their career and that this has an impact on effectiveness.
  1. **Incidence théorique des facteurs qui justifient l’entrepreneuriat hybride**

Hybrid entrepreneurship is a new and little-explored topic in entrepreneurial literature, and one that deserves special attention since studies have shown that budding entrepreneurs, in an effort to limit the uncertainties surrounding it, sometimes opt for this strategy. Numerous studies have attempted to highlight the factors explaining hybrid entrepreneurship in Cameroon. Given the comprehensiveness of these factors, an exploratory study was conducted with the aim of identifying, in the Cameroonian context, the main factors that justify the hybrid entrepreneurship of Cameroonian entrepreneurs. The aim is therefore to use the existing literature to identify the different variables that explain entrepreneurs' commitment to hybrid entrepreneurship in Cameroon and to develop hypotheses that will be tested.

* **Individual variables explain engagement in hybrid entrepreneurship**

Individual variables include risk minimisation, passion, personal fulfilment and personal independence. The literature shows that possessing specific skills or expertise can influence a person's career choice (Lent and Brown, 1996; Lent and al., 1994; Meyer and al, 1993). In other words, people generally choose careers in which they feel effective and experience a certain emotional state. Furthermore, studies have shown that passion is an intense positive feeling that is salient to the individual (Cardon and al., 2013; Cardon and al., 2009; Vallerand and al., 2010; Vallerand and al., 2007). From the above, entrepreneurial passion can develop when individuals discover that it meets their expectations and contributes to their well-being.

The aim of entrepreneurial training is to provide learners with a set of tools that will enable them to develop specific skills in order to pursue an entrepreneurial career. Thus, someone who discovers through training that they are adept at communicating their business plan effectively, finding solutions and identifying good ideas may easily feel confident and, as a result, become passionate about an entrepreneurial career. Furthermore, Gielnik and al. (2015) examined the role of entrepreneurial passion in the persistence of entrepreneurial tasks among a panel of 54 entrepreneurs. The results showed that the more entrepreneurs feel capable of performing tasks, the more confident they become, and their feelings are positively influenced, contributing to shape entrepreneurial passion.

Individual variables of hybrid entrepreneurship refer to the personal characteristics of entrepreneurs that drive them to engage in entrepreneurial activities combining economic and environmental objectives. According to Santos (2012), these individual variables include aspects such as intrinsic motivation, personal values, entrepreneurial skills, and the ability to juggle multiple objectives. Hybrid entrepreneurs are often motivated by both economic and environmental considerations. Therefore, to understand hybrid entrepreneurship, it is essential to analyze these individual variables that influence the entrepreneurial behavior of individuals engaged in this type of activity. These personal characteristics can play a crucial role in the creation and development of successful hybrid businesses, shaping the choices and actions of entrepreneurs in a context where multiple objectives are pursued simultaneously. Hence the first specific hypothesis (SH1): *the individual variables of the entrepreneur justify their choice for hybrid entrepreneurship*.

* **Contextual variables explain the engagement in hybrid entrepreneurship**

Hybrid entrepreneurship is a phenomenon that has been studied due to its prevalence and the advantages it offers entrepreneurs, including risk reduction and access to resources (Folta et al., 2010; Raffie and Feng, 2014, Sachitra and Jaward, 2023; Olabamiji and al., 2021). However, this type of entrepreneurship is strongly influenced by contextual variables that can shape entrepreneurs' motivations, strategies and outcomes. Laws and regulations concerning the combination of activities can either facilitate or hinder hybrid entrepreneurship. The same applies to access to financing and innovation, which can strongly influence the decision to become a hybrid entrepreneur.

Furthermore, like any other training, entrepreneurial training requires time and a good understanding of the concepts learned in order to expand one's skills. Being hybrid, the commitment oscillates between salaried employment and entrepreneurial training. According to Tang (2008), emotional commitment leads entrepreneurs to remain resilient regardless of the high risks and uncertainty associated with starting new businesses. From the above, entrepreneurs driven by an emotional commitment to their entrepreneurial career would be more inclined to want to realize their project. However, contextual variables could significantly affect the desire to carry out the project, since it is at the testing stage and involves constraints related to reproducing exercises and conducting simulations. We can therefore assume that the hybrid entrepreneur would be forced to divide their time between salaried employment and entrepreneurial training, which would inevitably introduce an identity conflict (am I an employee or an entrepreneur?), which could negatively influence their emotional enthusiasm for the entrepreneurial career.

The contextual variables of hybrid entrepreneurship are also important for understanding this phenomenon. According to Mair and Martí (2006), these variables include institutional support, the availability of financial and non-financial resources, the local entrepreneurial culture, and market opportunities. These external factors can influence the creation and development of hybrid businesses by facilitating or hindering their success. Therefore, to fully understand hybrid entrepreneurship, it is crucial to analyze these contextual variables surrounding entrepreneurs engaged in this form of economic activity. This leads us to formulate the second specific hypothesis (SH2): *the contextual variables of entrepreneurs explain their engagement in hybrid entrepreneurship*.

1. **Methodology and sampling technique**
   1. **Research methodology**

Methodology is an important element in the research process. It is defined as the way of thinking about and studying social reality, establishing how a phenomenon will be analyzed, discovered and interpreted. It allows researchers to control the qualitity of their research and obtain results. According to Evrard and al. (1997), there are two main research methods: qualitative and quantitative.

In this research, we rely on existing research works to develop hypotheses that will be tested using various statistical tests. Our research was based on a hypothetical-deductive approach and the approach adopted is quantitative. As the study is explanatory in nature, we extracted hypotheses and constructed a theoretical model that we subjected to empirical validation with a sample of Cameroonian hybrid entrepreneurs.

By drawing on the literature, it enabled us to establish the individual and contextual factors that determine hybrid entrepreneurship in Cameroon. This study therefore takes a positivist epistemological stance. The requirements of such an approach include, among other things, the construction of a theoretical research model based on literature on the subject.

* 1. **Sampling technique and conceptual framework**

Given the large number of Cameroonian entrepreneurs in the population, it seemed appropriate to extract a sample to carry out our study. In the context of our study, we chose the non-probabilistic method, more specifically purposive sampling, because the researcher wanted to focus their research on a type of phenomenon or individuals that would stand out from others according to certain desired characteristics. This method is used because the probability of an entrepreneur being chosen at the outset is not known in advance. This method therefore seems to be the most suitable for our work, given that we do not have any survey databases. We selected Cameroonian hybrid entrepreneurs in order to obtain a large amount of reliable information on the determinants of hybrid entrepreneurship in Cameroon. The accessible population consisted of fifty-seven (57) hybrid entrepreneurs from different sectors of activity in Cameroon.

Several investigative techniques are used to collect data, including observation, surveys, document analysis and interviews (guided). Surveys were used in this study. This research technique aims to gather information from well defined individual. The survey was conducted among various entrepreneurs. Its objective was to obtain statistical data on the various determinants of hybrid entrepreneurship in Cameroon. As data collection tools, we used a questionnaire, as we opted for a positivist approach and are conducting a quantitative analysis. After the collected data has been collated, they will be processed using SPSS 25 data processing software, version 2.1.0 and SmartPLS version 4.

The variables measured in this context are nominal and ordinal scales. For ordinal variables, we used dichotomous closed questions and multichotomous closed questions. We used descriptive statistics to appreciate the different variables individually. We will use the structural equation model in which the relationships between variables are represented by arrows indicating causal links.

The conceptual model of the explanatory factors of entrepreneurship through its dimensions mobilized in our research is presented below:

**Figure 1: Conceptual model of explanatory factors for hybrid entrepreneurship in Cameroon**

* Risks management;
* Passion;
* Self accomplishment;
* Personal independance.
* Regulations;
* Access to financing;
* Innovation;
* Incubators.

**Source: Litérature review**

1. **Presentation of results**

The purpose of this section is to highlight the factors that explain hybrid entrepreneurship in the Cameroonian context. To achieve this, we administered a questionnaire to 57 hybrid entrepreneurs randomly selected. For the identification process itself, we formulated two specific hypotheses, the verification and inference of which will enable us to determine the determinants of hybrid entrepreneurship in Cameroon. We therefore highlight the individual and contextual variables that justify the use of hybrid entrepreneurship.

* 1. **Assessment of individual variables as determinants of hybrid entrepreneurship**

The purpose of this subsection is to verify our first specific research hypothesis, which states that *individual variables justify the use of hybrid entrepreneurship*. To verify this hypothesis, we must first identify and factorize the key indicators of individual variables before verifying whether these indicators have explanatory power with regard to engagement into hybrid entrepreneurship.

* **Identification and factorization of individual variables**

Each of the individual variables in our study has indicators that will be factorised in order to identify and retain the best ones. This will enable us to obtain a KMO index that will confirm that the selected indicators explain the variable, and verification of the explanatory power of the fluctuations will enable us to confirm that these indicators have indeed explanatory. However, it is important to verify the degree of homogeneity of these indicators, i.e. their similarity (or closeness) in space by reading their coefficients in the component matrix, which will provide a composite indicator before looking at the reliability based on the Cronbach's Alpha. The analysis is presented in the table below:

**Table 1: Summary table after factorization of individual variables**

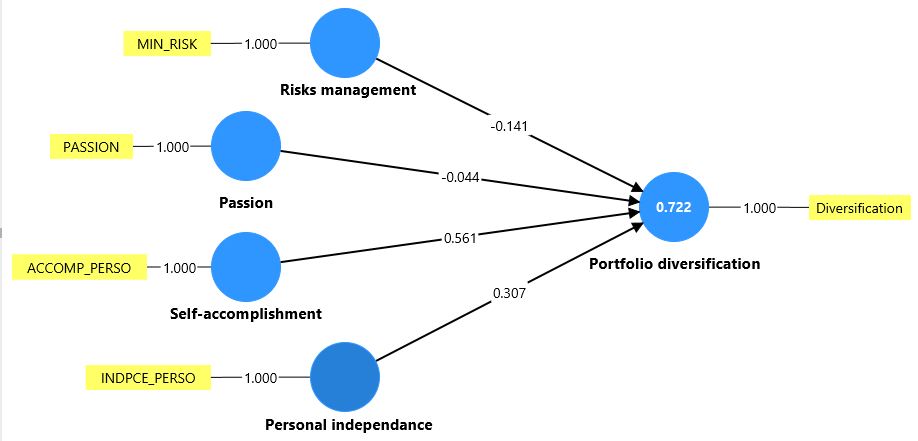
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **KMO index** | **Chi-Square** | **Total Variance Explained** | **Cronbach’s Alpha** |
| **Risks management** | 0,610 | 67,857 | 71,832% | 0,772 |
| **Passion of the entrepreneur** | 0,532 | 49,492 | 65,587% | 0,705 |
| **Self accomplishment** | 0,530 | 109,291 | 67,729% | 0,756 |
| **Personal independence** | 0,418 | 88,642 | 70,325% | 0,760 |

**Source: The authors**

According to the table above, the KMO index for each dimension is greater than 0.5, except for personal independence. In other words, the indicators selected to explain risk minimization, entrepreneurial passion, personal fulfilment and personal independence appear to be the preferred indicators in the context of our study. Furthermore, it is important to verify their explanatory power on the fluctuations in the total variance explained. This is highlighted in the table by the percentages that explain the power of these variables. Given that the total explained variance is above average, the indicators of these variables do indeed explain the variables in our study. It is therefore important to note that these indicators are homogeneous with a degree greater than 0.5 obtained using the component matrix. This has enabled us to create a composite indicator for each variable. However, we must ensure reliability using Cronbach's alpha. Looking at the summary table above, we can see that Cronbach's alpha is above 0.7 for all variables. This proves that our composite indicators are indeed reliable for the purpose of our analyses.

* **Verification of the hypothesis of individual variables being explanatory factors of hybrid entrepreneurship**

**Figure 2**: **Test of the individual factors of hybrid entrepreneurship**



**Source : Survey results**

From the figure above, one notices that, the direct effect of the selected individual factors, although strong, is positive (coefficient of determination of 72.2%). Taken individually, it appears that the most influential indicator is self-accomplishment with a regression coefficient of 0.561; followed by personal independence with a regression coefficient of 0.307. This make us understand that, as far as individual variables are concerned, what motivates the prospected hybrid entrepreneurs most is to become autonomous. This has nothing to do with enthusiasm nor risk minimization. Hybrid entrepreneurs are risk takers and not risk averters. As far as our specific hypothesis is concerned, we therefore notice that not all the individual variables explain the engagement in hybrid entrepreneurship. We thus conclude that ***empowerment best explains the engagement in hybrid entrepreneurship than enthusiasm***.

* 1. **Assessment of contextual variables as explanatory factors for entrepreneurs' engagement in hybrid entrepreneurship**

This subsection on the assessment of contextual variables as explanatory factors for entrepreneurs' engagement in hybrid entrepreneurship aims to test our second specific research hypothesis, which states that *contextual variables explain entrepreneurs' engagement in hybrid entrepreneurship*. To test this hypothesis, we must first identify and factorize the key indicators of contextual variables before verifying whether these indicators are indeed the most explanatory of the various contextual variables.

* **Identification and factorization of contextual variables**

The contextual variables in our research are identified based on measurement indicators. Our questionnaire enabled us to highlight laws and regulations, access to financing, innovation, and support institutions. The selected indicators will enable us to obtain the KMO and Chi-square values, which will determine whether these indicators should be retained. The reliability analysis using Cronbach's alpha will confirm whether to retain the composite indicator for further analysis. The results of the analyses are shown in the summary table below:

**Table 2 : Recap table after factorizing contextual variables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **KMO index** | **Chi-Square** | **Total Variance Explained** | **Cronbach’s Alpha** |
| **Rules and regulations** | 0,512 | 88,642 | 69,540% | 0,763 |
| **Access to financing** | 0,518 | 88,642 | 70,325% | 0,760 |
| **Innovation** | 0,572 | 27,397 | 56,986% | 0,712 |
| **Incubators** | 0,619 | 20,183 | 55,403% | 0,768 |

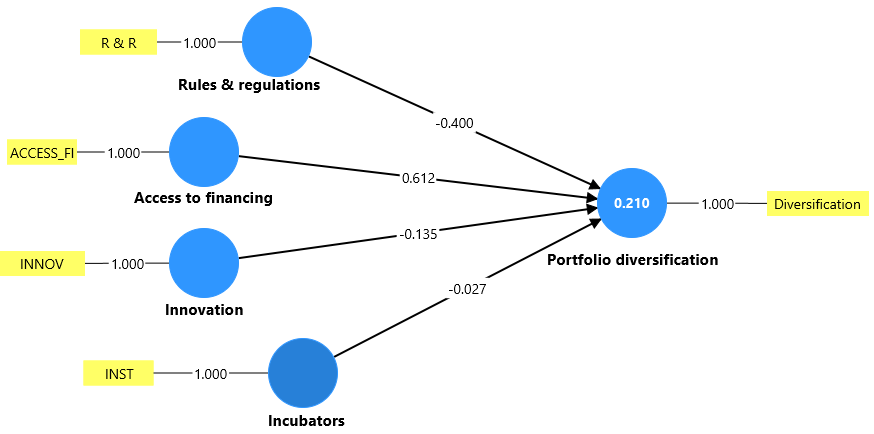
**Source: The authors**

Looking at the table above, the KMO index and the Cronbach’s Alpha are all significant as far as the reliability of the various indicators is concerned. In other words, all the indicators used to appreciate the various contextual variables are reliable and best fit to appreciate this phenomenon. What therefore remains is to verify how explanatory these variables are to engagement in hybrid entrepreneurship.

* **Verification of the hypothesis that contextual variables are explanatory factors for entrepreneurs' engagement in hybrid entrepreneurship**

Just like the first hypothesis, our second specific hypothesis is verified using the structural equation method, which brings together the four contextual variables and the engagement in entrepreneurial activities by salaried workers. The results are given below:

**Figure3: Testing contextual factors that determine hybrid entrepreneurship**



**Source: Authors**

At first glance, let’s note that the overall effect of contextual variables on hybrid entrepreneurship is positive but weak (R-Square of 0.210). This is so because only one indicator positively and significantly contributes to the engagement of salaried workers in entrepreneurship. This indicator access to sufficient financial means (regression coefficient of 0.612). in other words, the greater the financial means, the higher to probability for people to become hybrid entrepreneurs. This is not the case for the rules and regulations, innovation and incubators. These three variables take a toll on the financial means of our entrepreneurs; that’s the reason why that they instead influence the entrepreneurial decision negatively. As such, our second specific hypothesis is empirically stated as follows: **access to financing is the major contextual variable that positively and significantly influence the engagement in hybrid entrepreneurship.**

1. **Discussion of results**

In light of the above results, we tested the validity of a model with eight explanatory variables, namely individual factors and contextual factors. Section 3 shows a positive and strong effect of individual factors on the decision to embark on hybrid entrepreneurship (R-Square = 0,722). However, it should be noted that this effect is not the same among the explanatory variables chosen, as some variables have a negative and very weak effect. As for contextual factors, although the overall effect is positive, it is weak with a R-Square of 0.210. This is due to the fact that several contextual variables have a negative effect on commitment to hybrid entrepreneurship. We obtained results in line with the initial hypotheses we formulated. We have summarized the results according to the theoretical framework used in the table below**:**

# **Table 3: Empirically estimating the determinants of hybrid entrepreneurship**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Theoritical approaches used** | **Hypotheses** |  | **Relationship** | |
| **Explanatory** | **Theoritical** | **Empirical** |
| **Behavioral finance theory supplemented by modern portfolio theory** | SH1 | Risks Mgs | + | - |
| Passion | + | NS |
| Self-Accom.. | + | + |
| Personal ind | + | + |
| **Planned behaviour theory supplemented by POT, TRC and TNIs** | SH2 | Regulations | +/- | - |
| Financing | + | + |
| Innovation | + | - |
| Incubators | + | NS |

**Source : The authors**

The specific hypothesis assumes that the entrepreneur's individual variables justify their choice of hybrid entrepreneurship. Indeed, according to modern portfolio theory, the value of investing in a financial security should not be assessed separately but within the context of the investor's entire portfolio and a competitive market (Markowitz H., 1959). Our empirical results contradict this idea. The choice of our hybrid entrepreneurs would be to develop a taste for risk. The theses put forward around planned behavior theory postulate that all intentional reasoning is a psychological aspect that occurs in an interaction between the individual and society (Kaiser, F. G., Wolfing, S., & Fuhrer, U., 1999; Tarkiainen, A, & Sundqvist, S., 2005). This is not verified with the entrepreneur's passion. This allows us to confirm that this hypothesis is partially validated.

The second specific hypothesis assumes that the entrepreneur's contextual variables explain their commitment to hybrid entrepreneurship. Resource and competence theory asserts with deep conviction that the profitability of firms also stems from intrinsic resources and not just from the sector (Teece, Pisano, and Shuen, 1997). This is not verified with hybrid entrepreneurship. Price is no longer a credible signal of the value of the good, as it no longer plays its informational role; in fact, at the same price, it is possible to obtain goods of different qualities, according to Stiglitz and Weiss (1981). Our results are consistent with those put forward. The thesis put forward by Tarkiainen, A., & Sundqvist, S. (2005) on incubators is not verified. This allows us to confirm that this hypothesis is partially validated.

**Conclusion**

The objective of this research was to determine the factors explaining engagement in hybrid entrepreneurship in Cameroon. To this end, we relied particularly on Harry Markowitz's portfolio theory and Ajzen's theory of planned behavior to explain the determinants of hybrid entrepreneurship. We formulated two specific hypotheses that were tested for our present study. We conducted a survey using a questionnaire administered to 57 Cameroonian entrepreneurs engaged in various activities, which enabled us to collect data. To gain a better understanding of our various analyses, the questionnaire was completed by each entrepreneur. The non-probabilistic method of reasoned choice was adopted in our study. After the collected data were collated, they were processed using SPSS 25 data processing software. We performed the explanatory analysis using simultaneous regressions under SmartPLS. These results seem to validate the theoretical framework used in our study.

In order to carry out our study, we first established a conceptual model based on our variables, which enabled us to operationalize them and determine their unit of measurement. We also described the various tests that should be used to analyze these variables. We carried out a descriptive analysis of the characteristics of the sample and the profile of the respondents for the various variables selected in our model. After performing various reliability tests using Cronbach's alpha, factor analysis enabled us to select a composite variable. Once selected, these factors were renamed in order to proceed with structural equations analysis. The results obtained enabled us to evaluate our various hypotheses.

The results obtained show us that the individual variables in our study that explain the use of hybrid entrepreneurship in Cameroon are not all those that we had when operationalizing. Personal fulfilment and personal independence have a significant influence on hybrid entrepreneurship. On the other hand, two of the individual variables, specifically the desire to minimize risk and entrepreneurial passion, have a negative influence on the use of hybrid entrepreneurship. This shows that the hypothesis is partially validated. As for contextual variables, we identified those that negatively influence the use of hybrid entrepreneurship. These are laws and regulations, innovation, and support institutions. Furthermore, in our study, only access to financing positively influences the use of hybrid entrepreneurship.

Nevertheless, the various results obtained at the end of this study enrich the body of work on entrepreneurship. However, they are also subject to certain limitations. First, as a limitation to this research, the generalizability of our results can be questioned in relation to the size of our data collection sample (57 entrepreneurs). The reliability of the results increases with the size of the sample from a literature perspective. This makes it difficult to generalize the results explaining hybrid entrepreneurship in Cameroon. Next, more explanatory variables will need to be incorporated into the empirical model, particularly by taking into account the economic, socio-political and cultural context of the field studied, among other factors. We can mention the approximation used to understand the different variables. This leads us to consider, for future research, the inclusion in the theoretical model of other explanatory factors of hybrid entrepreneurship, such as the gender, age and education of the entrepreneur. Finally, in future research, we could study entrepreneurship using another approach, which could be qualitative and still mixed.

Disclaimer (Artificial intelligence)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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