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Validation of Decision Criteria and Determining Factors Importance in Advocating for Sustainability of Entrepreneurial Startups towards Social Inclusion and Capacity Building

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Abstract: The main goal of the study is to assess the decision criteria and the determining factors for the sustainability of entrepreneurial startups in order to contribute towards social inclusion and capacity building. Both concepts are in the development phase and are the outcome of entrepreneurial ecosystem and individual behavior and traits. The current study observed the research problem as entrepreneurship and entrepreneurial startups are the continuous phenomena required for every economy. The lack of an efficient ecosystem and incompetent trait of an entrepreneur brings the entrepreneurial startup to failure. Therefore, an assessment of decision criteria and determining factors categorizing them by their importance may provide the requirements to lead to a successful entrepreneurial startup, contributing to social inclusion and capacity building. The study solved the research problem by statistical assessment of decision criteria and determining factors and categorizing them by their importance may provide the requirements to lead to a successful entrepreneurial startup. The research is built on research questions, objectives, a conceptual model, and a hypothesis, which are tested based on the data collected. The collection of data was done through a survey questionnaire on a sample of established entrepreneurs. The study concludes that the five components of decision criteria are region, competition, funding opportunities, tax system, and country economic situation, whereas eight determining factors, consciousness and reliability, pursuit of results, flexibility, stress resistance, skills of identification and exploitation of potential market opportunities, leadership, creativity and innovation, and delegation of decision-making, are required for a successful entrepreneurial startup to be able to work towards social inclusion and capacity building.

Keywords: capacity building; decision criteria; determining factors; entrepreneurship; entrepreneurial ecosystem; entrepreneurial startup; social inclusion

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1. Introduction

Entrepreneurial startups (ES) have emerged as the most valued idea since the beginning of the 21st century compared to earlier years all around the world. These ventures could fuel the economy to be more productive and self-sustainable for domestic requirements, new job creations, and resource utilization. The increasing demand of international products with the global distribution network has created an opportunity for export. The sustainability of entrepreneurial startups [1] depends on many factors of the economy such as the economic situation, tax system, law, competition, funding opportunities, geographic region, labor supply, etc. [2–5], considered as the external determinants. Entrepreneurial start-ups may play an important role in achieving sustainable and inclusive growth by empowering marginalized and disadvantaged groups to start their own ventures. Inclusive entrepreneurship policies should be designed to ensure that everyone has equal opportunities for business creation and self-employment [6].

At the same time, factors that motivate an individual to establish an entrepreneurial venture are no/low job satisfaction, professional experience, need for independence and autonomy, willingness to take a risk, irregular working hours, influence of family/friends, opportunity to develop own skills, and opportunity in the market for own [7] idea as the preferred choice option of internal determinants. Furthermore, internal determinants can be categorized with individual traits such as skilled identification of exploitation of potential market opportunities, creativity and innovation, delegation of decision making, openness for change, leadership, ethics, communication ease of establishing contacts, resolving conflicts, personal culture, cooperation in achieving goals, pursuit of results, conscientiousness and reliability, stress resistance, and flexibility [8,9]. A holistic approach is required from different ESs engaging different agencies towards the implementation of policies contributing towards the capacity building process [10].

The motivation for entrepreneurial startups is invisible and difficult to determine in an individual. The comparison of success and failure of all entrepreneurial ventures [11,12] can provide the status of involved important success factors. This study is focused on the assessment of selected determining factors from the literature and their importance based on the responses from sustainable entrepreneurial startups. Economic growth depends on production capacity enhancement by startups. Participation in economic activities may be possible by promoting innovation and allocation of financial and non-financial resources to entrepreneurial startups. Although there is modification in factors of production in the era of entrepreneurial advancement, knowledge and capital, whether physical or human, are basic requirements to transform entrepreneurship into being profitable to the economy, as stated by Adam Smith [13]. There is a need for universities and research institutions to work towards development through collaboration from different industries in order to train the scholars regarding ESs, which would contribute towards social inclusion and capacity building at the ground level [14].

Nevertheless, the right information about determinants can create a system to plan for future startups. Entrepreneurial startups are based on three constituents; first is the entrepreneur [15,16], second is the government/non-government supports [17], and the third is the geographical region [18,19]. Understanding these three dimensions and their impact can be an evolution for shaping startups to be sustainable [20]. This research processes and filters the existing determinants based on their priority to develop a conceptual model and statistically justifying their incorporation. This study is required for individuals willing to venture into entrepreneurial startups and the training institutions to prepare themselves according to the framework. The ESs have the real potential to make a positive impact in society in a number of ways. The impact can be seen in the form of the creation of employment, bringing in innovation, and addressing social issues to support economic growth of any country. The outcome model will uncover the internal conflict among determinants for their importance.

Entrepreneurial startups are always the interest area for academicians and researchers [21,22] with the motivation to provide additional support for the sustainability of entrepreneurial ventures. Society is the contributor and beneficiary [23] of any entrepreneurial startups. Society is the consumer market that decides on the success or failure of any business entity. Entrepreneurial start-ups and society have a symbiotic relationship. The start-ups can benefit when a supportive ecosystem is provided by society while on the other hand, society benefits from the creation of employment along with the new products and services [24]. At the same time, the growing number of startups produce competitive offers, affecting the price structure of the market. These startups are the job creators for the work force in the society [25]. Gross domestic product (GDP) is one of the important parameters to assess the development of an economy [2]. It depends on the final production of products and services in the economy during a specific period. The higher the entrepreneurial startups, the higher the GDP; they are directly proportional to each other.

The current research aims to statistically gauge the importance of different determinants on a comparative scale to find the most important factor as the determining factors

for sustainability of entrepreneurial startups. Moreover, the outcome of this research will develop a model which may help academicians and researchers to focus on specific determining factors to explore more support with their education and research contributions [26]. The research will produce a model which can help budding entrepreneurs to evolve themselves according to those determinants. Entrepreneurial startups would be able to benefit from this work by reshaping their venture model to make it more efficient, which may lead to sustainability. These entrepreneurial ventures have the potential to significantly impact society in a positive way by developing innovative solutions that take care of social, economic, and environmental sustainability.

This research is presented with a systematic flow of study in seven sections. The start is an introduction which presents detailed information about the study and its requirements and benefits, following the presentation of the research [27]. It is the most important part in the sense of understanding the main theme of the study. The second section is the theoretical background, which has the literature support for the justification of existing concepts as decision criteria and determining factors for the selection of entrepreneurial startups. The third section is the methodological approach, explaining the measuring instrument, conceptual model, and the empirical and statistical approach adopted for the testing of the hypothesis in this study. The fourth section is the empirical justification of the hypothesis justifying the concept. The fifth section is the findings and results based on analysis of the framed conceptual model. The sixth section is the discussion and conclusion drawn from the research. The final section discusses the limitations of the research and opportunities for future research [28].

2. Theoretical Background

This section provides an extensive but narrowed approach exploring the criteria and factors responsible for the sustainability of ESs. For this purpose, the authors collected a series of published works explaining different dimensions of ESs. Employer business startups are disproportionately contributors to job creation and productivity growth. The complexity of the establishment going through trial and error leads to failure or the rarity of success [29]. The United States of America (USA) also has seen a fall in entrepreneurial startups post 2000 due to the necessity of innovation. There should be some structural changes to the business dynamism aligning with young entrepreneur requirements.

Societal challenges can be reduced with the intervention of ESs, but the implementation and suitability completely depend on the entrepreneurial ecosystem (EE). New startups face challenges with scalability, and societal change for venture sustainability. Studies are comparatively less interested in the social sustainability of ventures compared to economic and ecological sustainability [30]. However, innovative solutions, rapid decision making, flexibility, strategic focus, collective contribution, purpose driven vision, and stakeholder collaboration are the outcomes of challenges to becoming socially sustainable.

An organized network to cater the financial and knowledge support to new ventures is the most basic requirement [31]. A venture capital (VC) investment structure is the most advocated structure to strengthen the EE. There should be an arrangement to introduce entrepreneurs to other actors of the EE for better sustainability of the startup. Another study focuses on knowledge as a challenge for the innovation and development. It is an inherent challenge for such ventures to assess their knowledge capital which restricts them from expansion [32].

An ES must be capable enough to transform their organization with knowledge. It is the basic requirement to convert knowledge to innovation. However, there is a lack of commitment among actors and VCs, who are mostly interested in seeing the growth in their funds rather nourishing an entrepreneurial startup. Self-employment among young adults has been lucrative because of the drive by socio-economic, demographic, and geographical factors. It is evident from research that young age and male gender are positive components, while an increased educational development acts as a negative component [33]. The study reveals that startups created for self-employment are more

opportunity-driven rather necessity-driven, which raises questions about the suitability of venture.

Market uncertainty can be seen either positively or negatively, but in any case, the lack of confidence and exposure may drag the business toward many other challenges. Entrepreneurship is a learned skill that can be instilled through systematic entrepreneurship education and business interest with academic discipline enhancing competence as an entrepreneur, manager, and leader to establish and scale up a startup [34]. Desire to achieve, power, fulfilling the market demand, supporting government, risk tolerance, self-efficacy, etc. are key entrepreneurial motivations that act as determinants for an individual to have a desire that significantly influences the success of an entrepreneurial startup [35].

Individual psychological and social conditions are the major determinants for venturing and entrepreneurial startups. Entrepreneurial behavior has evolved as a new determinant shaped by self-perceptions and perceived subjective norms [36]. The success of an entrepreneurial startup depends on the EE also, where the pre-operationalized environment provides an easy launching pad for an entrepreneur. Generally, the contextual determinants are considered but equal importance is required for EE [37]. Environmental and individual conditions together determine entrepreneurial success. Environmental conditions, human capital, and social capital is determined by individuals' skills, experiences, and relationships [38]. Nevertheless, a detailed analysis and understanding of individual and entrepreneurial ecosystem components are required to filter for the separation of each component.

2.1. Entrepreneurial Startups Prerequisite

Entrepreneurship requires courage to risk startup failure instead of an earning as an employee. Entrepreneurial courage and optimism motivate an individual to approach investors with their convincing startup model. Any entrepreneurial venture needs funds or financial resources to establish a startup. A very common structure adopted is equity sharing or debt investment. An entrepreneur must plan well with the financing structure, where only equity, only debt, or a mixture of equity and debt can finance the venture. The right financing ratio varies for each venture depending on the entrepreneur's competence in financial decisions.

Equity investors assess the venture investment potential based on the entrepreneurial team, product/service, market, and financials. They evaluate the startup based on potential return on investment within an expected time duration [39]. Investors' decisions are data-driven using a machine learning approach for the equity investment decision-making process. Venture capitalists and angel investors evaluate a project on key criteria. However, each investor evaluates the project based on different criteria, generating a divergent approach in the decision-making process [40]. It is suggested to adopt the data-driven decision-making approach applying data science techniques.

Acquiring financial resources for a venture is a tiresome and time-consuming process. The equity investment mobilization rate is very low for new startups [41]. It is more about networking, and the future of the venture must be visible to investors' imagination. It is an essential requirement for an entrepreneur to develop a model to increase the likelihood and potential to encourage an investor's motivation for equity. Equity investment necessarily does not guarantee the startup success; many ventures with equity investment also failed in the European world [42]. However, it certainly decreases the risk of failure of an individual investment.

An initial startup faces more challenges for financial resources. Debt financing is a comparatively easier process in which to access financial support. However, debt is not a preferable option generally because of a heavy burden of interest payment in any case to the lender [43]. Nonetheless, the irony of the fact is that debt financing is inevitable for an early age startup. The ratio of debt financing may vary depending upon the proposed financial structure of the venture by an individual, depending on the nature of the venture. Debt is a burden that acts as resistance in growth of the startup. Empirical evidence shows

that the income of the venture is fundamental for its sustainability, which may help in debt reduction for the venture's financial sustainability.

However, venture financing is critical to decide and depends on many factors such as market conditions, economy, and legal and regulatory guidelines. Nonetheless, debt financing is assumed to be one of the best methods to generate financial sources for a startup [44]. Debt financing must be utilized smartly in the short-term and long-term to reduce interest payments. It is easier to pay back from sales earnings. Bank debt sourcing is challenging for a startup [45,46]. A bank's evaluation criteria look at the equity holding and financial valuation of the venture. Moreover, the entrepreneur's credentials and business operating history restrict banks in debt financing a startup. In the case of urban startups, the challenges are greater in convincing authorities to provide finances [47].

However, a combination of debt and equity financing can be an advantageous proposition for a nascent startup. The ratio may keep changing over the business life cycle and other conditions to keep the venture financially healthy [48]. A new startup should aim to create a value proposition and must be able to increase valuation by reducing the total cost of invested capital. Venture capital firms (VCs) are the best to evolve and shape a new venture with their financing support and non-financial nurturing at the same time. In simple terms, equity financing preference defines an entrepreneur's confidence with their own venture [49]. In this case, the entrepreneur looks for a smaller debt financing. Capital structure is an individual choice of preference of debt over equity or vice versa.

Entrepreneurial startup decision criteria are constituted of funding or financing support to the startup. The current research looked for many studies discussing financing opportunities and implications. Funding is mostly divided into two criteria: debt and equity. Investors chose either of the options or sometimes a mix of both criteria [50,51]. After extensively exploring existing financing structures, the available funding to startups is still unclear in a broader sense. An entrepreneurial startup may have a comparatively weak business proposal, but the rejection of the application for the fund kills the venture at an early stage of conceptualization.

The research in the area of financing preferences and the hierarchy considered by pecking order theory makes the clarification of the choice of the owner for their financing decision. Belief in their own business keeps them motivated for their own equity rather external financing [52]. It shows that the orientation of the firm is also very important; there is a comparatively smaller debt than the equity in the case of a high-worth business. In one of the studies, the findings report that a lower level of debt shows strong support for the "credit rationing" theory. These findings may be interpreted such that almost the same level of business borrowers but with a lower level of financing structure will not receive the credit. It is a challenge for minority borrowers in terms of credit quality rating, the chance of approval is much lower when they apply for a loan.

It is well understood that capital structure is the personal preference of an entrepreneur. Here again, the evidence for the owner preference on equity and debt ratio is about the attitude of the decision maker considering the risk factor and the capability to play on debt and equity requirements. In fact, the personal choice may have a better capital structure for private business entities [52]. The applicability of the capital structure theories is crucial for comparing financing decisions, as it looks at an overview for private companies. Moreover, the effect of capital structure components is also very important for private firms, which impacts owner preferences of investment criteria. The study of existing capital structure for firms may be a more structured way for newly established firms, where the cited challenges can be fixed in some other way. Business implementation needs information and communication technology [53].

2.2. Entrepreneurial Startups Enactment

Entrepreneurial startups mushroom on the ground with a conducive support system. The motivation of an individual is certainly an internal factor but the compelling stimuli are the external factors. These internal and external factors are considered as internal

determining factors and external determining factors. An extensive exploration of existing determining factors was conducted to develop the concept. Factors accepted in existing literature were further tested empirically to be adopted into this study. The methodology section critically explains the process and requirement for evaluation.

The economic situation of a country is a major determinant to attract entrepreneurial startup. Entrepreneurial ventures have a proven track record of job creation and contribution to gross domestic product (GDP). More positively, they create a competitive advantage for the country [54]. In contrast to this, the possibility of entrepreneurial startup is possible in a country with a stable economy and economy with the vision to grow. However, research shows there are different types of ventures which may survive in different economic situations [55]. The macroeconomic environment of the country and commitment to support entrepreneurial startup are proportional to each other.

The tax system of a country is the determinant to make or break the financial structure. The relationship between tax system and business startups has been tested [56]. An entrepreneur's decision to persist with a startup is largely challenged by the tax system. Economic freedom with tax exemption reduces the burden on a newborn firm. Research has witnessed the likelihood of a higher density of entrepreneurial startups in a tax-free country and conversely, a higher tax decreases entrepreneurial participation in the economy. A country must create a culture providing incentives in the system of laws and policies. Regulatory freedom is the same important for a startup [57]. Trust and positive motivation towards venture creation can be possible by implementing the legislative changes. In the case of innovation-driven startups, there needs to be legal protection and regulatory support to prevent unexpected failures in the process of development [58].

Market competition can be seen in both senses, as positive and negative. A healthy competitive market generates a wider clientele and opportunity to grow [59]. At the same time, tough competition with the offering narrows the path for a new startup unless it is innovative with differentiation. An entrepreneur looks for the existence of fair competition in the market with some window to showcase their offerings. Financial offerings in the economy from government and private investors in the form of debt or equity attract entrepreneurs [60]. Geographic region is a determinant for required resources with uninterrupted supply, keeping the startup sustainable [61,62]. The competent labor requirement for the venture is a problem, which is not easy to solve. Labor force is not about the human being, but the employable and capable labor available in the market [63].

Internal determinants are divided into two parts as individual preferences and individual traits. Preferences are internal motivation which comes with intuition or experience. In the lack of job satisfaction, the motivation for one's own startup germinates [64]. Professional experience builds competence and confidence to establish one's own startup. The success rate of this is not very high, but a sensible step and continuous learning brings success [65]. Humans by nature want to be independent and seek autonomy, which appears achievable with entrepreneurial ventures. Individuals' self determination to work independently is a strong driving force to be an entrepreneur [66]. Risk-taking abilities and willingness to take risks is another important determinant. Entrepreneurial ventures are always risk involved, where the future is unknown. A compensatory return on risk with any venture acts as a behavioral determinant for startups [32,35].

Entrepreneurship is a choice in some cases with irregular working hours, which does not remain bounded within working hours [67]. Family and friends act as influencers for any career choice. The same applies with the choice to undertake an entrepreneurial startup and they become the informal business partners also [68], and sometimes they become investors too [52]. Entering one's own startup on a small scale is a good opportunity to develop one's own skills as an entrepreneur before jumping into something big [69], which at least connects with many entrepreneurs and strengthens networking. Another important self-preferred internal determinant is the opportunity to showcase one's own business idea. An entrepreneur does not always necessarily dream of a big picture with the business,

rather most of them believe in showcasing their idea and searching for potential with value creation [70].

Another set of internal determinants is individual traits, which is not the same in everyone, but some are available in every human being, and many can be learned over time. The skill of exploration of potential market opportunities exploration excites an individual to establish an entrepreneurial startup [71,72]. Creativity and innovation are the most important requirements for any enterprise to bring differentiation. A startup with creativity and innovation has a higher potential to be successful [73]. Decision-making delegation makes one feel competent, trustworthy, and authoritative [74] in their own venture. Change is constant, entrepreneurship brings change every now and then during executions for an entrepreneur [75]. A leadership choice is best suited to an entrepreneur [34,76] to lead a self-life, business, and a life of dependent on their venture [77].

Ethical practices are a prerequisite for a long-term sustainable venture. An individual believing and following ethics would love to own the business to work with ethical values [78]. A communicative and good-at-networking person can establish and expand the business [79]. Resolving conflict is a skill always required with an entrepreneur [80]. Culture is not same for everyone, one's own personal culture preference and motivation to implement with others inspires them to setup a venture [81]. The behavior of cooperation in achieving goals makes an entrepreneur successful and establishes a sustainable venture [82]. An orientation to deliver result is a committed approach for an entrepreneur [83]. Conscientious and reliable characteristics energize an individual for their contribution [84]. Stress exists in an entrepreneur, the ability to cope with stress can keep an entrepreneur calm in challenging situation [15]. An entrepreneur must possess a flexible nature as per requirements [85].

3. Methodological Approach

The skeleton and structure of the research process is the backbone of good research. Here, this section discusses the detailed view on the adopted methodological approach [86]. The complete research methodological approach encompasses an organic process of understanding of research design, type of study, method selected, scope of the study, sampling design, sample size, measuring instrument, and analysis techniques and tools applied [28,87,88]. The research problem is framed in an articulated manner to keep aligned with the introduction and theoretical background section. At the same time, research questions and objectives are formulated to keep the study controlled towards the aforesaid orientation. Furthermore, a conceptual model is proposed, and some logical hypotheses assumed for the requirement of justification of the study.

The authors chose the descriptive research design approaching the research problem qualitatively [89]. Entrepreneurial startups' sustainability decision criteria and the determining factors are the outcome of an entrepreneurial ecosystem, which is still in the process of exploration and expansion. Nonetheless, the chosen concepts for this study are some explored and expected variables. This research tests those variables for revalidation with empirical data applying statistical tools. It is a cross-sectional study conducted in a phased distribution, where the first phase was the conceptualization and variables selection [90]. The second phase was instrument development and the data collection. The third phase is the reporting of the study. Eighteen months were devoted to this complete process of all three phases [91–93].

The survey method adopted a questionnaire as an instrument to collect data from entrepreneurial startups [94]. A purposive sampling design of non-probability sampling is the best suited and most acceptable for choosing the right respondent. A sample size of 124 valid respondents provided data which are incorporated into the study [95,96]. The questionnaire applied six different segments with relevant items related to demographical and conceptual variables. The conceptual variables were framed based on the extraction from existing literature and measured on a five-point Likert scale for structured items. The data collection was implemented from December 2022 to February 2023 for a period

of three months. The chief executive of the organization was the respondent to fill out the questionnaire.

The statistical tests of one-sample Kolmogorov–Smirnov test, automatic linear modeling, importance matrix, correlation, and regression were applied to validate the conceptual model with the testing of hypotheses [97,98]. The study can be devised as conceptual scope, geographical scope, and industrial scope. This research is themed around the decision criteria (country economic situation, tax system, law, competition, funding opportunities, and region) and determining factors (skill in identification and exploitation of potential market opportunities, creativity and innovation, delegation of decision-making, openness to change, leadership, ethics, communication, resolving conflict, personal culture, cooperation achieving goals, pursuit of results, consciousness and reliability, stress resistance, and flexibility) as two major conceptual variables. The study was conducted in the West Pomeranian voivodship mostly named as Szczecin city in Poland. Entrepreneurial startups are the core of industrial scope, focused to the specific discussion only with new ventures [63,78,84].

A comprehensive discussion of the concept and underpinning variables is provided as the theoretical background section. The introduction section also presents the current and past situation of the scenario uncovering each variable as separate paragraphs. There are many concepts and models presented justifying the entrepreneurial research from many multidimensional approaches [99–101]. As stated in earlier sections about the aim and scope of the study with a cushioned background about the selected concept and the specific dimension of entrepreneurial startups, the study requires a structured research problem with the clarity of thought to make it clear for other researchers.

The study frames a specific research problem that is based on detailed discussions. Entrepreneurship and entrepreneurial startups are continuous phenomena required for every economy. The lack of an efficient ecosystem and incompetence of an entrepreneur causes the entrepreneurial startup to fail [87,91]. Therefore, the main problem requires an assessment of decision criteria and determining factors; categorizing them according to their importance may provide the requirements to lead a successful entrepreneurial startup contributing to social inclusion and capacity building.

Solving the above-stated research problem needs an intriguing research questions, which must be able to extract the right answers providing an acceptable solution to the problem [102–104]. The framing of the research questions is presented as: (1) What are the hidden components of decision criteria of successful entrepreneurial startups? (2) What are the underlying components of the determining factors of successful entrepreneurial startups? (3) What are the correlated components of decision criteria and determining factors of entrepreneurial startups?

The research objective is the predetermined thought based on the research problem and question framed [45,87,91,105]. The current study is also presented as a set of objectives to approach the research problem: (1) To know the importance of each decision criterion and determining factor of entrepreneurial startups. (2) To statistically revalidate the correlations of components of decision criteria and determining factors of entrepreneurial startups. (3) To measure and justify the requisites for a successful entrepreneurial startup with respect to decision criteria and determining factors components. The proposed conceptual model is drawn based on the understanding of the concept to validate the correlation and effect of decision criteria on determining factors of entrepreneurial startups (Figure 1).

Here, the study assumes some hypotheses, written for statistical testing. Based on the above theoretical exploration and the structural process for hypothesis creation, the hypotheses framed are as follows:

H1: *The decision criteria and determining factors of entrepreneurial startups are correlated.*

H2: *A country's economic situation affects the determining factors of entrepreneurial startups.*

H3: *The tax system of decision criteria influences the determining factors of entrepreneurial startups.*

H4: *Law is one of the most important criteria affecting entrepreneurial startups' determining factors.*

H5: *Competition is the compelling criterion for determining factors of entrepreneurial startups.*

H6: *Funding opportunities are decisive criteria affecting the determining factors of entrepreneurial startups.*

H7: *Region as a decision criterion affects the determining factors of entrepreneurial startups.*

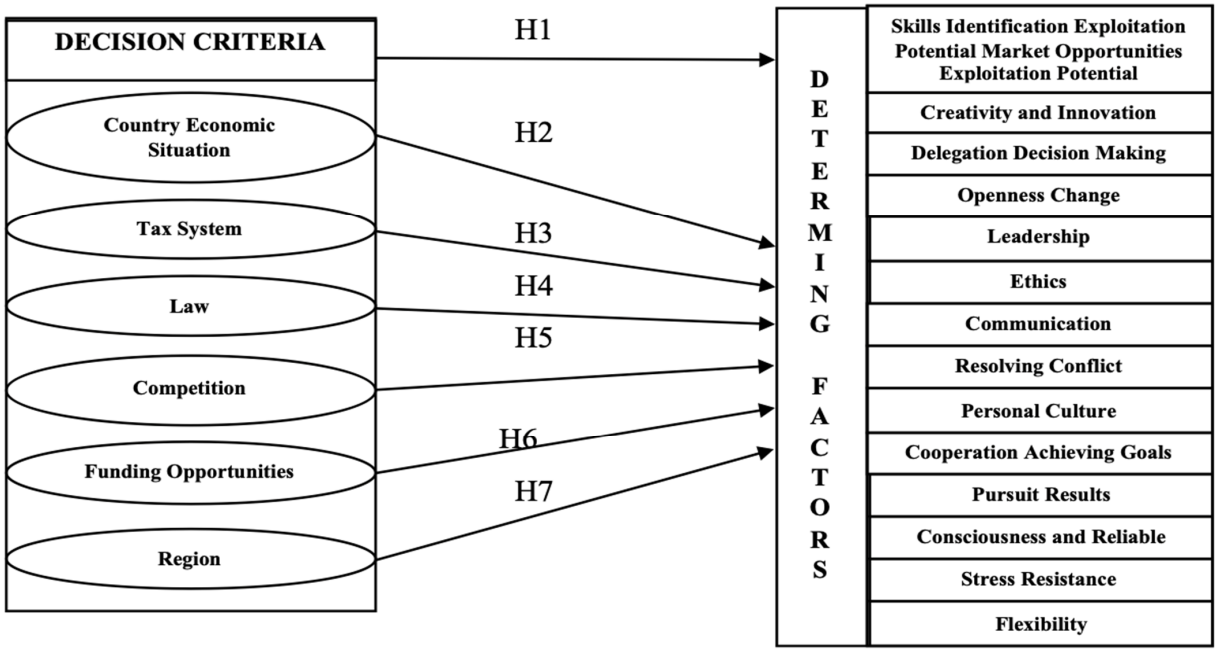

Figure 1. Proposed conceptual model. Source: Author's contribution.

4. Empirical Analysis and Hypothesis Testing

This section presents the empirical support of the concept based on data collected through the survey questionnaire. The research tested the acceptance of conceptual variables applying the one-sample Kolmogorov–Smirnov test [106] conducted on the dataset (Tables 1 and 2). A non-parametric test was chosen because of the non-parametric distribution of the data. The test was applied to check if the sample is showing a normal distribution. The most important analysis for this study was the automatic linear modeling (ALM) of the regression analysis to rank predictors based on their importance. Lastly, the correlation and regression analysis was conducted to test the hypotheses statistically based on data for their acceptance or rejection in this study [87].

The analysis presented in the above table (Table 1) is for the total sample of 124 respondents. This reveals that the population is not normally distributed as the asymptotic p value is below 0.05 as the selected level of significance for all six decision criteria variables. The Kolmogorov–Smirnov Z value for each variable is presented in decreasing order as: law—5.127 > funding opportunities—3.874 > region—3.505 > country economic situation—3.410 > tax system—3.275 > competition—3.274. Therefore, it can be interpreted that the influence of law is highest while making decisions, followed by the influence of the funding opportunities available to the population. The role of region as a decision-making criterion is also important and tax system as well as competition are close to each other when it comes to influencing the decision of the respondents. These variables are qualified for further tests and analysis.

Table 1. Decision criteria factors one-sample Kolmogorov–Smirnov test.

Decision Criteria as Testing Parameter	Exponential Mean	Most Extreme Differences			Kolmogorov–Smirnov Z	* Asymp. Sig. (2-Tailed)
		Absolute	Positive	Negative		
Country Economic Situation	2.89	0.306	0.177	−0.306	3.410	0.000
Tax System	2.87	0.294	0.175	−0.294	3.275	0.000
Law	3.24	0.460	0.214	−0.460	5.127	0.000
Competition	3.13	0.294	0.202	−0.294	3.274	0.000
Funding Opportunities	2.34	0.348	0.118	−0.348	3.874	0.000
Region	2.65	0.315	0.151	−0.315	3.505	0.000

* Significant at the level of 0.05. Source: SPSS 25 Outcome.

Table 2. Determining factors one-sample Kolmogorov–Smirnov test.

Determining Factors as Testing Parameter	Exponential Mean	Most Extreme Differences			Kolmogorov–Smirnov Z	* Asymp. Sig. (2-Tailed)
		Absolute	Positive	Negative		
Skills in the Identification and Exploitation of Potential Market Opportunities	2.63	0.316	0.149	−0.316	3.523	0.000
Creativity and Innovation	2.54	0.325	0.140	−0.325	3.624	0.000
Delegation of Decision-Making	3.50	0.322	0.240	−0.322	3.590	0.000
Openness to Change	3.11	0.369	0.201	−0.369	4.111	0.000
Leadership	3.22	0.267	0.211	−0.267	2.975	0.000
Ethics	2.94	0.288	0.183	−0.288	3.207	0.000
Communication	2.65	0.315	0.151	−0.315	3.505	0.000
Resolving Conflict	3.44	0.344	0.234	−0.344	3.828	0.000
Personal Culture	3.00	0.414	0.189	−0.414	4.610	0.000
Cooperation Achieving Goals	2.97	0.286	0.185	−0.286	3.185	0.000
Pursuit of Results	2.67	0.312	0.154	−0.312	3.479	0.000
Consciousness and Reliability	2.64	0.316	0.150	−0.316	3.514	0.000
Stress Resistance	3.13	0.311	0.202	−0.311	3.463	0.000
Flexibility	2.94	0.317	0.182	−0.317	3.526	0.000

* Significant at the level of 0.05. Source: SPSS 25 Outcome.

The above analysis presented in the above table (Table 2) reveals that the population is not normally distributed based on the data of 124 respondents, as the asymptotic *p* value is below 0.05 for all fourteen determining variables. The Z value for each variable is presented in decreasing order as: personal culture—4.610 > openness to change—4.111 > resolving conflict—3.828 > creativity and innovation—3.624 > delegation of decision-making—3.590 > flexibility—3.526 > skills in the identification and exploitation of potential market opportunities—3.523 > consciousness and reliability—3.514 > communication—3.505 > pursuit of results—3.479 > stress resistance—3.463 > ethics—3.207 > cooperation achieving goals—3.185 > leadership—2.975. Therefore, it can be interpreted that the influence of personal culture is highest as determining factor followed by the influence of the openness and change available to the population. The determining factors of resolving conflict and creativity and innovation are also close to each other. The lowest influence among determining factors is of the leadership. However, all fourteen variables are qualified for further testing and analysis.

The importance matrix is the outcome of regression analysis applying automatic linear modeling (ALM). The main idea behind this test is to present variables in a hierarchical order based on their importance. The matrix (Table 3) is presented for the variables of decision criteria according to their importance within themselves taking the decision criteria as target. The importance value is calculated, and the ranking is presented in the decreasing ranking order region > competition > funding opportunities > country economic situation > tax system > law, showing that within the condition of decision criteria, region is the most important but law is the least important for entrepreneurial startups in Poland.

Table 3. Importance matrix with decision criteria as target.

Predictors	Importance	Ranking
Region	0.231	1st
Competition	0.206	2nd
Funding Opportunities	0.149	3rd
Country Economic Situation	0.149	4th
Tax System	0.141	5th
Law	0.124	6th

Significant at the level of 0.05. Source: SPSS 25 Outcome.

The above presented table (Table 3) is based on the outcome from Statistical Package for Social Sciences, Version 23 (SPSS 23) as the figure shows (Figure 2), which has the more authenticated and trustworthy reporting. Here, all six variables are accepted in the importance ranking.

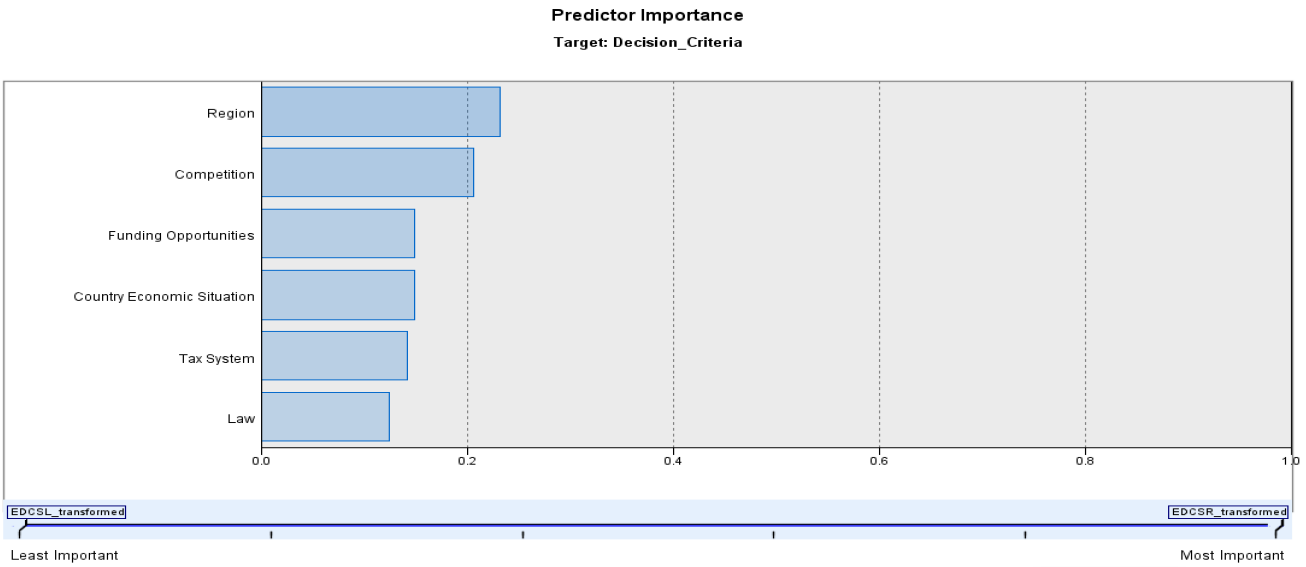

Figure 2. Importance matrix with decision criteria as target. Source: SPSS 25 Outcome.

Furthermore, the analysis was conducted for determining factors with the target being the underlying fourteen variables according to their importance rankings. The importance matrix was prepared based on the ALM outcome of regression analysis. The SPSS 23 outcome rejected six variables from the importance listing. Only eight variables were accepted for the importance (Table 4) within the determining factors.

Table 4. Importance matrix with determining factors as target.

Predictors	Importance	Ranking
Consciousness and reliability	0.404	1st
Pursuit of Results	0.157	2nd
Flexibility	0.148	3rd
Stress Resistance	0.134	4th
Skills in the Identification and Exploitation of Potential Market Opportunities	0.042	5th
Leadership	0.041	6th
Creativity and Innovation	0.036	7th
Delegation of Decision-Making	0.034	8th

Significant at the level of 0.05. Source: SPSS 25 Outcome.

The eight variables were ranked with the decreasing importance value as consciousness and reliability > pursuit of results > flexibility > stress resistance > skills in the identification and exploitation of potential market opportunities> leadership > creativity and innovation > delegation decision-making (Table 4), and the decreasing ranking order too. The table is created based upon the SPSS outcome (Figure 3), which clearly shows the listing from the most important to the least important. Consciousness and reliability is considered the most important variable, though the delegation decision-making is the least important variable in the selection of entrepreneurial startup determining factors.

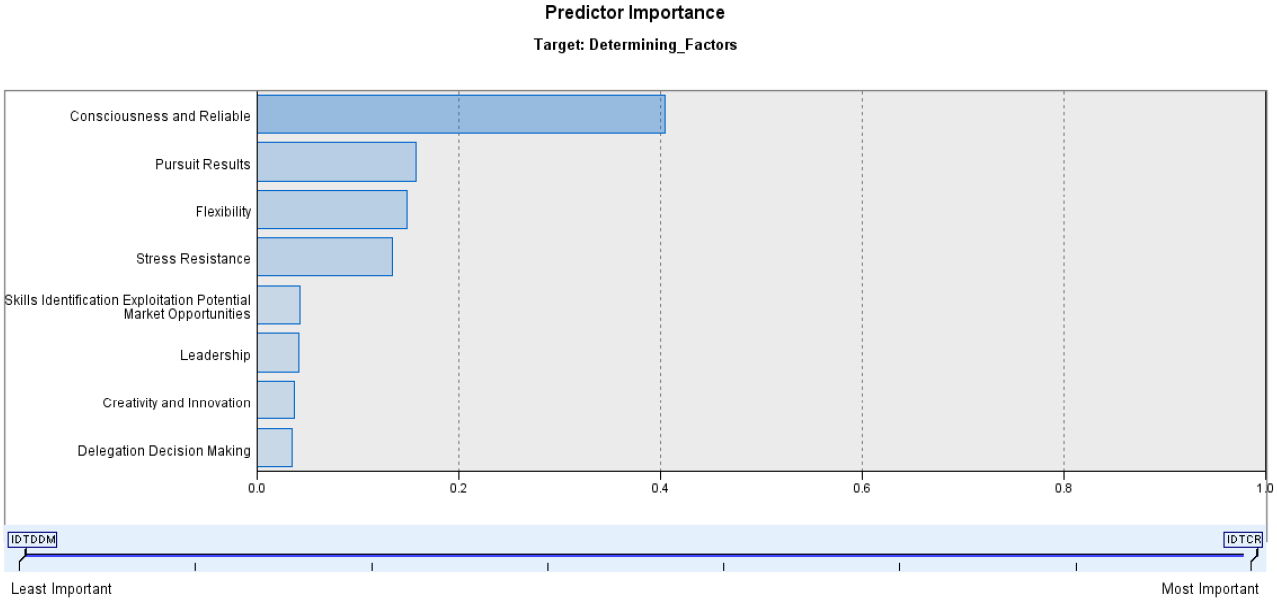

Figure 3. Importance matrix with determining factors as target. Source: SPSS 25 Outcome.

The next analysis in the same process was conducted to assess the importance of the six variables of decision criteria with the determining factors target (Table 5). This is the third analysis of the same kind for this specific process of categorization of variables for their importance. The result rejected one of the variables such that five variables are ranked in the decreasing order of importance as region > competition > funding opportunities > tax system > country economic situation (Table 5). Law was lost in its importance as the affecting variable for the determining Factors. The table is reported based on the outcome of SPSS 23 (Figure 4), which clearly shows that region is the most important variable considering determining factors, whereas the country economic situation is the least important variable in consideration of entrepreneurial startups.

Table 5. Importance matrix of decision criteria with determining factors as target.

Predictors	Importance	Ranking
Region	0.339	1st
Competition	0.203	2nd
Funding Opportunities	0.201	3rd
Tax System	0.149	4th
Country Economic Situation	0.108	5th

Significant at the level of 0.05. Source: SPSS 25 Outcome.

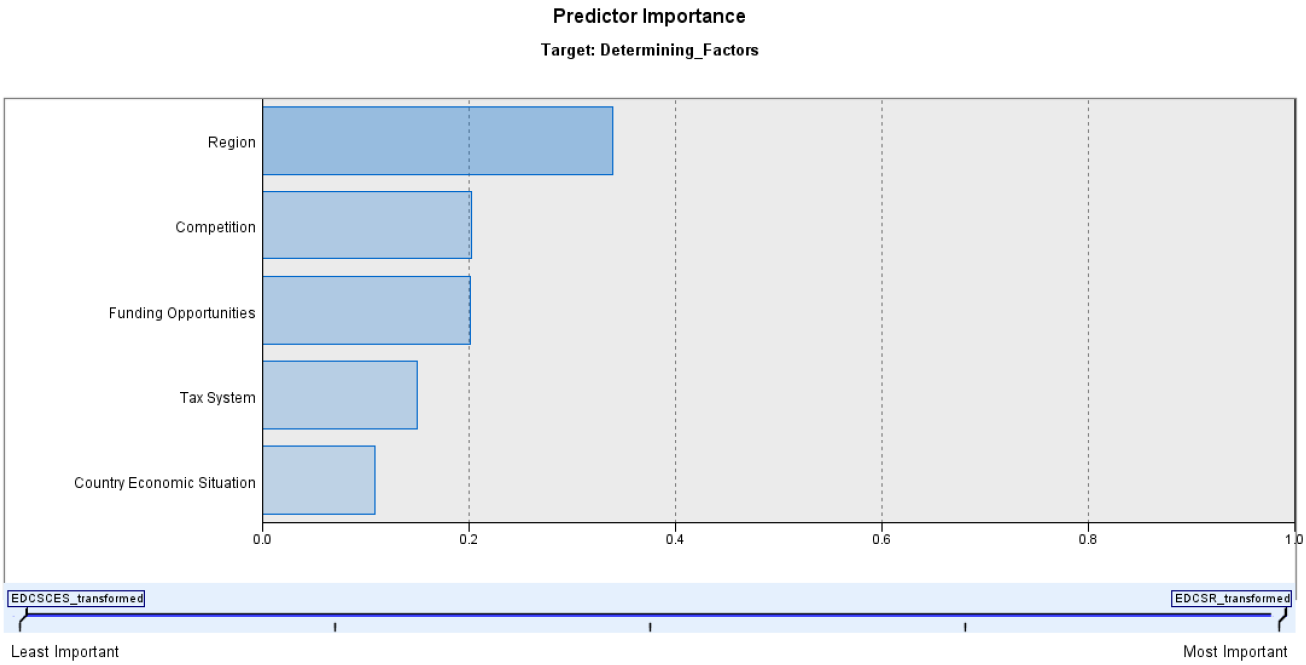

Figure 4. Importance matrix of decision criteria with determining factors as target. Source: SPSS 25 Outcome.

The last analysis is the correlation and regression analysis for the hypothesis testing. Based on the proposed conceptual model, there are seven hypotheses, framed as H1–H7. The regression analysis was specifically conducted choosing each independent variable, and the corresponding dependent variable for the assessment of correlation value (R/Beta), and the effect value (B) is presented as a tabular form (Table 6) for concise and clear understanding of the test.

Table 6. Hypotheses testing with correlation and regression.

Hypotheses	Independent Variable	Dependent Variable	R/Beta	B	* Sig.
H1	Decision Criteria	Determining Factors	0.180	0.023	0.045
H2	Country Economic Situation		0.180	0.013	0.046
H3	Tax System		0.206	0.015	0.022
H4	Law		0.124	0.010	0.170
H5	Competition		0.160	0.011	0.077
H6	Funding Opportunities		0.010	0.001	0.912
H7	Region		0.036	0.003	0.691

* Significant at the level of 0.05. Source: SPSS 25 Outcome.

There are seven hypotheses framed where the dependent variable of the determining factors is fixed for all cases (Table 6). The H1 (decision criteria) shows a significant outcome with a very low R and B. H2 (country economic situation) and H3 (tax system) are under the acceptance level of the *p* value showing significant results but the same as H1 showing a very weak R and B. H5 (competition) is somehow near to acceptance range of *p* value but similarly very weak in R and B, like the other hypotheses. H4 (law), H6 (funding opportunities), and H7 (region) are insignificant with their *p* values and a weak value of R and B makes these three hypotheses very incompetent for acceptance.

5. Findings and Results

The research analysis has provided a multidimensional view on the data with statistical tests justifying the chosen concept [88,107,108]. The current section is dedicated to the findings and results of the study. The first analysis is the one-sample Kolmogorov–Smirnov test which tests the variable acceptance of the dimensions of decision criteria (Table 1) and determining factors (Table 2). Decision criteria has six variables with exponential mean values are in between 2.34 to 3.24, and the absolute difference values are in between 0.294 to 0.460 with asymptotic significant values $p < 0.05$ shows that there is no goodness-of-fit of model. Similarly, determining factors were analyzed with fourteen variables with exponential mean values are in between 2.63 and 3.50, and the absolute difference values are between 0.267 and 0.414 with asymptotic significant values $p < 0.05$ showing that there is no goodness-of-fit of the model. Therefore, neither dimension is showing the normal distribution of data for their six and fourteen underlying variables, respectively.

The second analysis is the justification for the acceptance of underlying six variables and fourteen variables for decision criteria (Table 3 and Figure 2) and determining factors (Table 4 and Figure 3), respectively, for their importance and ranking in their specific category based on the ALM regression. However, all six variables of the decision criteria were accepted and ranked as the importance of 0.231 as the highest for region to the 0.124 for law as the lowest value. For the determining factors, all fourteen variables were tested but only eight were accepted as important factors, with the highest value for consciousness and reliability with 0.404, whereas the delegation of decision-making scored 0.034 as the lowest score and the 8th and final rank in the acceptance series. Six variables from determining factors, openness to change, ethics, communication, resolving conflict, personal culture, and cooperation achieving goals, lost their acceptance for ranking in the importance matrix.

Findings from the third analysis of LAM testing for the variables' importance in decision criteria with respect to determining factors as target variable (Table 5, and Figure 4) showed that five variables were accepted in the importance ranking out of six variables. The variable left out from the ranking is law, showing the lack of importance for this specific criterion of variables. The last analysis was performed for the hypothesis testing of the conceptual model to modify the concept for the better understanding of the budding entrepreneurs. There were seven hypotheses framed, but only H1, H2, and H3 were accepted as the concept within the $p < 0.05$ significance value. The four hypotheses H4, H5, H6, and H7 were rejected as the concept reasoning $p > 0.05$, showing an insignificant value.

Based on the findings, we can create an understanding of the concept. The results are presented for the two broader concepts as decision criteria and determining factors separately, then together for the best possible outcome and the modified conceptual model. Based on the one-sample Kolmogorov–Smirnov test for decision criteria with six variables shows the complete acceptance, at the same time determining factors with fourteen variables also shows the acceptance of all. The importance matrix of regression, automatic linear modeling (ALM) for the six variables showed the acceptance of ranking for all six variables from the decision criteria, ranked from the most important to the least as shown below region > competition > funding opportunities > country economic situation > tax system > law. The importance matrix of the fourteen variables from the determining factors show only the acceptance for eight variables for their ranking from the most important to the least, ranked with decreasing importance value as consciousness and

reliability > pursuit of results > flexibility > stress resistance > skills in the identification and exploitation of potential market opportunities> leadership > creativity and innovation > delegation of decision making.

The novelty of the study justified through the tested conceptual model with the importance matrix for the six variables of decision criteria with the determining factors target shows the only five variables as important and ranked them as the most important to the least important, presented in decreasing order as region > competition > funding opportunities > tax system > country economic situation. The correlation and regression analysis are the resulting outcome with the acceptance of three hypotheses, though only five variables for decision criteria, and eight variables for determining factors were arranged in the importance ranking and presented as the modified model (Figure 5).

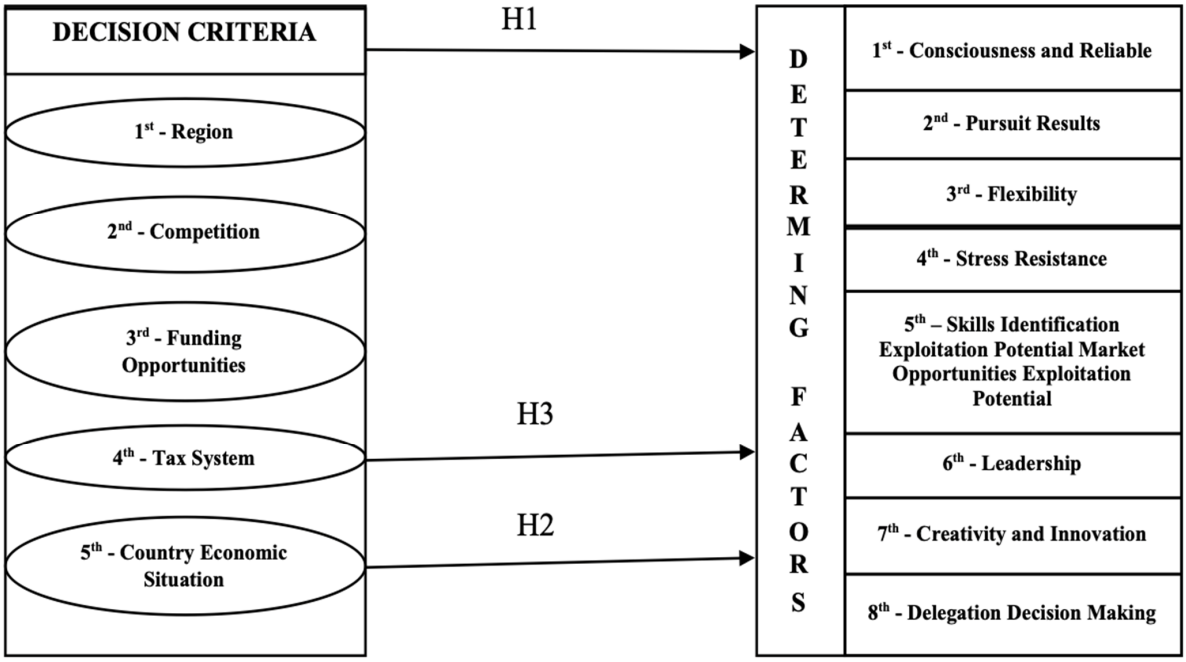

Figure 5. Tested conceptual model. Source: Author's contribution.

6. Conclusions, Limitations, and Future Research

The research was presented in the aforesaid flow of work from conceptualization to analysis, and justification of the concept. Here, this section has a broader discussion on the outcome and results. The main discussion is about the solution to the research problem and research question as the segmented approach to the problem with a systematic approach, which is satisfying all the research objectives by the testing of hypotheses and responding to research questions. The analysis section is the empirical support with statistical justification to the concept, which further shapes the findings, discussion, and conclusion [28,109,110].

The study framed a research problem which is to measure the ecosystem variables as decision criteria for establishing a more efficient ecosystem [111], and at the same time, to find the entrepreneurial traits as determining factors for an individual, as the requirement for an entrepreneurial startup. The problem was solved based on data collected and reported at the findings and results section. The study observes that there are only five variables of the decision criteria accepted for their importance, which are region > competition > funding opportunities > tax system > country economic situation, in the decreasing order of their importance, whereas the eight underlying variables of determining factors of consciousness and reliability > pursuit of results > flexibility > stress resistance > skills in identification and exploitation of potential market opportunities > leadership > creativity and innovation > delegation decision-making, were the only ones accepted, and are ranked here in decreasing importance.

The research questions answered to reach the problem as region, competition, funding opportunities, tax system, and country economic situation were the five major components of the decision criteria. The determining factors were the eight components named as consciousness and reliability, pursuit of results, flexibility, stress resistance, skills in identification and exploitation of potential market opportunities, leadership, creativity and innovation, and delegation of decision-making of a successful entrepreneurial startup. There are only two correlated components of decision criteria are tax system and country economic situation with the determining factors of entrepreneurial startups.

The research objectives are always the core of the execution, which are reached by knowing the importance of each decision criteria and determining factors of entrepreneurial startups with their presentation as the decreasing order of importance. The statistical revalidation of correlations of components of decision criteria and determining factors of entrepreneurial startups conducted and presented as findings showed that only two components of decision criteria, tax system and country economic situation, are correlated with the determining factors. The justification of the requisites for a successful entrepreneurial startup with respect to decision criteria are five in their importance, and determining factors as eight in their importance are presented as a modified model with their relationships. The above-mentioned criteria impact the growth of start-ups in multiple ways and determine the creation of inclusive opportunities for the population.

Hypotheses are the assumptions against which the reality is checked; testing showed that there are only three hypotheses accepted as the concept, which are further modified and presented with their importance ranking and correlations. The accepted concepts are H1: decision criteria and determining factors of entrepreneurial startups are correlated, H2: country's economic situation affects the determining factors of entrepreneurial startups, and H3: the tax system of the decision criteria influences the determining factors of entrepreneurial startups. The study concludes that there are five components of decision criteria: region, competition, funding opportunities, tax system, and country economic situation, whereas the eight components of consciousness and reliability, pursuit of results, flexibility, stress resistance, skills in identification and exploitation of potential market opportunities, leadership, creativity and innovation, and delegation decision-making of determining factor are required for a successful entrepreneurial startup. The study can benefit new startups by helping them to understand the ecosystem and they can prepare themselves for the different situations, which may allow for social inclusivity with capacity building among entrepreneurs [24,77,111,112]. All the hypotheses are justified with the theory where the importance and ranking with comparison of each criterion is provided as the contribution of the study.

The research process has been a time-consuming exercise to conceptualize the idea and structure the flow of work. For this study, the major challenge faced was to find respondents engaged in an entrepreneurial startup with a considerable success despite being a new startup. Selecting entrepreneurs was not enough, but to get their time to fill up the responses on the asked questionnaire was hard. The study would have collected more samples, but this became a major challenge. A different statistical analysis would have been applied if the sample had been comparatively bigger in number. This may give some different views on the study. Overall, it can be concluded that entrepreneurial startups have a responsibility to contribute towards social inclusion and capacity building. The contribution can be in a variety of ways by adopting different strategies policies and practices that promote accessibility, equity, and opportunity for all.

The future research will be conducted on a bigger sample size to achieve greater accuracy of responses. The same questionnaire will be implemented in different countries to get the status of the continent and the world in the situation of entrepreneurial startups. Furthermore, a comparative analysis among countries can provide data on the contribution and situational understanding of different countries. It may provide an idea to understand the most successful entrepreneurial startups of different countries and those ecosystem

variables and individual traits can help to train the lower-performing countries for the success of their entrepreneurial startups.

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Institutional Review Board Statement: Our research is based on the random selection of respondents. They filled it by their own choice. This research was not applied to humans in a way to harm anyone. We did not require any approval; moreover, at the institution, there is no such body to provide any consent in India. This is our individual selection of the area and topic of research. We take responsibility for the implementation of the research and assure you that Ethics Committee or Institutional Review Board approval is not required.

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