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Entrepreneurial Sustainability: How Emotional Intelligence Shapes Startup Growth Through Quality Investment Timing and Digital Strategy Integration

Abdulrahman Abdullah Alrahmani ¹

¹ Department of Management Information Systems-College of Administration and Economics-University of Basrah, Basrah, Iraq

abduallahman.abdullah@uobasrah.edu.iq ¹

Abstract: This study examines the role of emotional intelligence, quality funding timing, and virtual method within the growth and sustainability of startups. In the modern enormously competitive and constantly evolving business surroundings, those elements have come to be crucial for entrepreneurial success. The studies investigate each the direct and indirect results of those variables, offering insights into how emotional intelligence affects startup overall performance via the mediation of strategic funding selections and virtual transformation initiatives.

To gain the targets of the have a look at, the researcher adopted a descriptive-analytical method and utilized a questionnaire as a device for records series, which yielded 366 responses from entrepreneurs and employees in startup companies in Iraq. The data became analyzed using structural equation modeling (SEM) via the SmartPLS4 software program. The consequences monitor that emotional intelligence has a widespread impact on startup increase, with a clean pathway thru each first-rate investment timing and digital approach. Furthermore, the have a look at demonstrates that whilst emotional intelligence directly contributes to Entrepreneurial Sustainability, it also affects lengthy-time period sustainability via the mediating results of these strategic factors. The analysis further highlights that first-class investment timing and virtual method play a crucial function in improving each startup increase and sustainability, confirming their mediating role within the dating between emotional intelligence and entrepreneurial success.

This contributed to a deeper knowledge of ways intangible assets, including emotional intelligence, shape the trajectory of startups, with a focus on their function in strategic selection-making and the lengthy-term fulfillment of entrepreneurial ventures.

Keywords: Emotional Intelligence, Quality Investment Timing, Digital Strategy, Startup Growth, Entrepreneurial Sustainability.

الاستدامة الريادية: كيف يُشكّل الذكاء العاطفي نمو الشركات الناشئة من خلال توقيت الاستثمار
الجيد وتكامل الاستراتيجية الرقمية

د. عبدالرحمن عبدالله الرحماني¹

¹ قسم نظم المعلومات الإدارية-كلية الإدارة والاقتصاد-جامعة البصرة، البصرة، العراق

المستخلص: تستكشف هذه الدراسة دور الذكاء العاطفي، وتوقيت الاستثمار الجيد، والنهج الرقمي في دعم نمو واستدامة الشركات الناشئة. ففي ظل بيئة الأعمال الحديثة التي تتسم بالتنافسية العالية والتطور المستمر، أصبحت هذه العوامل حاسمة لنجاح المبادرات الريادية.

تتناول الدراسة التأثيرات المباشرة وغير المباشرة لهذه المتغيرات، وتقدم رؤى حول كيفية تأثير الذكاء العاطفي على أداء الشركات الناشئة من خلال التوسط بقرارات التمويل الاستراتيجي ومبادرات التحول الرقمي. ولتحقيق أهداف الدراسة، اعتمد الباحث على المنهج الوصفي التحليلي، مستخدماً الاستبيان كأداة لجمع البيانات، حيث تم الحصول على ٣٦٦ استجابة من رواد أعمال وموظفين في شركات ناشئة داخل العراق. وقد تم تحليل البيانات باستخدام نمذجة المعادلات الهيكلية (SEM) عبر برنامج 4. SmartPLS تشير النتائج إلى أن الذكاء العاطفي له تأثير كبير على نمو الشركات الناشئة، ويتجلى هذا التأثير من خلال مسارين رئيسيين هما: توقيت الاستثمار المثالي، وتبني النهج الرقمي.

كما تُظهر الدراسة أن الذكاء العاطفي لا يسهم فقط في تعزيز استدامة ريادة الأعمال بشكل مباشر، بل يؤثر أيضاً على الاستدامة طويلة الأجل من خلال العوامل الاستراتيجية الوسيطة. وتبرز الدراسة كذلك أن توقيت الاستثمار المناسب والاستراتيجية الرقمية يلعبان دوراً محورياً في تعزيز نمو واستدامة الشركات الناشئة، مما يعزز من فهمنا لدورهما الوسيط في العلاقة بين الذكاء العاطفي ونجاح المشاريع الريادية. وتساهم هذه النتائج في تعميق فهمنا لأهمية الأصول غير الملموسة، وفي مقدمتها الذكاء العاطفي، في التأثير على مسار تطور الشركات الناشئة، لاسيما من خلال دورها في دعم اتخاذ القرارات الاستراتيجية وتحقيق النجاح المستدام للمشاريع الريادية.

الكلمات المفتاحية: الذكاء العاطفي، توقيت الاستثمار الجيد، الاستراتيجية الرقمية، نمو الشركات الناشئة، الاستدامة الريادية.

Corresponding Author: E-mail: abdurahman.abdullah@uobasrah.edu.iq

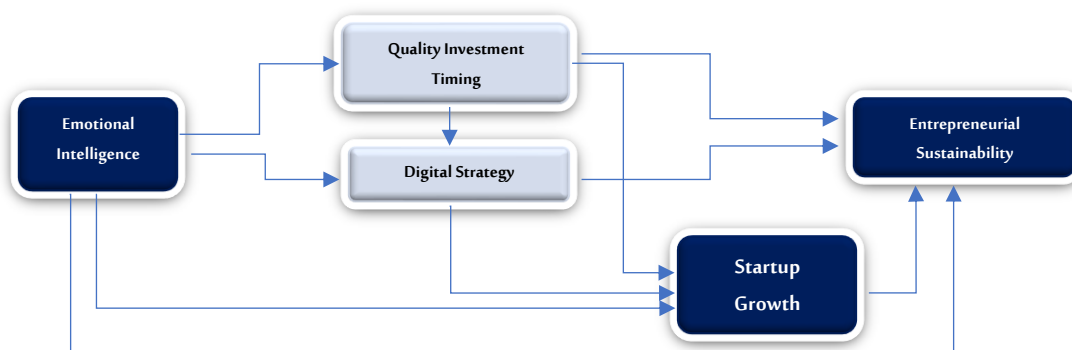
Introduction

In an era characterized by means of fast technological advancements and evolving financial landscapes, entrepreneurial success increasingly hinges on strategic selection-making, adaptability, and useful resource optimization. Key elements influencing business performance consist of emotional intelligence, gold standard funding timing, and digital method, all of which appreciably impact the sustainability and growth of startups. Understanding the interaction amongst those variables is crucial for fostering long-term enterprise viability. Emotional intelligence (EI) plays a vital function in choice-making, management effectiveness, and business adaptability, enabling entrepreneurs to navigate demanding situations with resilience and strategic foresight. Recent studies have established that EI enhances entrepreneurs' psychological ownership, which in turn positively affects project increase (Yitshaki, 2021). Similarly, most effective funding timing—the capacity to allocate financial assets successfully primarily based on marketplace situations and organizational desires—is important for preserving financial stability and maximizing boom opportunities. Effective investment timing contributes to sustainable business improvement with the aid of aligning monetary strategies with marketplace dynamics (Wang, Xu, & Yang, 2018; Cheng & Lippitt, 2012). Digital method has come to be a cornerstone of present-day entrepreneurship, influencing market acquisition, operational performance, and competitive positioning. Integrating superior technological answers and adaptive enterprise models is vital for navigating evolving marketplace dynamics. The adoption of digital transformation frameworks has been related to advanced organizational overall performance and sustainability (De-Esteban-Escobar et al., 2025). Given the increasing complexity of commercial enterprise environments, it's miles imperative to explore how these factors have interaction to force startup increase and entrepreneurial sustainability. This has a look at objectives to have a look at the direct and indirect effects of emotional intelligence, highest quality funding timing, and digital method on enterprise performance. Through empirical evaluation, the research seeks to provide both theoretical and realistic insights, contributing to the development of strategic frameworks for sustainable entrepreneurship.

1st: Research Problem

In Iraq's tough entrepreneurial landscape—marked by economic instability, regulatory complexities, and the urgent need for virtual transformation—attaining sustainable startup growth has become an increasingly tough task. Entrepreneurs need to know not handiest navigate monetary and operational barriers but also how to strategically manipulate emotional intelligence, optimize investment timing, and integrate virtual strategies to enhance their ventures' resilience and competitiveness. Despite the recognized importance of these factors individually, there remains a full-size gap in knowledge of how emotional intelligence, via its impact on the exceptional investment selections and the effective adoption of digital strategies, together shapes the sustainable growth of startups in the Iraqi environment. Therefore, this study seeks to cope with the subsequent studies problem: **To what extent does emotional intelligence contribute to entrepreneurial sustainability in Iraq by driving startup growth directly and indirectly through the mediating effects of quality investment timing and digital strategy integration?**

Search model:



2nd: Research Hypothesis:

Emotional Intelligence has a direct and indirect influence on startup growth and entrepreneurial sustainability, with quality investment timing and digital strategy acting as mediators in these relationships.

1. Core Concept: Entrepreneurial Sustainability

Entrepreneurial Sustainability refers to the potential of startups to acquire lengthy-term success through balancing social, environmental, and financial dreams. This idea is particularly applicable in rising economies, where institutional environments present specific demanding situations and opportunities (Arya et al., 2023). In such contexts, emotional intelligence (EI) performs an essential function in fostering sustainability by way of allowing entrepreneurs to navigate complex selection-making methods below uncertainty (Pathak & Goltz, 2021). Furthermore, sustainable entrepreneurship contributes now not handiest to monetary improvement however also to enhancing health requirements and safeguarding biological cycles, addressing urgent global issues (Tang, 2020).

2. Key Drivers of Entrepreneurial Sustainability

A. Emotional Intelligence (EI)

Emotional intelligence emerges as a foundational driving force of Entrepreneurial Sustainability. EI allows coping mechanisms, stress control, and resilience among entrepreneurs, letting them adapt to changing instances and useful resource constraints (Makhanya and Thulani, 2024; Pathak & Goltz, 2021). For instance, marketers with better EI are more likely to adopt problem-centered or emotion-centered coping strategies whilst dealing with challenges (Pathak & Goltz, 2021). Additionally, EI positively influences creativity, enabling entrepreneurs to innovate and adapt in dynamic environments (Al Dahabreh, 2019). Cultural dimensions also mild the relationship between EI and

entrepreneurial results, with the tremendous hyperlink being stronger in long-term-oriented cultures (Miao et al., 2018).

B. Quality Investment Timing

Quality funding timing represents some other vital motive force of Entrepreneurial Sustainability. Startups must prioritize nice investments early of their lifecycle, specifically underneath conditions of high call for uncertainty, to maximize survival chances (Xia et al., 2018). Subsidies may be greater effective than direct investment in encouraging great innovation amongst startups, underscoring the significance of coverage guide in promoting sustainable practices (Xia et al., 2018). This aligns with Narain's (2019) findings, which reveal that timely satisfactory investments beautify survival chances and contribute to lengthy-time period growth metrics together with public corporation fame and employee growth quotes.

C. Digital Strategy Integration

Digital strategy integration performs a pivotal function in shaping Entrepreneurial Sustainability. The adoption of virtual technologies enhances commercial enterprise processes, improves scalability, and fosters strategic flexibility (Matalamäki & Joensuu-Salo, 2022; Bharadwaj et al., 2013). Lean startup techniques (LSAs) enable agile enterprise version innovation, permitting startups to fast adapt to market needs and improve their cost propositions (Ghezzi & Cavallo, 2022). Moreover, the strategic use of synthetic intelligence (AI) and information analytics supports selection-making, aid optimization, and consumer engagement, contributing to sustainable increase (Jankovic & Curovic, 2023). In the context of Industry 5.0, automation, interoperability, and cyber-bodily systems shape clever industries and services, using scalable and sustainable commercial enterprise models (Kraus et al., 2023).

3. Mediating Factors

Mediating factors, together with each behavioral and environmental dimensions, notably influence the connection between emotional intelligence (EI) and Entrepreneurial Sustainability. Behavioral elements, including moral ideas, values, and competitive intelligence, play a critical function in shaping how entrepreneurs' method sustainable practices. Entrepreneurs with a sturdy entrepreneurial orientation (EO) are more likely to pursue sustainable projects, even if faced with neighborhood pressures or constraints (Arya et al., 2023). Altruism is some other key detail that impacts sustainability attitudes, improving entrepreneurial desirability and fostering a greater sustainable approach to business practices (Vuorio et al., 2020). Interventions tailored to the specific behavioral and cultural nuances of the marketers are essential for selling sustainable entrepreneurship, as they assist align man or woman motivations with the broader sustainability dreams. Environmental elements, in particular the role of institutional assist and policy frameworks, additionally mediate this dating. A supportive environment, consisting of open innovation ecosystems, which consist of initiatives like hackathons and virtual innovation competitions, speeds up the improvement of innovative solutions and prototypes, enhancing startup competitiveness and fostering an entrepreneurial weather conducive to sustainability (Kitsios & Kamariotou, 2023). Additionally, the digital economy eliminates geographical barriers, providing startups with the possibility to get admission to broader markets, have interaction in outside collaborations, and expand their boom possibilities (Edwards, 2020).

The consequences of Entrepreneurial Sustainability make bigger beyond short-time period fulfillment, ensuring long-time period resilience in an increasingly dynamic global marketplace. By integrating superb enterprise practices with robust virtual techniques, startups can acquire superior boom effects, which includes the attainment of public organization reputation and the growth in their personnel (Narain, 2019). The virtual economy plays a pivotal position in fostering collaboration across geographical boundaries, permitting startups to get admission to rising developments, market information, and new customer bases, thereby amplifying their competitive benefits (Edwards, 2020). Furthermore, sustainable entrepreneurship yields profound social and

environmental impacts. Through the combination of sustainable practices, startups can make contributions to improving fitness standards, shielding organic cycles, and addressing urgent social and environmental challenges (Tang, 2020). Psychological capital, encompassing attributes such as optimism, wish, efficacy, and resilience, is also vital for building sustainable business infrastructures and making sure the lengthy-time period success of entrepreneurial ventures (Tang, 2020).

Moderating variables, inclusive of cultural dimensions and technological readiness, in addition impact the relationship among EI and entrepreneurial outcomes. Cultural dimensions, which include long-term orientation and energy distance, mild the impact of EI on entrepreneurial effects, highlighting the need for culture-specific adjustments in behavioral frameworks to effectively sell sustainability. In cultures with a protracted-time period orientation, as an instance, the hyperlink among EI and entrepreneurial aim tends to be more potent, suggesting that cultural values play an essential role in shaping entrepreneurial behaviors (Miao et al., 2018). Technological readiness, especially in the context of Industry 5.0, is another key element in moderating Entrepreneurial Sustainability. The adoption of superior technology consisting of automation, interoperability, and cyber-physical systems allows startups to construct clever industries and offerings that power real-time, self-getting to know skills, selling sustainable increase. However, premature adoption of these technologies without good enough preparation could preclude progress, necessitating a phased and strategic method to generation integration (Kraus et al., 2023). Thus, the moderating position of both cultural dimensions and technological readiness underscores the complicated nature of Entrepreneurial Sustainability, emphasizing the want for context-specific techniques that bear in mind cultural, behavioral, and technological factors.

In conclusion, the literature exhibits that satisfactory and digital transformation have been investigated as unbiased variables within the context of Entrepreneurial Sustainability. Therefore, this has a look at targets to have a look at the diploma to which these two variables mediate the connection between emotional intelligence and company increase, in addition to their have an impact on commercial enterprise sustainability. Through this exploration, the studies seek to enhance knowledge of how emotional intelligence, great, and digital transformation together contribute to fostering sustainable commercial enterprise practices and using long-term boom in startups.

3rd: The Practical Framework:

The practical framework of this observe features a complete assessment of the research method, starting with an in-intensity exam of the examine population and a top-level view of the chosen pattern. Emphasis is placed on the development of the examine device, detailing the medical tactics implemented to make sure its validity and reliability. Additionally, the statistical strategies hired for data evaluation are outlined, providing a thorough expertise of the studies framework and the methodological approach followed on this look at.

1. Study Methodology

This examine hired the descriptive-analytical approach to accumulate facts applicable to the studies domain, specifically exploring the mediating role of excellent and strategic virtual transformation integration in the increase and sustainability of entrepreneurial ventures via emotional intelligence. This methodology became selected for its effectiveness in describing and studying reality whilst accounting for both qualitative and quantitative variables influencing the phenomenon below research. The primary objective of this method is to translate descriptive and analytical insights into generalizable findings.

A questionnaire becomes applied as the principal facts collection instrument, designed to collect facts from a randomly selected sample of personnel from **twenty startup agencies**. The overall range of measurable observations reached 366. To derive significant conclusions and pointers, the accumulated statistics turned into processed the usage of the SmartPLS4 statistical analysis software, which applies structural equation modeling (SEM) thru the partial least squares method

(PLS-SEM). This approach becomes employed to investigate the results and check the research hypotheses fastidiously.

2. Study Population and Sample

The study population includes individuals and founders of entrepreneurial groups in Iraq, working in **various sectors**, including **manufacturing, tourism, and banking**, and covering various job titles and professional roles. Since the size of our population is unknown, the following equation was used to determine the sample size:

$$n = \frac{Z^2 \cdot p \cdot (1 - p)}{E^2}$$

Where:

- **n** is the sample size.
- **z** is the standard value corresponding to the specified confidence level (for example, for 95% confidence, **z** is approximately 1.96).
- **p** is the initial estimate of the target population's proportion (if unknown, 0.5 is used to provide the best estimate of the sample size).
- **E** is the permissible margin of error (for example, 0.05).

$$\frac{1.96^2 \cdot 0.5 \cdot (1 - 0.5)}{0.05^2} = 384$$

The questionnaire was then distributed electronically via a Google Forms link to a random sample of 400 individuals. However, the number of responses reached 366, with no missing values, which prompted us to adopt all of them.

3. Study Instrument

Based on an intensive evaluate of previous studies in the theoretical framework, the researcher evolved a questionnaire utilizing a five-point Likert scale as the primary statistics series device. This tool turned into selected for its suitability in addressing the have a look at's objectives and its performance in terms of time, effort, and price. The questionnaire is established into major sections. The first segment provides an advent to the have a look at, including its title, goals, and the researcher's call, even as making sure respondents of information confidentiality and its exclusive use for academic studies functions. The second segment is divided into 5 key dimensions: the primary specializes in emotional intelligence, the second examines Quality Investment Timing standards, the 0.33 explores digital approach, the fourth addresses startup growth, and the fifth assesses commercial enterprise sustainability.

4. Results Analysis and Hypothesis Testing

Before evaluating the observe hypotheses, it is critical to evaluate each the dimension version and the structural model through the following steps:

A. Measurement Model Evaluation

Assessing the first-rate and validity of the dimension version entails conducting tests related to its reliability and validity. Validity refers to the extent to which the measurement correctly reflects the intended construct, whilst reliability shows the consistency of effects whilst the look at is repeated. The following steps are used to ensure the robustness of the measurement version:

(1) Indicator Reliability

Indicator reliability is evaluated by means of calculating the outer loadings of the indicators. Statements with outer loading values under 0.4 are eliminated, whereas people with values above 0.7 are retained. Statements with loadings among 0.4 and 0.7 are excluded if they negatively impact composite reliability; in any other case, they are retained if no detrimental impact is detected

(Ringle et al., 2022). The table beneath gives the reliability of the signs for the have a look at variables.

Table (1): The dependability of the indicators for the examined variables

Axes	Indicators	Outer loadings
Emotional Intelligence	I can effectively manage my feelings all through hard business situations.	0.711
	I can understand and recognize the feelings of others in a business context.	0.840
	I can stay calm and composed under strain when making enterprise decisions.	0.841
	I am skilled at motivating myself and others to attain business desires.	0.792
	I can empathize with my enterprise companions and customers, which allows me in my entrepreneurial ventures.	0.768
Quality Investment Timing	My startup prioritizes best investments at the beginning of its lifecycle.	0.820
	We make selections on investments based on lengthy-time period growth ability as opposed to short-time period profits.	0.884
	Timely great investments are key to the survival and increase of my startup.	0.904
	The firm adapts its investment timing primarily based on monetary traits and monetary forecasts.	0.877
	The employer efficiently balances danger and opportunity while figuring out the timing of investments.	0.894
Digital Strategy	Digital technologies are imperative to my startup's enterprise model and operations.	0.648
	My startup makes use of facts analytics to pressure decision-making and enterprise method.	0.652
	We regularly adopt new virtual gear and systems to enhance performance and scalability.	0.675
	The integration of virtual techniques has superior my startup's competitiveness in the market.	0.803
	Artificial intelligence and automation are used inside my startup to optimize aid management and consumer engagement.	0.755
Startup Growth	My startup has finished steady increase in phrases of sales and marketplace share.	0.729
	Our prosperity technologies are efficiently supported by the help of emotional intelligence and digital advancements.	0.726
	My startup has grown due to its ability to fast adapt to market developments and technological advancements.	0.752
	We have correctly extended into new markets due to our boom approach.	0.724
	Our startup has experienced an increase in worker retention and expansion as a part of its boom trajectory.	0.718
Entrepreneurial Sustainability	My startup actively balances social, environmental, and monetary goals.	0.756
	We combine sustainable practices into the middle of our commercial enterprise operations.	0.756
	My startup's increase method includes long-term considerations for sustainability.	0.828
	My startup's sustainability is encouraged using environmental and social factors.	0.595
	We regularly assess and adjust our business practices to align with sustainable development goals.	0.717

The indicator reliability evaluation confirms that maximum gadgets show off robust outer loading values, demonstrating their robustness in measuring the intended constructs. Indicators with loadings above 0.7 are well inside the desirable threshold, making sure excessive reliability. While a few indicators within the Digital Strategy and Entrepreneurial Sustainability dimensions have decrease loadings (ranging between 0.595 and 0.675), their retention indicates that they do now not appreciably compromise composite reliability. Overall, the dimension model maintains consistency,

with indicators efficiently taking pictures the theoretical constructs of emotional intelligence, first-rate funding timing, virtual method, startup growth, and Entrepreneurial Sustainability.

(2) Scale Reliability:

To determine the validity and suitability of the records series device in measuring the have a look at variables, the researcher employed Cronbach's Alpha and Rho_A coefficients to evaluate the scale's reliability. Cronbach's Alpha is a conventional indicator of the inner consistency of the scale, even as Rho_A is used to evaluate the homogeneity and stability of the latent variables within the scale. The summary of the consequences is supplied inside the following table:

Table (2): Construct reliability and validity

Construct reliability and validity	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Emotional Intelligence	0.850	0.854	0.893	0.627
Quality Investment Timing	0.924	0.926	0.943	0.768
Digital Strategy	0.753	0.764	0.834	0.503
Startup Growth	0.781	0.781	0.851	0.533
Entrepreneurial Sustainability	0.784	0.797	0.853	0.539

The reliability analysis confirms that the dimension scale famous sturdy inner consistency and assemble validity. Cronbach's Alpha values for all constructs exceed the applicable threshold of 0.7, indicating high internal consistency. Similarly, Rho_A and Composite Reliability (CR) values are above 0.7, putting forward the stability and reliability of the latent variables. The Average Variance Extracted (AVE) values for most constructs surpass the 0.5 threshold, confirming good enough convergent validity, besides for Digital Strategy (0.503), that is marginal however nonetheless suitable. Overall, the scale is deemed dependable and suitable for measuring the observe variables.

(3) Discriminant Validity:

Discriminant validity serves as a hallmark of the extent to which a latent variable is wonderful from other latent variables inside the structural model, as mentioned with the aid of Ringle et al. (2022). Discriminant validity is confirmed while a latent variable virtually distinguishes itself from different variables inside the version. These tests are performed regularly to make certain the validity of the relationships and to illustrate the clarity of the difference between shared variables. The purpose of these exams is to make certain that each latent variable contributes efficiently to the information of the structural model without unwanted overlap from different variables. The following table illustrates the discriminant validity of the model.

Table (3): The discriminant validity of the model

Heterotrait-monotrait ratio (HTMT) - Matrix	Digital Strategy	Emotional Intelligence	Entrepreneurial Sustainability	Quality Investment Timing	Startup Growth
Digital Strategy					
Emotional Intelligence	0.487				
Entrepreneurial Sustainability	0.887	0.356			
Quality Investment Timing	0.487	0.485	0.459		
Startup Growth	0.849	0.604	0.781	0.666	

The discriminant validity assessment ensures that every latent variable is wonderful and contributes uniquely to the structural model. The Heterotrait-Monotrait (HTMT) ratio values indicate appropriate ranges of difference the various constructs, as all values remain beneath the typically customary threshold of zero.90 (Ringle et al., 2022). This confirms that no excessive overlap exists among the variables, reinforcing the validity of the measurement model. Therefore, the constructs correctly capture their intended theoretical dimensions without redundancy or conceptual ambiguity.

(4) Cross Loading:

The term "go loading," as supplied in the table above, highlights the need to make certain that the questions inside every size successfully degree that specific size without interference from other dimensions. This is proven through the higher loading of variables on their corresponding measurement as compared to different dimensions. This analysis gives a clearer information of the uniqueness of each size and its ability to accurately degree the precise trait it represents. By employing this approach, cross loading confirms the precision of the measurements and enhances the reliability of the statistical model used in the look at.

Table (4): Cross Loading

	<u>Cross loadings</u>	Emotional Intelligence	Quality Investment Timing	Digital Strategy	Startup Growth	Entrepreneurial Sustainability
Emotional Intelligence	I can effectively manage my feelings all through hard business situations.	0.711	0.261	0.342	0.333	0.176
	I can understand and recognize the feelings of others in a business context.	0.840	0.340	0.345	0.408	0.267
	I can stay calm and composed under strain when making enterprise decisions.	0.841	0.387	0.269	0.396	0.219
	I am skilled at motivating myself and others to attain business desires.	0.792	0.366	0.346	0.389	0.247
	I can empathize with my enterprise companions and customers, which allows me in my entrepreneurial ventures.	0.768	0.353	0.253	0.425	0.227
Quality Investment Timing	My startup prioritizes best investments at the beginning of its lifecycle.	0.298	0.820	0.482	0.515	0.485
	We make selections on investments based on lengthy-time period growth ability as opposed to short-time period profits.	0.305	0.884	0.340	0.453	0.299
	Timely great investments are key to the survival and increase of my startup.	0.371	0.904	0.343	0.491	0.286
	The firm adapts its investment timing primarily based on monetary traits and monetary forecasts.	0.462	0.877	0.304	0.512	0.308
	The employer efficiently balances danger and opportunity while figuring out the timing of investments.	0.454	0.894	0.358	0.521	0.318
Digital Strategy	Digital technologies are imperative to my startup's enterprise model and operations.	0.384	0.419	0.648	0.485	0.420
	My startup makes use of facts analytics to pressure decision-making and enterprise method.	0.266	0.202	0.652	0.336	0.359
	We regularly adopt new virtual gear and systems to enhance performance and scalability.	0.114	0.212	0.675	0.395	0.606
	The integration of virtual techniques has superior my startup's competitiveness in the market.	0.309	0.384	0.803	0.573	0.594

Startup Growth	Artificial intelligence and automation are used inside my startup to optimize aid management and consumer engagement.	0.305	0.238	0.755	0.523	0.490
	My startup has finished steady increase in phrases of sales and marketplace share.	0.417	0.559	0.506	0.729	0.420
	Our prosperity technologies are efficiently supported by the help of emotional intelligence and digital advancements.	0.344	0.369	0.542	0.726	0.433
	My startup has grown due to its ability to fast adapt to market developments and technological advancements.	0.324	0.378	0.479	0.752	0.470
	We have correctly extended into new markets due to our boom approach.	0.368	0.392	0.426	0.724	0.452
	Our startup has experienced an increase in worker retention and expansion as a part of its boom trajectory.	0.346	0.379	0.471	0.718	0.458
Entrepreneurial Sustainability	My startup actively balances social, environmental, and monetary goals.	0.085	0.256	0.575	0.411	0.756
	We combine sustainable practices into the middle of our commercial enterprise operations.	0.294	0.313	0.550	0.436	0.756
	My startup's increase method includes long-term considerations for sustainability.	0.124	0.215	0.553	0.389	0.828
	My startup's sustainability is encouraged using environmental and social factors.	0.239	0.305	0.305	0.411	0.595
	We regularly assess and adjust our business practices to align with sustainable development goals.	0.330	0.363	0.549	0.588	0.717

The go-loading analysis confirms the distinctiveness of each construct, as indicators show off higher loadings on their respective dimensions as compared to others. This reinforces the validity of the size version with the aid of demonstrating that each latent variable is uniquely measured without huge interference from different constructs. Consequently, the version continues a high degree of reliability and accuracy in capturing the meant theoretical constructs.

(5) Correlation Between Dimensions (Variable Correlation - R² of AVE):

The evaluation of variable correlation (R² of AVE) is used to make sure that there is no overlap between the one-of-a-kind dimensions in the model. It suggests that the correlation values among a dimension and itself should be higher than the correlation values between that measurement and different dimensions. The following desk illustrates the diploma of overlap between the scale inside the look at's model.

Table (5): Correlation between dimensions

Fornell-Larcker criterion	Digital Strategy	Emotional Intelligence	Entrepreneurial Sustainability	Quality Investment Timing	Startup Growth
Digital Strategy	0.709				
Emotional Intelligence	0.392	0.792			
Entrepreneurial Sustainability	0.706	0.289	0.734		
Quality Investment Timing	0.422	0.433	0.393	0.876	
Startup Growth	0.666	0.494	0.611	0.572	0.730

The Fornell-Larcker criterion confirms the discriminant validity of the version through demonstrating that the rectangular root of the common variance extracted (AVE) for each size is greater than its correlations with different dimensions. This suggests that every assemble is more

strongly associated with its own signs than to different constructs, making sure the individuality of the variables and minimizing conceptual overlap in the model.

(6) Variance Inflation Factor (VIF):

The Variance Inflation Factor (VIF) is a measure used to evaluate the diploma of multicollinearity among the study's indicators. Statistically ideal values are those below 5, indicating no vast overlap between the variables. If the VIF values exceed this threshold, it indicates that the variable in query is fantastically correlated with other variables in the observe. The following table offers the VIF values for the study's variables, offering insight into potential multicollinearity within the model.

Table (6): Variance inflation factor

Collinearity statistics (VIF)		VIF
Emotional Intelligence	I can effectively manage my feelings all through hard business situations.	1.933
	I can understand and recognize the feelings of others in a business context.	2.734
	I can stay calm and composed under strain when making enterprise decisions.	2.360
	I am skilled at motivating myself and others to attain business desires.	2.020
	I can empathize with my enterprise companions and customers, which allows me in my entrepreneurial ventures.	1.803
Quality Investment Timing	My startup prioritizes best investments at the beginning of its lifecycle.	2.393
	We make selections on investments based on lengthy-time period growth ability as opposed to short-time period profits.	3.937
	Timely great investments are key to the survival and increase of my startup.	4.399
	The firm adapts its investment timing primarily based on monetary traits and monetary forecasts.	3.519
	The employer efficiently balances danger and opportunity while figuring out the timing of investments.	3.846
Digital Strategy	Digital technologies are imperative to my startup's enterprise model and operations.	1.240
	My startup makes use of facts analytics to pressure decision-making and enterprise method.	1.618
	We regularly adopt new virtual gear and systems to enhance performance and scalability.	1.610
	The integration of virtual techniques has superior my startup's competitiveness in the market.	1.831
	Artificial intelligence and automation are used inside my startup to optimize aid management and consumer engagement.	1.715
Startup Growth	My startup has finished steady increase in phrases of sales and marketplace share.	1.433
	Our prosperity technologies are efficiently supported by the help of emotional intelligence and digital advancements.	1.473
	My startup has grown due to its ability to fast adapt to market developments and technological advancements.	1.611
	We have correctly extended into new markets due to our boom approach.	1.488
	Our startup has experienced an increase in worker retention and expansion as a part of its boom trajectory.	1.424
Entrepreneurial Sustainability	My startup actively balances social, environmental, and monetary goals.	1.861
	We combine sustainable practices into the middle of our commercial enterprise operations.	1.574
	My startup's increase method includes long-term considerations for sustainability.	2.254
	My startup's sustainability is encouraged using environmental and social factors.	1.379
	We regularly assess and adjust our business practices to align with sustainable development goals.	1.480

The analysis of the Variance Inflation Factor (VIF) suggests that there may be no big multicollinearity issue among the observe's signs, as all VIF values are underneath the brink of 5, which is taken into consideration statistically proper. These values suggest an appropriate level of overlap among the variables, indicating that the signs remain independent and do now not highlight immoderate correlation. This absence of excessive multicollinearity ensures the robustness and

reliability of the version, with every variable correctly contributing to the rationale of variance without undue have an impact on from different variables.

(7) The collinearity statistics

The collinearity information, as represented via the Variance Inflation Factor (VIF), provide insights into ability multicollinearity troubles inside the inner version of the have a look at. Multicollinearity occurs whilst predictor variables are tremendously correlated, that can distort the model's estimates. A VIF price underneath 5 is normally considered suited, indicating that multicollinearity is not a vast subject. The effects show that everyone VIF values are underneath this threshold, suggesting that multicollinearity does not pose a sizeable issue in the version (Ringle, C, et. Al., 2022).

Table (7): Collinearity statistics (VIF)

Inner model - List	VIF
Digital Strategy -> Entrepreneurial Sustainability	1.817
Digital Strategy -> Startup Growth	1.302
Emotional Intelligence -> Digital Strategy	1.231
Emotional Intelligence -> Entrepreneurial Sustainability	1.395
Emotional Intelligence -> Quality Investment Timing	1.000
Emotional Intelligence -> Startup Growth	1.318
Quality Investment Timing -> Digital Strategy	1.231
Quality Investment Timing -> Entrepreneurial Sustainability	1.560
Quality Investment Timing -> Startup Growth	1.356
Startup Growth -> Entrepreneurial Sustainability	2.335

The collinearity facts, represented by the Variance Inflation Factor (VIF), provide insights into capability multicollinearity troubles within the study's internal model. Multicollinearity arises while predictor variables are exceedingly correlated, that may distort the model's estimates. In this study, all VIF values are below the appropriate threshold of 5, indicating that multicollinearity is not a tremendous problem. This shows that the relationships among the variables within the model are stable, and the predictor variables are sufficiently unbiased of every different, ensuring the reliability of the model's estimates.

After validating the standard model, the study model was adopted as follows:

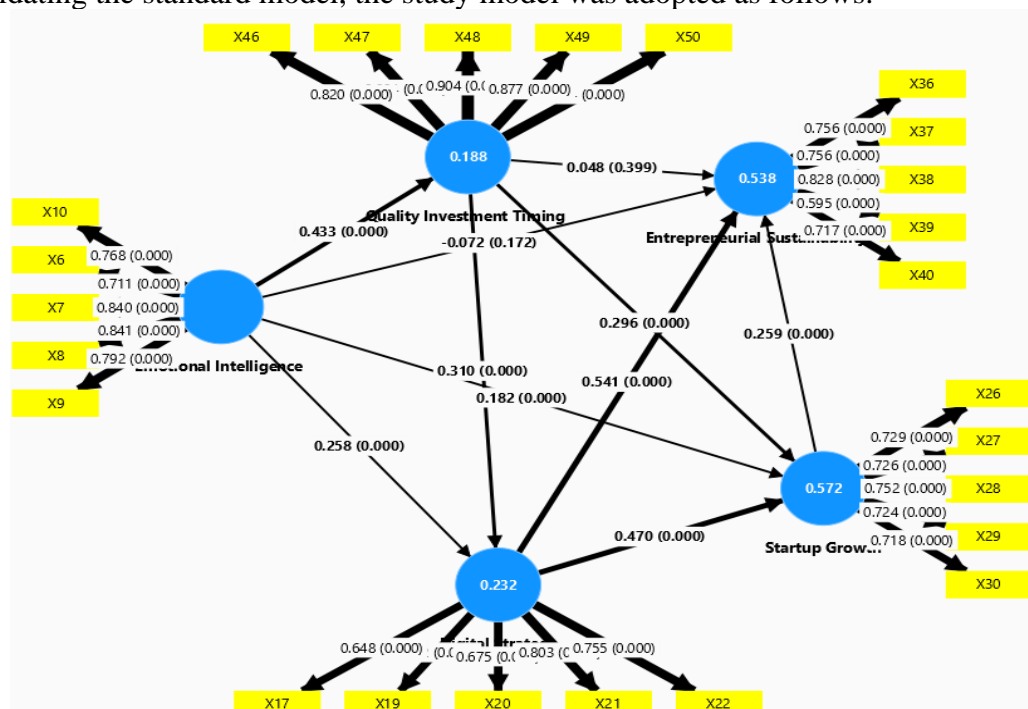


Figure (1): The study model

A. Assessment of Structural Model:

Evaluating the structural model is an essential step earlier than conducting hypothesis checking out. This procedure involves ensuring the model's pleasant via 4 primary standards: the coefficient of determination (R^2), impact length (F^2), and goodness of in shape index (GOF). These standards are discussed in detail as follows:

(1) Coefficient of Determination (R^2):

The coefficient of willpower (R^2) is used to estimate the accuracy of the regression coefficient. It is calculated via squaring the simple correlation coefficient. R^2 values range from zero to one, wherein values closer to one indicate higher accuracy in regression predictions and lower random mistakes. R^2 values replicate the version's ability to explain the version inside the based variable using the impartial variable. The interpretation of R^2 values is normally as follows:

- Less than 0.19: Unacceptable
- Between 0.19 and 0.33: Weak
- Between 0.33 and 0.67: Moderate
- Greater than 0.67: High

The following desk presents the R^2 values for the variables used on this study:

Table (8): The R^2 Values

	R-square	R-square adjusted
Digital Strategy	0.232	0.227
Entrepreneurial Sustainability	0.538	0.533
Quality Investment Timing	0.188	0.185
Startup Growth	0.572	0.568

Based on the interpretation scale of R^2 , the results imply that the model's explanatory electricity varies throughout one-of-a-kind variables. For Digital Strategy, the R^2 fee is 0.232, that is taken into consideration susceptible, signifying that the version has an exceedingly low capability to explain the variant on this variable. In contrast, the R^2 for Entrepreneurial Sustainability is 0.538, reflecting a slight degree of cause of the version in this area. For Quality Investment Timing, the R^2 price is 0.188, that is deemed unacceptable, indicating poor predictive strength for this variable. Lastly, the R^2 for Startup Growth stands at 0.572, suggesting a slight ability of the version to explain the growth of startups. Overall, the version is greater powerful at explaining Entrepreneurial Sustainability and startup increase but much less a hit in predicting great investment timing and virtual method.

(2) Effect Size (F^2):

Cohen (1988) provided a guideline for interpreting F^2 values and their corresponding effect sizes as follows:

- F^2 value less than 0.02 indicates no effect.
- F^2 value greater than 0.02 and less than 0.15 indicates a small effect.
- F^2 value greater than 0.15 and less than 0.35 indicates a medium effect.

F^2 value greater than 0.35 indicates a large effect. The following table presents the F^2 values for the variables in this study:

Table (9): the F^2 values

	f-square
Digital Strategy -> Entrepreneurial Sustainability	0.349
Digital Strategy -> Startup Growth	0.396
Emotional Intelligence -> Digital Strategy	0.070
Emotional Intelligence -> Entrepreneurial Sustainability	0.008
Emotional Intelligence -> Quality Investment Timing	0.231
Emotional Intelligence -> Startup Growth	0.058
Quality Investment Timing -> Digital Strategy	0.102
Quality Investment Timing -> Entrepreneurial Sustainability	0.003
Quality Investment Timing -> Startup Growth	0.150
Startup Growth -> Entrepreneurial Sustainability	0.062

The outcomes display varying stages of influence. Digital Strategy has a significant impact on both Entrepreneurial Sustainability ($F^2 = 0.349$) and Startup Growth ($F^2 = 0.396$), indicating a significant impact of virtual strategy on those areas. In comparison, Emotional Intelligence famous a small impact on Digital Strategy ($F^2 = 0.070$), suggesting a modest effect, whilst its effect on Entrepreneurial Sustainability ($F^2 = 0.008$) is sincerely nonexistent, implying a negligible have an impact on. Emotional Intelligence additionally indicates a medium impact on Quality Investment Timing ($F^2 = 0.231$), indicating a moderate effect, but its influence on Startup Growth ($F^2 = 0.058$) is small, reflecting a minor effect. Regarding Quality Investment Timing, its impact on Digital Strategy ($F^2 = 0.102$) is small, indicating a susceptible effect, and it has almost no effect on Entrepreneurial Sustainability ($F^2 = 0.003$). However, Quality Investment Timing demonstrates a medium effect on Startup Growth ($F^2 = 0.150$), highlighting a mild impact. Finally, Startup Growth has a small impact on Entrepreneurial Sustainability ($F^2 = 0.062$), suggesting a minimum effect. Overall, the results emphasize that digital method exerts a significant impact on each Entrepreneurial Sustainability and startup boom, while emotional intelligence typically has a quite small or negligible impact on the diverse relationships.

(3) The Goodness-of-Fit Index (GOF):

The Goodness-of-Fit Index (GOF) serves as an important metric for comparing the extent to which a statistical version fits the found statistics. Also known as the Goodness-of-Fit Index, this measure allows researchers to assess the model's effectiveness in explaining the relationships among independent and structured variables. The GOF is a powerful tool for determining the model's high-quality, as it quantifies the disparity among real records and the anticipated values generated by using the model.

GOF is calculated by using taking the square root of the made of two key metrics: the common variance extracted (AVE) and the structural equation version's coefficient of willpower (R^2). According to Wetzels et al. (2009), a GOF cost exceeding 0.36 is considered high-quality. In the context of the forefront have a look at, the GOF price is derived by calculating the rectangular root of the made from the AVE and R^2 values, presenting a degree of the way well the version aligns with the facts. The following table gives the GOF value for the study version, indicating the general goodness of match.

Table (10): the GOF value

	R-square	Average variance extracted (AVE)
Emotional Intelligence		0.627
Quality Investment Timing	0.188	0.768
Digital Strategy	0.232	0.503
Startup Growth	0.572	0.533
Entrepreneurial Sustainability	0.538	0.539
AVERAGE	0.382	0.594

The model fit index was calculated using the following formula:

$$\sqrt{0.382355 \times 0.59404} = 0.4765859463$$

It is found that the ensuing index fee indicates an excessive version match first-class, because it exceeds the edge of 0.35, that is commonly used as a benchmark for determining the adequacy of model fit.

(4) Path Coefficient Evaluation in the Structural Model:

The evaluation of path coefficients within the structural model focuses on analyzing the relationships between its additives. This technique entails assessing the real values of the direction coefficients that hyperlink various variables inside the version. The goal of the evaluation is to determine whether statistical evidence supports or refutes the impact of emotional intelligence on startup boom and sustainability via Quality Investment Timing and Digital Strategy Integration inside the studied agencies. The analysis includes key statistical measures which include sample way, confidence durations, and statistical importance derived from the model's re-estimation. The results of the course coefficient analysis for this speculation are offered within the following table.

Table (11): Path Coefficient Evaluation

<u>Path coefficients</u>	<u>Original</u>	<u>Sample</u>	<u>Standard</u>	<u>T statistics</u>	<u>Confidence</u>		<u>P</u>
	<u>sample</u>	<u>mean</u>	<u>deviation</u>	<u>(O/STDEV)</u>	<u>intervals</u>	<u>intervals</u>	
	<u>(O)</u>	<u>(M)</u>	<u>(STDEV)</u>		<u>2.5%</u>	<u>97.5%</u>	<u>values</u>
Emotional Intelligence -> Quality Investment Timing	0.433	0.435	0.046	9.328	0.341	0.524	0.000
Emotional Intelligence -> Digital Strategy	0.258	0.258	0.068	3.809	0.124	0.386	0.000
Emotional Intelligence -> Startup Growth	0.182	0.183	0.047	3.896	0.092	0.273	0.000
Emotional Intelligence -> Entrepreneurial Sustainability	-0.072	-0.073	0.053	1.366	-0.178	0.028	0.172
Quality Investment Timing -> Digital Strategy	0.310	0.309	0.066	4.680	0.178	0.438	0.000
Quality Investment Timing -> Startup Growth	0.296	0.295	0.049	6.037	0.201	0.392	0.000
Quality Investment Timing -> Entrepreneurial Sustainability	0.048	0.044	0.057	0.843	-0.069	0.155	0.399
Digital Strategy -> Startup Growth	0.470	0.471	0.053	8.834	0.364	0.570	0.000
Digital Strategy -> Entrepreneurial Sustainability	0.541	0.544	0.054	10.094	0.439	0.643	0.000
Startup Growth -> Entrepreneurial Sustainability	0.259	0.26	0.071	3.652	0.122	0.401	0.000

The findings monitor that emotional intelligence has a strong positive relationship with quality investment timing, with a route coefficient of 0.433 and a tremendously good-sized p-value of 0.000. This shows that emotional intelligence performs a critical role in shaping investment timing decisions within startups. Furthermore, emotional intelligence also undoubtedly impacts virtual strategy, with a mild course coefficient of 0.258 and a statistically great p- value of 0.000, indicating that emotional intelligence contributes to the combination of virtual techniques inside startups. Regarding startup increase, emotional intelligence famous a fine but slight impact, with a coefficient of 0.182 and statistical importance (p = 0.000), suggesting that emotional intelligence is a contributing component to the increase of startups. However, emotional intelligence's effect on Entrepreneurial Sustainability is negative however no longer statistically good sized (coefficient = -0.072, p = 0.172), indicating that there is no substantial evidence to aid its impact on sustainability on this context. In terms of Quality Investment Timing, the analysis demonstrates a robust high-quality impact on virtual method (coefficient = 0.310, p = 0.000) and startup growth (coefficient = 0.296, p = 0.000), underlining the significance of well-timed investments in riding each growth and digital transformation inside startups. However, its effect on Entrepreneurial Sustainability is weak and statistically insignificant (coefficient = 0.048, p = 0.399), indicating no meaningful effect. On

the opposite hand, Digital Strategy suggests an especially giant and strong high-quality courting with each startup boom (coefficient = 0.470, $p = 0.000$) and Entrepreneurial Sustainability (coefficient = 0.541, $p = 0.000$), highlighting the essential function of virtual approach in improving both boom and lengthy-term sustainability in startups. Lastly, the connection among startup boom and Entrepreneurial Sustainability is moderately fine (coefficient = 0.259, $p = 0.000$), indicating that as startups grow, they are more likely to acquire sustainability, albeit at a mild degree. In conclusion, the evaluation demonstrates that emotional intelligence influences startup increases and virtual approach integration, even as Quality Investment Timing and Digital Strategy emerge as key drivers of both increase and sustainability inside startups.

(5) Total indirect effects:

The general oblique outcomes analysis examines the mediating influence of intermediary variables in the model.

Table (12): The mediating influence of intermediary variables

Path coefficients	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STD EV))	Confidence intervals		Confidence intervals bias corrected			P values
					2.5%	97.5%	Bias	2.5%	97.5%	
Emotional Intelligence -> Digital Strategy	0.134	0.135	0.035	3.824	0.069	0.208	0.001	0.070	0.208	0.000
Emotional Intelligence -> Startup Growth	0.312	0.314	0.042	7.413	0.230	0.395	0.001	0.228	0.393	0.000
Emotional Intelligence -> Entrepreneurial Sustainability	0.361	0.362	0.054	6.678	0.253	0.466	0.002	0.248	0.459	0.000
Quality Investment Timing -> Startup Growth	0.146	0.146	0.036	4.047	0.077	0.219	0.000	0.079	0.221	0.000
Quality Investment Timing -> Entrepreneurial Sustainability	0.282	0.283	0.053	5.330	0.181	0.387	0.001	0.180	0.386	0.000
Digital Strategy -> Entrepreneurial Sustainability	0.122	0.122	0.036	3.394	0.057	0.198	0.000	0.059	0.201	0.001

The outcomes imply that emotional intelligence has a giant indirect effect on digital strategy ($O = 0.134$, $p = 0.000$), startup growth ($O = 0.312$, $p = 0.000$), and Entrepreneurial Sustainability ($O = 0.361$, $p = 0.000$), highlighting its role in improving these effects through mediating factors. Similarly, great funding timing demonstrates a great oblique impact on startup growth ($O = 0.146$, $p = 0.000$) and Entrepreneurial Sustainability ($O = 0.282$, $p = 0.000$), reinforcing its importance in driving sustainable business increase. Additionally, virtual strategy exerts a high-quality oblique have an impact on Entrepreneurial Sustainability ($O = 0.122$, $p = 0.001$), emphasizing its function in fostering lengthy-time period business viability. These findings together underscore the interconnected pathways through which emotional intelligence, great funding timing, and digital method contribute to the sustainable development of startups.

(6) Specific indirect effects:

The analysis of precise oblique outcomes gives a deeper expertise of the mediating pathways through which emotional intelligence and quality investment timing influence startup growth and Entrepreneurial Sustainability.

Table (13): Indirect effects

Specific indirect effects	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	Confidence intervals		Confidence intervals bias corrected			P values
					2.5%	97.5%	Bias	2.5%	97.5%	
Emotional Intelligence -> Startup Growth -> Entrepreneurial Sustainability	0.047	0.048	0.018	2.559	0.017	0.088	0.001	0.018	0.090	0.011
Emotional Intelligence -> Quality Investment Timing -> Startup Growth	0.128	0.128	0.026	4.996	0.082	0.182	0.000	0.085	0.185	0.000
Emotional Intelligence -> Quality Investment Timing -> Entrepreneurial Sustainability	0.021	0.019	0.025	0.829	- 0.031	0.069	- 0.002	- 0.027	0.072	0.407
Emotional Intelligence -> Quality Investment Timing -> Digital Strategy	0.134	0.135	0.035	3.824	0.069	0.208	0.001	0.070	0.208	0.000
Emotional Intelligence -> Quality Investment Timing -> Digital Strategy -> Startup Growth	0.063	0.064	0.018	3.487	0.031	0.103	0.001	0.031	0.104	0.000
Emotional Intelligence -> Quality Investment Timing -> Digital Strategy -> Entrepreneurial Sustainability	0.073	0.073	0.020	3.580	0.036	0.116	0.001	0.037	0.116	0.000
Emotional Intelligence -> Quality Investment Timing -> Startup Growth -> Entrepreneurial Sustainability	0.033	0.033	0.012	2.747	0.014	0.061	0.000	0.015	0.065	0.006
Emotional Intelligence -> Digital Strategy -> Startup Growth	0.121	0.122	0.036	3.352	0.056	0.194	0.001	0.057	0.196	0.001
Emotional Intelligence -> Digital Strategy -> Entrepreneurial Sustainability	0.140	0.140	0.039	3.605	0.067	0.218	0.001	0.066	0.217	0.000
Emotional Intelligence -> Digital Strategy -> Startup Growth -> Entrepreneurial Sustainability	0.031	0.032	0.014	2.249	0.010	0.064	0.001	0.011	0.067	0.025
Emotional Intelligence -> Quality Investment Timing -> Digital Strategy -> Startup Growth -> Entrepreneurial Sustainability	0.016	0.017	0.007	2.373	0.006	0.032	0.000	0.006	0.034	0.018
Quality Investment Timing -> Startup Growth -> Entrepreneurial Sustainability	0.077	0.077	0.025	3.097	0.034	0.130	0.000	0.037	0.135	0.002
Quality Investment Timing -> Digital Strategy -> Startup Growth	0.146	0.146	0.036	4.047	0.077	0.219	0.000	0.079	0.221	0.000
Quality Investment Timing -> Digital Strategy -> Entrepreneurial Sustainability	0.168	0.168	0.040	4.186	0.092	0.251	0.001	0.092	0.251	0.000
Quality Investment Timing -> Digital Strategy -> Startup Growth - > Entrepreneurial Sustainability	0.038	0.038	0.014	2.672	0.014	0.069	0.000	0.016	0.074	0.008
Digital Strategy -> Startup Growth - > Entrepreneurial Sustainability	0.122	0.122	0.036	3.394	0.057	0.198	0.000	0.059	0.201	0.001

The findings imply that emotional intelligence has an in-depth oblique impact on Entrepreneurial Sustainability through startup growth (O = 0.047, p = 0.011) and via virtual technique (O = 0.140, p = 0.000), emphasizing its characteristic in fostering long-time period employer viability. Additionally, emotional intelligence absolutely affects startup growth through best investment timing (O = 0.128, p = 0.000) and digital strategy (O = 0.121, p = 0.001), further demonstrating its strategic importance in commercial enterprise improvement. Furthermore, best funding timing drastically influences Entrepreneurial Sustainability via startup boom (O = 0.077, p = 0.002) and virtual approach (O = 0.168, p = 0.000), highlighting its role in optimizing growth strategies. The mixed mediation of satisfactory investment timing and virtual method additionally results in an exquisite oblique effect on startup boom (O = 0.146, p = 0.000), reinforcing the interconnected nature of these constructs. Notably, virtual strategy performs a vital mediating function, as evidenced by way of its indirect impact on Entrepreneurial Sustainability through startup increase (O = 0.122, p = 0.001), confirming its significance in maintaining long-time period commercial enterprise success. The multi-step mediation pathways, along with emotional intelligence → quality

investment timing → digital strategy → startup growth → entrepreneurial (O = 0.016, p = 0.018), illustrate the complex interactions that pressure sustainable business development. Overall, those outcomes underscore the intricate community of relationships between emotional intelligence, funding timing, digital strategy, and startup boom, highlighting their collective impact on Entrepreneurial Sustainability.

(7) Total Effects:

The total results analysis highlights the direct and oblique contributions of emotional intelligence, excellent investment timing, and digital method to startup boom and Entrepreneurial Sustainability.

Table (14): Total effects

<u>Total effects</u>	<u>Original sample (O)</u>	<u>Sample mean (M)</u>	<u>Standard deviation (STDEV)</u>	<u>T statistics (O/STDEV)</u>	<u>Confidence intervals</u>		<u>Confidence intervals bias corrected</u>			<u>P values</u>
					2.5%	97.5%	Bias	2.5%	97.5%	
Emotional Intelligence -> Quality Investment Timing	0.433	0.435	0.046	9.328	0.341	0.524	0.001	0.336	0.520	0.000
Emotional Intelligence -> Digital Strategy	0.392	0.393	0.064	6.153	0.264	0.514	0.001	0.255	0.503	0.000
Emotional Intelligence -> Startup Growth	0.494	0.496	0.043	11.405	0.407	0.577	0.002	0.397	0.570	0.000
Emotional Intelligence -> Entrepreneurial Sustainability	0.289	0.290	0.056	5.136	0.179	0.400	0.001	0.177	0.396	0.000
Quality Investment Timing -> Digital Strategy	0.310	0.309	0.066	4.680	0.178	0.438	-0.001	0.178	0.439	0.000
Quality Investment Timing -> Startup Growth	0.441	0.441	0.054	8.134	0.334	0.543	0.000	0.335	0.543	0.000
Quality Investment Timing -> Entrepreneurial Sustainability	0.330	0.327	0.069	4.755	0.189	0.456	-0.003	0.192	0.460	0.000
Digital Strategy -> Startup Growth	0.470	0.471	0.053	8.834	0.364	0.570	0.001	0.357	0.565	0.000
Digital Strategy -> Entrepreneurial Sustainability	0.663	0.667	0.040	16.434	0.583	0.744	0.004	0.575	0.737	0.000
Startup Growth -> Entrepreneurial Sustainability	0.259	0.260	0.071	3.652	0.122	0.401	0.001	0.123	0.401	0.000

The findings advocate that emotional intelligence has a strong overall effect on startup growth (O = 0.494, p = 0.000) and exceptional funding timing (O = 0.433, p = 0.000), underscoring its position in improving each strategic desire-making and usual agency improvement. Additionally, emotional intelligence notably impacts virtual method (O = 0.392, p = 0.000) and Entrepreneurial Sustainability (O = 0.289, p = 0.000), demonstrating its significance in shaping lengthy-term company viability. Similarly, great investment timing famous suggests a robust wonderful impact on startup will increase (O = 0.441, p = 0.000) and Entrepreneurial Sustainability (O = 0.330, p = 0.000), indicating that well timed investments contribute both to quick-time period enlargement and lengthy-term resilience. Additionally, fine investment timing simply influences digital method (O = 0.310, p = 0.000), in addition reinforcing its position in strategic planning and aggressive positioning. Moreover, digital method plays a pivotal characteristic in riding both startup growth (O = 0.470, p = 0.000) and Entrepreneurial Sustainability (O = 0.663, p = 0.000), with the latter effect being specifically counseled. This shows that effective digital strategies function a key enabler of lengthy-term business fulfillment, providing corporations with the gear to evolve, scale, and maintain competitiveness. Finally, startup growth exerts a widespread impact on Entrepreneurial Sustainability (O = 0.259, p = 0.000), confirming that enterprise expansion and marketplace presence contribute right away to lengthy-term sustainability. In summary, these outcomes spotlight a complex however based community of interdependencies among emotional intelligence, investment timing, digital approach, and industrial corporation performance. The findings

emphasize the prominent position of digital technique in maintaining entrepreneurial success, even as additionally validating the strategic importance of emotional intelligence and funding timing in fostering each brief-time period growth and prolonged-time period resilience.

4th: Results:

The cumulative findings from the conducted analyses underscore the important interaction between emotional intelligence, fine funding timing, virtual strategy, startup increase, and Entrepreneurial Sustainability. The consequences display that emotional intelligence serves as a foundational motive force, influencing each direct and indirect pathways that decorate virtual approach, funding selection-making, and normal enterprise overall performance. This highlights the crucial function of leadership abilities, adaptive choice-making, and strategic foresight in fostering commercial enterprise fulfillment.

Quality funding timing emerges as a pivotal mediating thing, reinforcing its significance in optimizing resource allocation and marketplace positioning. The strong relationships among funding timing and each startup increase and sustainability endorse that timely and well-deliberate financial choices are vital for ensuring business expansion and long-term viability.

Furthermore, virtual approach plays an imperative function in bridging the space among operational performance and sustainable enterprise outcomes. Its massive impact on each startup increases and Entrepreneurial Sustainability reinforces the argument that era-pushed techniques, digital transformation, and innovation adoption are key determinants of long-term aggressive benefit.

The unique indirect effects further monitor a structured cascade in which emotional intelligence in a roundabout way complements sustainability and growth through its effect on funding timing and virtual approach. This demonstrates that managerial skills and strategic foresight do not most effective yield instantaneous advantages but also create compounding blessings through the years.

Finally, the robust hyperlink among startup increases and Entrepreneurial Sustainability indicates that business expansion, market penetration, and operational efficiency directly contribute to long-term enterprise resilience. This reinforces the significance of included strategic planning, adaptive leadership, and data-pushed investment choices in sustaining entrepreneurial ventures.

In end, the look at validates a multi-layered framework of enterprise fulfillment, in which emotional intelligence, funding timing, and digital method function center pillars shaping each short-term boom and lengthy-term sustainability. These findings spotlight the need of a holistic, strategically aligned approach to entrepreneurship, wherein management, monetary prudence, and digital transformation together decorate business resilience in a dynamic and aggressive environment.

5th: Recommendations:

Based on the findings, several key recommendations emerge to enhance entrepreneurial success, strategic decision-making, and long-term business sustainability:

1. Incorporate Emotional Intelligence in Leadership Development: Given the vast effect of emotional intelligence on digital method, investment timing, and commercial enterprise growth, it is miles critical for marketers and business leaders to engage in centered training applications. These programs need to focus on developing self-cognizance, adaptability, and strategic foresight, enhancing choice-making underneath uncertainty, and enhancing investment outcomes and commercial enterprise resilience.
2. Adopt Data-Driven Investment Planning: Since exceptional investment timing is essential for riding startup increase and sustainability, marketers should leverage records-pushed economic making plans and marketplace intelligence systems. Implementing predictive analytics and real-time financial tracking will optimize capital allocation, danger control, and foster sustainable increase.
3. Leverage Digital Strategy for Growth and Sustainability: Digital transformation performs a pivotal function in accelerating startup growth and making sure lengthy-term sustainability. Businesses need to put money into AI-driven business intelligence, automatic selection-making gear, and scalable digital infrastructure to remain competitive in unexpectedly evolving markets.

4. Pursue a Balanced Approach to Growth and Sustainability: Entrepreneurs want to align short-time period growth strategies with lengthy-term resilience. This calls for strategic reinvestment in innovation, persistent variation to market tendencies, and fostering an enterprise subculture focused on sustainability.
5. Promote a Multidisciplinary Approach to Entrepreneurship Education: The interdependence of emotional intelligence, funding choices, and virtual transformation indicates the need for a comprehensive method. Policymakers, traders, and educators need to integrate leadership schooling, economic literacy, and virtual innovation into entrepreneurship schooling and business incubation packages to equip marketers with the important talents for achievement.

5th: Conclusion

This looks at gives a complete evaluation of the complicated interrelations between emotional intelligence, high-quality investment timing, virtual approach, startup growth, and Entrepreneurial Sustainability. The findings emphasize the critical role of emotional intelligence in shaping strategic choice-making, especially in influencing virtual transformation, investment timing, and overall business growth. Furthermore, fine funding timing emerged as a critical thing for startup achievement, underscoring the importance of data-driven financial making plans and hazard management.

The outcomes additionally spotlight the full-size impact of virtual strategy on both startup boom and long-time period Entrepreneurial Sustainability. This underscores the need for organizations to combine superior technological solutions, digital transformation frameworks, and adaptive commercial enterprise fashions to navigate converting market dynamics. Moreover, the strong connection among startup boom and Entrepreneurial Sustainability shows that a balanced and strategic method is vital for making sure lengthy-time period viability and competitiveness.

By synthesizing these insights, the studies contribute to each theoretical and practical discussions on sustainable entrepreneurship and strategic enterprise development. Future research could discover quarter-precise packages, the influence of outside marketplace forces, and the lengthy-term consequences of emerging digital innovations on entrepreneurial ecosystems. The findings offer a foundation for policymakers, educators, and enterprise leaders to expand evidence-based strategies that foster innovation, resilience, and sustained commercial enterprise success.

References:

- 1- Abdelwahed, N. A. A., Soomro, B. A., & Shah, N. (2022). The role of environment, business, and human behavior towards Entrepreneurial Sustainability. *Sustainability*, 14(5), 2517.
- 2- Al Dahabreh, N. M. (2019). *The Impact of Emotional Intelligence of Entrepreneurs on Creativity: Moderating Role of Personal Traits* (master's thesis, Princess Sumaya University for Technology (Jordan)).
- 3- Arya, B., Horak, S., Bacouel-Jentjens, S., & Ismail, K. (2023). Leading Entrepreneurial Sustainability initiatives in emerging economies. *International Journal of Emerging Markets*, 18(1), 64-85.
- 4- Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. V. (2013). Digital business strategy: toward a next generation of insights. *MIS quarterly*, 471-482.
- 5- Cheng, J., & Lippitt, J. (2012). Business cycle and optimal timing for investment. *The Journal of Prediction Markets*, 6(1), 31-41. <https://doi.org/10.5750/jpm.v6i1.495>
- 6- De-Esteban-Escobar, D., De-Pablos-Heredero, C., Montes-Botella, J. L., & Blanco-Jiménez, F. J. (2025). Impact of emotional intelligence on the success of startups in business incubators. *Frontiers in Psychology*, 10, 1491792. <https://doi.org/10.3389/forgp.2025.1491792>
- 7- Edwards, D. S. (2020). The digital economy: A look at the integration of strategic entrepreneurship and innovation in digital startups. *Auckland University of Technology*.
- 8- Ghezzi, A., & Cavallo, A. (2020). Agile business model innovation in digital entrepreneurship: Lean startup approaches. *Journal of business research*, 110, 519-537.
- 9- Hoang, B., Walters, B., & Ring, J. K. (2022). Startup Rates, Economic Growth, and Entrepreneurship Quality: A Multilevel Model. *American Journal of Management*, 22(4).
- 10- Jankovic, S. D., & Curovic, D. M. (2023). Strategic integration of artificial intelligence for sustainable businesses: implications for data management and human user engagement in the digital era. *Sustainability*, 15(21), 15208.

- 11-Kim-Hung Lotto, L. A. I. A Study of Hong Kong Quality Startup Development for Supporting the Sustainable Business Growth.
- 12-Kitsios, F., & Kamariotou, M. (2023). Digital innovation and entrepreneurship transformation through open data hackathons: Design strategies for successful start-up settings. *International Journal of Information Management*, 69, 102472.
- 13-Kraus, N., Kraus, K., Manzhura, O. L. E. K. S. A. N. D. R., Ishchenko, I. N. N. A., & Radzikhovska, Y. U. L. I. I. A. (2023). Digital transformation of business processes of enterprises on the way to becoming industry 5.0 in the gig economy. *WSEAS Transactions on Business and Economics*, 93(20), 1008-1029.
- 14-Makhanya, B., & Thulani, M. (2024). Influences of emotional intelligence on resilience in the South African entrepreneurial sector: a systematic literature review. *International Journal of Research in Business & Social Science*, 13(7).
- 15-Miao, C., Humphrey, R. H., Qian, S., & Pollack, J. M. (2018). Emotional intelligence and entrepreneurial intentions: An exploratory meta-analysis. *Career Development International*, 23(5), 497-512.
- 16-Narain, N. (2019). Entrepreneurial Quality & Startup Growth in India (Doctoral dissertation, University of Pennsylvania).
- 17-Pathak, S., & Goltz, S. (2021). An emotional intelligence model of entrepreneurial coping strategies. *International Journal of Entrepreneurial Behavior & Research*, 27(4), 911-943.
- 18-Ringle, C. M., Wende, S., and Becker, J.-M. 2024. "SmartPLS 4." Bönningstedt: SmartPLS, <https://www.smartpls.com>
- 19-Setyawati, A., Djoewita, D., Sugangga, A., Wardana, L. W., & Hermawan, A. (2024). Literature Review: Digital Integration to Start a Sustainable Dream Business. *International Journal Business, Management, and Innovation Review*, 1(2), 01-18.
- 20-strategic flexibility—a recipe for business growth. *Journal of Small Business and Enterprise Development*, 29(3), 380-401.
- 21-Tang, J. J. (2020). Psychological capital and entrepreneurship sustainability. *Frontiers in Psychology*, 11, 866.
- 22-Teixeira, E. G., Moura, G. L. D., Lopes, L. F. D., Marconatto, D. A. B., & Fischmann, A. A. (2021). The influence of dynamic capabilities on startup growth. *RAUSP Management Journal*, 56(1), 88-108.
- 23-Thomas, A., Passaro, R., & Quinto, I. (2019). Developing entrepreneurship in digital economy: The ecosystem strategy for startups growth. In *Strategy and Behaviors in the Digital Economy*. IntechOpen.
- 24-Tornjanski, V., Čudanov, M., & Marinković, S. (2020). Shaping a new business landscape by empowering collective intelligence: Synergetic effects of open innovation, human and artificial cognitive and emotional intelligence. In *Proceedings of the 2nd Virtual International Conference: Path to a Knowledge Society-Managing Risks and Innovation-PaKSoM* (pp. 127-136).
- 25-Tur-Porcar, A., Roig-Tierno, N., & Llorca Mestre, A. (2018). Factors affecting entrepreneurship and business sustainability. *Sustainability*, 10(2), 452.
- 26-Vuorio, A. M., Puumalainen, K., & Fellnhofer, K. (2018). Drivers of entrepreneurial intentions in sustainable entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 24(2), 359-381.
- 27-Wang, H., Xu, Q., & Yang, J. (2018). Investment timing and optimal capital structure under liquidity risk. *The European Journal of Finance*, 24(11), 889–908. <https://doi.org/10.1080/1351847X.2017.1356342>
- 28-Xia, B., Guo, J. E., & Fung, R. Y. (2018). Quality investment timing by the startup and the established firm. *Managerial and Decision Economics*, 39(3), 275-284.
- 29-Yitshaki, R. (2021). Entrepreneurs' emotional intelligence as a factor explaining entrepreneurial psychological ownership and high-tech startup growth. *Journal of Small Business and Enterprise Development*, 28(4), 489-514. <https://doi.org/10.1108/JSBED-10-2020-0352>