



Factors Influencing Entrepreneurial Implementation Intentions among University Students in Eastern Uganda

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ABSTRACT

This paper investigates the entrepreneurial intention-action gap among university students in Eastern Uganda using an integrated framework based on the Theory of Planned Behavior, Resource-Based Theory, and Implementation Intention Theory. The study examines how personal attitudes, perceived behavioral control, contextual constraints, social support, and resource-related factors influence the transition from entrepreneurial intention to entrepreneurial action among university students.

Data were collected from 417 university students in Eastern Uganda using convenience and snowball sampling methods. Quantitative data were analyzed using Principal Component Analysis (PCA). The findings identified several factors influencing entrepreneurial action, including the role of peer and colleague support, perceived behavioral control, and contextual limitations. Although respondents demonstrated relatively high entrepreneurial intentions, personal attitudes; social desirability concerns, and resource constraints were found to hinder the entrepreneurial implementation process.

The study contributes to the entrepreneurial implementation intention literature by extending the application of established entrepreneurial implementation intention theories to the underexplored context of Eastern Uganda. While these theories have received considerable attention individually in entrepreneurship research, their combined application to examining the entrepreneurial intention-action gap among university students in developing economies remains limited. The findings provide contextual insights into the socio-economic, institutional, educational, and cultural factors shaping entrepreneurial behavior among youth in resource-constrained contexts. The study offers practical implications for policymakers, universities, and entrepreneurial support institutions by highlighting the need for targeted interventions that strengthen the ecosystem, improve access to resources, and address contextual and cultural barriers limiting the translation of entrepreneurial intentions into entrepreneurial action..

Keywords: Entrepreneurial Implementation Intentions; Entrepreneurial Intentions; Eastern Uganda; Developing Countries; Intention-action gap; University students.

JEL (Classification Code): L26; O55; O17

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1. INTRODUCTION

Entrepreneurship is a focal research area in developing countries due to its opportunities for economic agents and contribution to economic growth and development (Liao et al., 2022). Hill et al. (2022) asserted that entrepreneurship is a significant source of economic and social value creation and activity. Entrepreneurial activities by Micro, Small, and Medium Enterprises (MSMEs) provide employment opportunities critical to the growth of Uganda's economy and account for 90% of private sector firms (Ministry of Trade et al., 2024). Despite their immense contributions, entrepreneurial activities face problems due to global disruptions and gaps in implementation intentions (Kok & Berrios, 2019). Insights from the 2024 Uganda Entrepreneurial Index reveal significant regional disparities, stressing the imperativeness of targeted interventions to combat context-based challenges in underserved areas such as Eastern Uganda (Ministry of Trade et al., 2024). Rising global uncertainties, economic challenges, and widening inequalities continue to influence entrepreneurial activities, entrepreneurial intentions, and business formation patterns across developing economies.

However, despite the abundance of global attention and multifaceted approaches adopted, entrepreneurship faces diverse problems in all contexts, which hinder entry intentions, affect survival rates, and the level of contributions (Niels Bosma, 2020). While there is a wealth of research on the willingness and intent to become an entrepreneur in various contexts, the focus has primarily been on entrepreneurship intention (EI) rather than entrepreneurship implementation intention. This study contributes to the entrepreneurship literature by investigating the entrepreneurial intention-action gap among university students in Eastern Uganda within a resource-constrained developing economy context. The study draws on the recommendation that the implementation intention nexus should be incorporated into understanding entrepreneurship behaviors and actions (Liñán & Fayolle, 2015).

Researchers have investigated the study of entrepreneurial intentions from various perspectives, including personality (Crant, 1996), entrepreneurship education (Wijayati et al., 2021; Belgoum, 2020), environment readiness (Kallas, 2019), sustainable entrepreneurship (Sendawula & Turyakira, 2018), factors affecting social entrepreneurship intentions (Tiwari et al., 2017b), and graduate entrepreneurship in developing countries (Nabi & Liñán, 2011). Also, Kisubi's (2020) study of entrepreneurial intentions among 458 final-year University Students in Uganda posited that entrepreneurial intentions depend on situational elements and demographic dynamics. Data from the 2024 Uganda Entrepreneurship Index report (UEI) shows that Eastern Uganda(30%) had the lowest rate of entrepreneurial(business) registrations compared to Northern Uganda (48%), Kampala(45%), Western and Central Uganda(37%) (Ministry of Trade et al., 2024). The UEI report also indicates the existence of diverse forms of resource scarcity in the Eastern region compared to other regions. This highlights important structural and contextual challenges affecting entrepreneurial intention development among young people in the region. Understanding why entrepreneurial intentions do not always translate into entrepreneurial action requires broader theoretical and contextual viewpoints that extend beyond intention formation. Pham et al. (2021) defined entrepreneurship intentions as the intent to embark on a new business activity. However, having entrepreneurial intent alone does not guarantee that the individual will start the entrepreneurial activity. Entrepreneurship

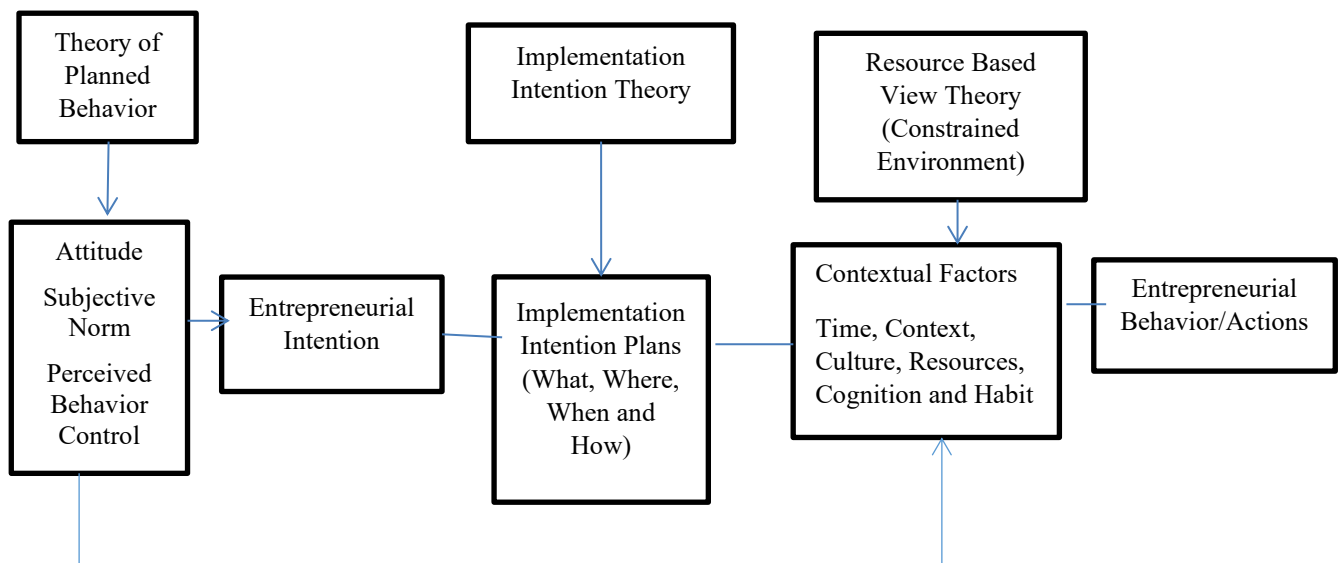
implementation intention is when plans are made to start the entrepreneurial activity (Haddoud et al., 2024). Most extant research has paid relatively limited attention to the unique entrepreneurial dynamics and implementation challenges within regions such as Eastern Uganda. In addition, the reliance on single theories, such as the Theory of Planned Behavior, cannot capture the complexity of entrepreneurial behavior. Therefore, integrating theoretical frameworks incorporating psychological, behavioral, and resource-based perspectives is critical to combating these problems.

Accordingly, this study adopts an integrated framework based on the Theory of Planned Behavior (TPB), Resource-Based View (RBV), and Implementation Intention Theory (IIT) to examine the factors influencing entrepreneurial implementation intentions among university students in Eastern Uganda. This paper is structured into four sections: theoretical and conceptual framework, methodology, results and discussions, and conclusion.

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

Extant research reveals that entrepreneurship activities and intention are linked to the dominant entrepreneurial national culture, family entrepreneurship exposure, socio-economic perceptions, climates, home-country, and entrepreneurship segment inclinations (Vieitez-Cerdeño et al., 2023). These factors highlight the multifaceted nature of entrepreneurship and its role in livelihood creation, poverty reduction, and economic activity (Okolie et al., 2021). Understanding the prevalent form of entrepreneurship necessitates insight into the business and policy environment (Georgellis & Wall, 2002), institutional environment (Khalilov & Yi, 2021), learning environment (Sitaridis & Kitsios, 2024), and enterprise architecture (Saleem & Fakieh, 2020). The 2021/2022 Global Entrepreneurship Monitor report highlights the negative effects of pandemic-induced disruptions on household incomes, entrepreneurial confidence, and business creation activities across several economies, driven by fear of failure, increased difficulty in starting a new business (Hill et al., 2022).

Figure 1. Conceptual and Theoretical Framework



(Source: Authors)

To comprehend entrepreneurial intentions (EI), entrepreneurial implementation intentions (EII), and entrepreneurial behavior among university students in Eastern Uganda, this study adopts an integrated theoretical perspective. Drawing on Von Bertalanffy's (1968) systems perspective, the study incorporates multiple theoretical viewpoints to provide a broader understanding of entrepreneurial behavior. Wacker (1998) emphasized that theory facilitates the development of a framework in the field of study and is relevant to solving real-life problems and issues. Theories provide important conceptual foundations for understanding complex entrepreneurial phenomena. Sandberg and Alvesson (2021) argued that the definitions of theory have been limiting, and they advocated the need to study theories through their ability to explain, enact, stimulate, and increase understanding. Haugh (2012) identified three main components in theory: an area of interest, constructs, and variables related to the area and web of relationships. This study draws on the Theory of Planned Behavior (TPB), Implementation Intention Theory (IIT), and the Resource-Based View (RBV) to explain the transition from entrepreneurial intention to entrepreneurial action (see Figure 1). The integrated framework highlights the complementary roles of the selected theories within the conceptual framework. For instance, TPB explains intention formation, IIT addresses actionable planning processes, and RBV showcases resource scarcity and accessibility in resource-constrained environments. This layered and structured approach strengthens the study's explanatory power without diluting the focus.

Scholarly evidence attests to Ajzen's (1991) Theory of Planned Behavior (TPB) as among the widely applied theories in entrepreneurship research. The postulation indicates that intention, influenced by personal attitude, subjective norms, and perceived behavioral control, is the strongest predictor of planned behavior. Within the EI framework, it is observed that most studies have relied on the theory of planned behavior to explore "how, why, when" individuals decide to pursue entrepreneurship. The TPB is relevant to understanding EI and EII and has been used in comparative, cross-cultural studies in diverse contexts. Ferreira et al. (2012) applied the TPB to a study of secondary school students, Ozaralli and Rivenburgh (2016), a cross-cultural study of 589 U.S. and Turkish students, also used the refined version of the TPB framework (Ajzen, 2005). Youssef et al. (2021) in Kosovo used TPB in the survey of 310 students in two universities and found that attitude is a significant determinant of EI. Kisubi (2020) also confirmed the strong link and relationship between entrepreneurship education and entrepreneurial attitude, while Liao et al. (2022) used it to highlight the importance of entrepreneurial knowledge. On the contrary, Israr and Saleem (2018) reported that entrepreneurial education harms entrepreneurial inclinations. Despite the wide application of TPB in entrepreneurship studies, relying solely on a single theoretical perspective may not sufficiently explain the complexity of entrepreneurial implementation behavior.

The complexity of entrepreneurial behavior and contextual influences advocates the need to complement TPB with implementation and resource-based standpoints. While TPB explains entrepreneurial intention formation, understanding how intentions are translated into entrepreneurial action requires additional insight into implementation planning and contextual resource limitations. Premised on this, this study integrates **Implementation Intention Theory** (Gollwitzer, 1999), which offers insight relating to the planning phase (e.g., "what," "where," and "when") that links intention to behavior. This is particularly relevant in African

entrepreneurship contexts characterized by volatility, uncertainty, institutional constraints, and limited access to entrepreneurial resources.

University students in Eastern Uganda and other African contexts face significant institutional and contextual barriers in accessing resources and support for their entrepreneurial ventures. The following conceptual equations, inspired by Ferreira et al. (2012), illustrate the psychological and behavioral dimensions influencing entrepreneurial intentions. Ferreira *et al.* (2012)

Equation 1: $EI = Pd + Bd$

Where EI=Entrepreneurial Intentions: Pd=Psychological Dimensions: Bd: Behavioral Dimensions

Equation 2: $Pd = Lc + Ra + Sc + An + Ta + Ln$

Where Pd =Psychological Dimensions: Lc=Locus of Control: Ra= Risk Appetite

Sc=Self Confidence : An=Achievement Need :TA=Tolerance of Ambiguity:

Ln = Level of Innovativeness

Equation 3: $Bd = PBc + Sn + Ia$

Where Bd=Behavioral Dimensions: PBc= Perceived Behavioral Control: Sn=Social Norm

Ia = Individual Attitude

The framework illustrates the interconnected psychological and behavioral factors capable of influencing entrepreneurial implementation intentions and actions. Furthermore, several studies have used different dimensions in conceptualizing EI and implementation contexts, using measurement scales and sample sizes. Studies show that entrepreneurship varies across fields, contexts, and horizons (Madichie et al., 2021, Khalilov and Yi, 2021). In addition, diverse theories have enhanced the understanding of different facets of entrepreneurship. Given the multidimensional nature of entrepreneurship, a systems-oriented perspective provides broader explanatory insight into entrepreneurial behavior. In addition, snippets from the 2021/2022 Global Entrepreneurship Monitor show that EI does not always result in entrepreneurial activities due to intervening factors such as fear and an unstable business environment. Previous research supports this position, suggesting that intention does not always lead to actual entrepreneurial behaviors (Nabi and Liñán, 2011). Despite the TPB framework, the causal relationship between intentions and behavior, entrepreneurship intention might be hindered by a lack of resources, culture, time, context, and cognitions (See Figure 1). Individuals may express strong entrepreneurial intentions due to social desirability influences despite lacking adequate implementation planning and resource readiness. Hart (1995) emphasized that resources consist of physical, financial, individual skills, and social dynamics. The Resource-based view theory (RBV) is premised on a robust framework that showcases the importance of understanding and having access to a confluence of resources, such as practical knowledge, relevant information, and assets (Barney, 2015). Although RBV has customarily been applied to explain firm-level competitive advantage, this study applies it as a contextual lens to explain how limited access to tangible and intangible resources constrains the transition from entrepreneurial intention to entrepreneurial action.

Newbert (2007) justifies the relevance of the resource-based view from the strategic management perspective to EII activities in developing countries. It is hinged on the premise that developing a competitive advantage is critical to EI and EII due to the scarcity of resources in most developing countries. The resource dimensions open to entrepreneurship depend on

location-specific endowments related to the level of infrastructure, institutional environment, cost of doing business, level of cognition, value chain, ease of entry and exit, tax, and personal attributes (Banwo et al., 2017). Evidence from the extant literature shows that RBV theory has undergone many criticisms yet remains relevant in behavioral and social psychology studies (Kraaijenbrink et al., 2010). This study highlights the importance of integrating multiple theoretical perspectives in understanding entrepreneurial behavior within developing economy contexts. Using University students in Eastern Uganda as a reference point, the perceptions of resource scarcity, availability, and access can prompt and influence their intentions and implementation plans. Where the perceptions suggest that key resources are scarce, it would likely create significant barriers to EI and EII. Therefore, using RBV as a lens to understand resource perception and potential entrepreneurial entry strategies is critical to developing countries' contexts.

2.1 Implementation Intention Theory

Prestwich et al. (2015a) define implementation intention as the 'if-then plans that connect good opportunities to act with cognitive or behavioral responses that are likely to effectively accomplish one's goals'. The implementation intention theory is a further development in the entrepreneurship intention literature and is considered expedient in investigating the intention-action dyad. According to Zieglmann et al. (2007), an individual develops implementation intention when the three cardinal triads of when, where, and how the proposed action and behavior are definite. They describe this process as routinized action planning within situational environments. Fayolle and Liñán (2014) contend that mental and cognitive dogmas underscore the necessity to gain a broad insight into the decision-making dynamics of potential and practicing entrepreneurs within the purview of context, culture, and institutional systems.

Furthermore, scholars have advocated the need to explore the implementation intention decisions of potential entrepreneurs. Fayolle and Liñán (2014) advocated considering implementation intention as a precursor to entrepreneurship actions. Extant research and studies show why researchers need to use the Implementation intention theory to construe the intention-behavior nexus since intention is a precursor for goal achievement, which comprises the interplay of habit and personality (Brandstätter et al., 2001). Implementation Intention Theory suggests that intentions not supported by concrete action planning are less likely to result in actual behavior. Thus, a definite plan that encapsulates “who”, “when”, “where”, and “when” of the envisaged behavior has a greater propensity to lead to actions. This commitment is presumed to predict further the intended entrepreneurship behavior (Fayolle et al., 2011). Studies reflect the strength of implementation intention as a veritable mechanism for overcoming problems and threats related to goal intentions, feasibility, and actualization within a time frame and reducing the intention-action gap (Prestwich et al., 2015b).

According to the GEM 2022 report, the differences, confusion, and debate relating to intention, implementation, and the action gap framework are inherent in human behavior. Gollwitzer (1999) states that EII are the "if-then plans that link situational cues (i.e., good opportunities to act, critical moments) with responses that are effective in attaining goals or desired outcomes." The EII analogy posits that there is interdependency where the occurrence of a situation (A) leads to the enactment of particular behaviors (B) (Brandstätter et al., 2001). Thus, situation cues and cognitive mental framing lead to desired responses related to the goal. Holding an EII

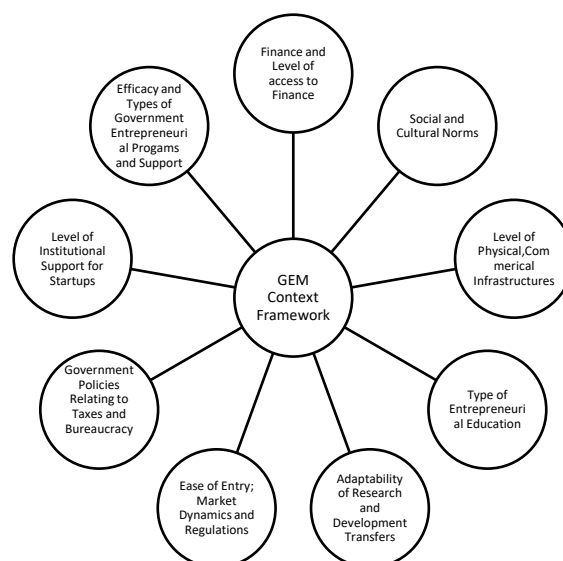
commits the individual to performing a specific goal-directed behavior once a critical situation is encountered.

The flipside of implementation intention is goal intention, and this occurs when individuals signify a commitment to pursue behaviors tailored toward specific outcomes (Landis et al., 1978). This, however, does not always suffice since the first-order step (intention) and second-order step (goal intention implementation) are often subjected to different contextual and personal constraints (Gollwitzer and Sheeran, 2006). Ziegelmann et al. (2007) posited that goal intention is time-target dependent and embodies "what" individuals intend to achieve within a given time frame, while EII are synonymous with action planning and depict a higher-level process when a person knows the details of how, where, and when the projected plans and actions will be pursued.

Harima et al. (2021) explained that with time, there is a tendency for individuals to develop "cold feet" and second thoughts due to competing interests and procrastination in pursuing their entrepreneurial dreams and goals. This thought process is like a circuit breaker that causes inaction despite a favorable contextual environment and opportunities. In addition, the presence and interplay of three processes (intention viability, situational cues, level of detailed intention information, and plan) are identified as responsible for the intention-behavior dichotomy (Prestwich et al., 2015b). Despite the capabilities and benefits of having implementation intention, individuals may face inbuilt and inherent constraints related to the strength of their habits. Empirical studies on habit strength show its ability to limit and delay behavioral change and actions (Orbell and Verplanken, 2015). For instance, according to Gollwitzer (1999), a person's past behaviors are likely to predict behavior better. Understanding the psychological, behavioral, and contextual factors influencing entrepreneurial intentions and implementation actions remains critical in entrepreneurship research and practice (Gollwitzer, 2006). Individual differences and personalities play a significant role in this. For instance, individual differences can cause one entrepreneur to see problems in a given context, while another sees opportunities in the problems and decides to take a risk. Unforeseen circumstances, skills gaps, time lag, constraints, and resource gaps could hinder the level of the intention-action framework.

2.2 Context Dynamics

Studies on EI, EII, and entrepreneurial activities conducted in different countries have yielded diverse findings, which can be attributed to the influence of contextual factors. This highlights the important role of context in shaping entrepreneurial interactions, policies, and environmental dynamics (Boettke and Coyne, 2009). Although resources within a location are important, their availability does not automatically guarantee increased entrepreneurial intentions or entrepreneurial activity. For instance, the level of entrepreneurial activities in some developed countries, where access to finance is available and cheap, has not necessarily led to a corresponding increase in entrepreneurship. Conversely, resource scarcity may sometimes motivate individuals to pursue entrepreneurial action as a survival or opportunity-driven strategy (Banwo et al., 2017). Therefore, understanding the relationship between the environment and enterprises across disciplines is crucial (Miner, 2015). For instance, experiments are conducted in specific environments and contexts in the sciences, and variations in any of the variables often result in different outcomes. The GEM reports advocate the need to consider the context within entrepreneurial framework dynamics (Figure 2).

Figure 2. Entrepreneurial Context Framework Dynamics

Source: Authors' Adaptation of GEM Context Framework

Figure 2 illustrates the complex interplay of factors that may hinder or facilitate entrepreneurial activities. The effectiveness of entrepreneurial navigation within this framework is influenced by individual cognition, personality, social capital, social status, and behavioral orientation. University students may demonstrate high entrepreneurial intentions without possessing the capabilities and resources required to manage the complexities of the business environment. Competencies, capabilities, and contextual conditions form an interconnected framework that significantly influences entrepreneurial behavior and implementation decisions. Although competencies and capabilities are important entrepreneurial resources, their possession alone does not guarantee a competitive advantage or business (Smith, 2008).

3. METHODOLOGY

3.1. Scale

This study employed a quantitative research design to investigate entrepreneurship and implementation intentions among university students in Eastern Uganda. The structured questionnaires had strict inclusion criteria that required survey participants to be enrolled in a university. Any survey respondents who did not meet this criterion were excluded. The survey questionnaire included an informed consent statement, the study's purpose, the confidentiality of their responses, and their freedom to participate. The questionnaire was administered online using Surveyface and distributed via WhatsApp groups. The online distribution approach enabled broader access to university students in Eastern Uganda and improved the efficiency of data collection.

Respondents were engaged using convenience and snowball sampling techniques. Convenience sampling enabled access to university students who were willing to participate and readily available, while snowball sampling allowed wider coverage through student peer referrals. The use of these non-probability sampling methods is consistent with prior entrepreneurship intention studies involving student populations where ample sampling frames

are hard to reach (Liñán & Chen, 2009; Tiwari et al., 2017a). Similar approaches have been employed in studies examining entrepreneurial intention among university students in developing and emerging economy contexts due to practical accessibility constraints and the exploratory nature of entrepreneurial cognition research.

Nevertheless, the usage of convenience and snowball sampling presents significant methodological limitations. First, the sample may not entirely embody the broader populace of university students in Uganda, because participation depended largely on accessibility, network connections, access to the internet, interest, and willingness to respond. Also, students with perceived entrepreneurial interests may have been more likely to participate, thereby introducing self-selection bias. Consequently, the findings should be inferred cautiously, predominantly regarding their external validity and generalizability beyond the sampled universities and geographical setting. Second, the use of WhatsApp for distribution may have excluded students with limited internet access or lower participation in online student communities, potentially affecting sample diversity. While these limitations do not invalidate the findings, they suggest that the results are more appropriately interpreted as indicative rather than fully representative of all university students in Uganda and other African communities where internet access costs are much higher.

Despite these limits, the study ensured sample diversity by including students from different countries, demographics, academic disciplines, and study levels to improve the robustness of the findings. In addition, the factor structure observed in the Principal Component Analysis (PCA) established consistency with constructs established in prior entrepreneurial intention literature, signifying satisfactory construct stability despite the sampling limitations. The findings also align broadly with previous studies that report significant relationships between entrepreneurial intentions, perceived behavioral control, and implementation planning among university students in emerging economies. The role of the PCA in this study was exploratory rather than causal. Specifically, PCA was used to identify underlying factor structures, construct relationships, and explore patterns within entrepreneurial intention and implementation intention dimensions among university students in Eastern Uganda. Accordingly, the study does not seek to establish causal relationships among variables, but rather to provide contextual and exploratory insight into the entrepreneurial intention-action gap within a developing economy setting. Several studies on EIs have used the Liñán and Chen (2009) scale in their questionnaire design. The preponderance of several intention frameworks confirms the complexity and non-uniformity in measurement items used in studying this construct (Tiwari et al., 2017a). The questionnaire used in this study was adapted from versions by Ziegelmann et al. (2007), Van Gelderen et al. (2018), and Sniehotta et al. (2005) to measure goal intentions and implementation intentions.

The questionnaire utilized a 5-point Likert scale, ranging from “strongly disagree” to “strongly agree.” Some of the items include: “I have already planned precisely when to take the first step towards starting a business.” “I have already planned precisely where to start a business.” Example entrepreneurial intentions items included: “I am ready to do anything to be an entrepreneur,” “my professional goal is to become an entrepreneur,” and “I have the firm intention to start a business someday.” Example perceived behavioral control items included: “starting a firm and keeping it working would be easy for me” and “I can control the creation process of a new firm.” Personal norms (“Being an entrepreneur would give me great

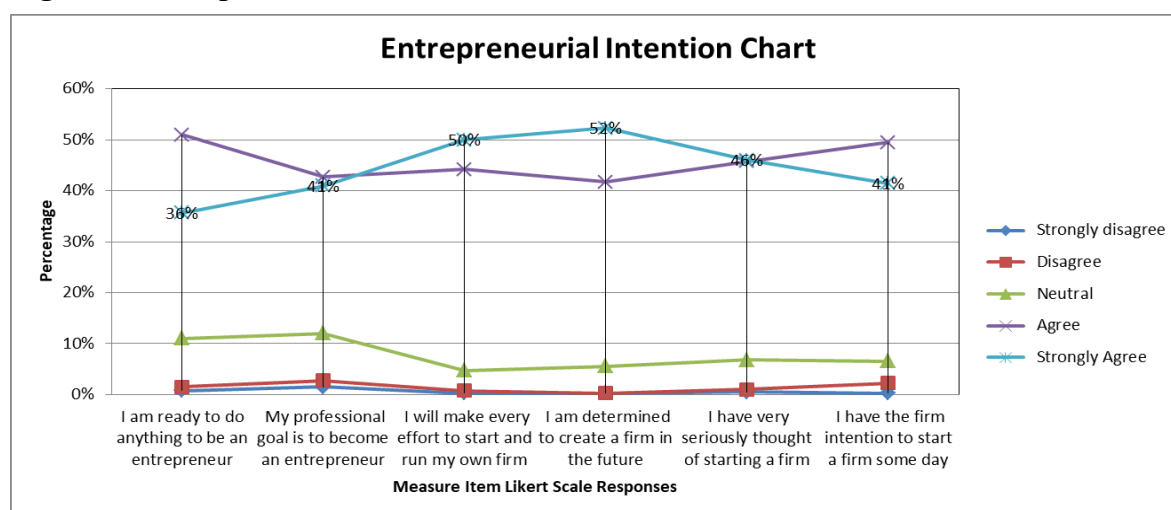
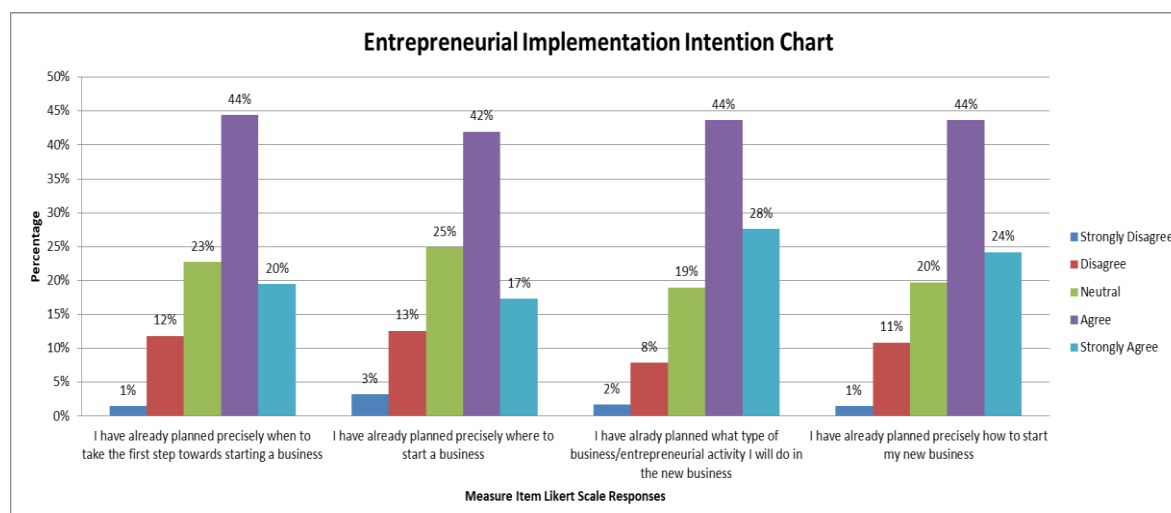
satisfaction; I would rather be an entrepreneur instead of working as an employee”) and family orientation (“Some of my family members/relatives are entrepreneurs/own their own business; none of my family members/relatives are entrepreneurs”) were also measured using adapted scale items. Quantitative data analysis was performed using Factor Analysis with the Principal Component Analysis (PCA) extraction method using Version 22 of the IBM Statistical Package for the Social Sciences (SPSS). This technique was used to identify underlying factor structures and patterns within the dataset. While PCA reduced dimensionality in the dataset and provided valuable insights into goal and implementation intentions, the interpretation of findings should still be viewed within the context of the sampling limitations identified above.

3.2.Participants

The survey instrument examined demographic variables, entrepreneurial family orientation, personal attitudes, subjective norms, perceived behavioral control, entrepreneurial intentions, and implementation intentions. Table I presents the demographic characteristics of the 417 respondents who completed the online questionnaire. Notably, 224 (54%) were male, 185 (44%) were female, and 8(2%) did not specify their gender. The majority of respondents were within the age ranges 21-25 (60%), 26-30(15%), 31-35(11%), 36-40(5%), 16-20(4%), and 41-45(3%). The respondents' country of origin varied, with the majority from Uganda (88%) and smaller percentages from Somalia (8%), Kenya (4%), Malawi (3%), Others (2%), Tanzania, and Sudan 1% respectively. In terms of their program of study, the majority were enrolled in Business-related courses/degrees (77%), followed by non-business-related courses/degrees (22%), and other disciplines (1%). Regarding marital status, 71% of respondents were single, 24% were married, and 5% belonged to other categories.

Table 1. Survey Respondents' Demography

Gender	Response Percent	Response Count
Male	54%	224
Female	44%	185
Undefined	2%	8
Total	100%	417
Age Range	Response Percent	Response Count
16-20	4%	18
21-25	60%	252
26-30	15%	62
31-35	11%	45
36-40	5%	20
41-45	3%	14
46- above	1%	3
Undefined	1%	3
Total	100%	417
Marital Status	Response Percent	Response Count
Single	71%	298
Married	24%	98
Divorced	0%	2
Others	5%	19
Total	100%	417
Country of Origin	Response Percent	Response Count
Uganda	88%	368
Somalia	8%	32
Kenya	1%	4
Tanzania	0%	1
Sudan	0%	1
Malawi	1%	3
Others	2%	8
Total	100%	417

Figure 3. Entrepreneurial Intention Chart**Figure 4. Implementation Intention Chart.**

Source: Authors

4. RESULTS

The following section presents the empirical findings relating to entrepreneurial intention, implementation intention, subjective norms, perceived behavioral control, and personal attitudes among university students in Eastern Uganda. The survey respondents displayed varying levels of entrepreneurial intention (EI) and entrepreneurial implementation intention (EII), revealing an obvious gap between intention formation and implementation-oriented planning. Figure 3 shows that the university students demonstrated strong entrepreneurial intentions, reflected in their determination to create a new business in the future (94%), readiness to become entrepreneurs (87%), and firm intention to start a business (91%). In contrast, only a small proportion of respondents (0%–6%) expressed disinterest, while 5%–11% reported neutral entrepreneurial intentions.

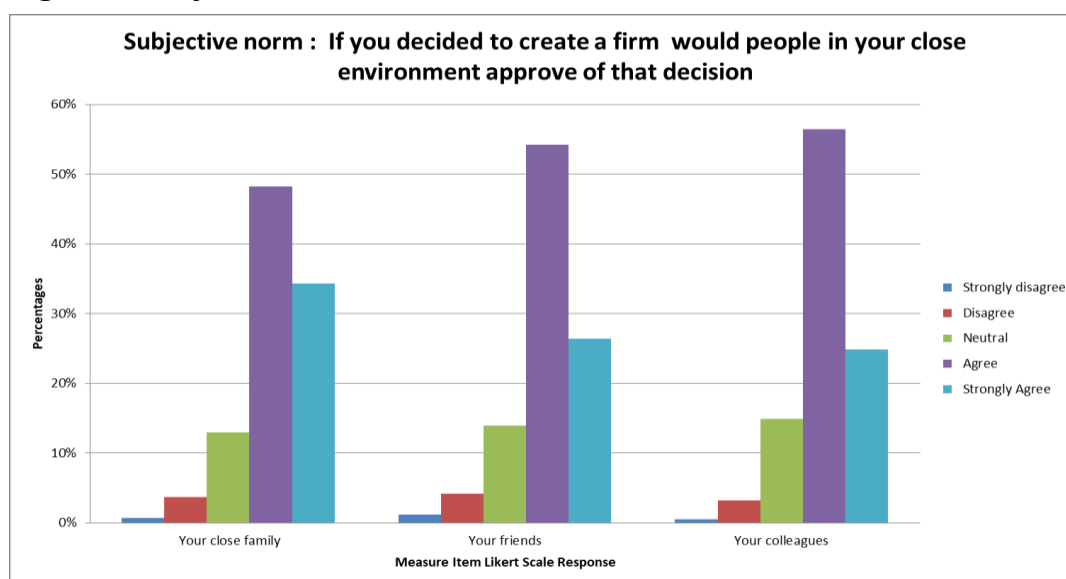
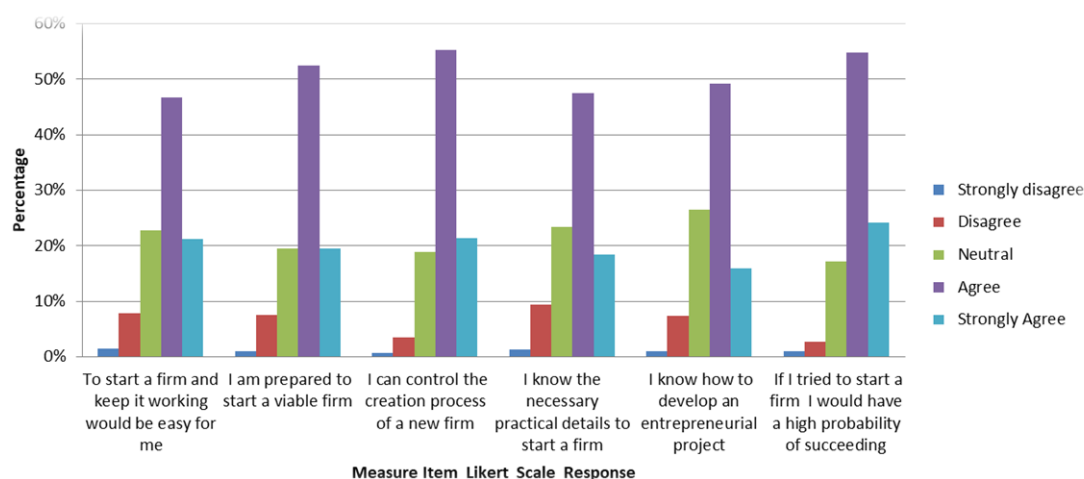
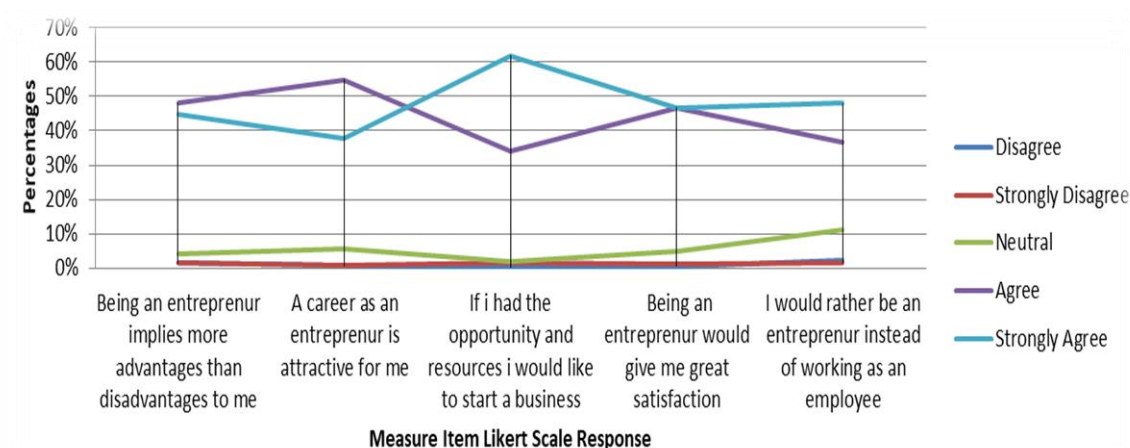
The high entrepreneurial intention levels reported by respondents may be associated with entrepreneurial family orientation, exposure to successful entrepreneurial relatives (83%),

enrollment in business-related programs (77%), personal attitudes, subjective norms, and perceived behavioral control. The findings also reinforce the Theory of Planned Behavior (TPB), particularly the importance of subjective norms and perceived behavioral control in shaping entrepreneurial intentions. Respondents who reported stronger family entrepreneurial orientation, social approval, and confidence in their entrepreneurial capabilities demonstrated stronger entrepreneurial intentions, consistent with Ajzen's (1991) assertion that entrepreneurial behavior is influenced by attitudes, social norms, and perceived behavioral control. However, the relatively weaker implementation intentions despite high entrepreneurial interest suggest that intention formation alone may not sufficiently predict entrepreneurial action in resource-constrained environments.

A similar study conducted in India also found that personal attitude, subjective norms, and perceived behavioral control significantly predict students' entrepreneurial intentions (Siddiqui et al., 2023). The findings may also reflect elements of social desirability bias, consistent with observations reported in prior entrepreneurship studies (Ohanu and Ogbuanya, 2018). However, Figure 4 reveals a wider disparity in entrepreneurial implementation intention outcomes relating to students' entrepreneurial planning activities. The findings suggest that many university students have not fully developed concrete implementation plans for starting a business. The measurement items focused on respondents' understanding of the "when," "where," "what," and "how" dimensions of entrepreneurial planning. The findings further reveal that a significant proportion of students (19%–25%) reported neutral responses regarding entrepreneurial planning and implementation activities, compared to lower neutrality levels relating to entrepreneurial intentions (5%–12%). Additionally, the proportion of respondents who agreed that they had entrepreneurial plans (42%–44%) was considerably higher than those who strongly agreed (17%–28%), suggesting varying levels of implementation preparedness.

Sniehotta et al. (2016) asserted that planning involves a mental state that addresses three critical elements ("how," "when," and "where") essential for goal pursuit and actions. This disparity suggests that weak implementation intentions may hinder the translation of entrepreneurial interest into entrepreneurial action due to the influence of multiple contextual and behavioral constraints (see Figure 1). The findings relating to EI and EII support the argument that entrepreneurial intentions do not always translate into entrepreneurial action (Liñán and Chen, 2009). These findings strongly support the assumptions of Implementation Intention Theory (IIT), which posits that entrepreneurial intentions alone are insufficient without concrete action plans relating to when, where, and how entrepreneurial behavior will occur. While respondents demonstrated high entrepreneurial intentions, the comparatively lower implementation intention scores suggest that many students remain at the motivational stage without progressing to the volitional and action-planning stage required for entrepreneurial execution. This finding aligns with Gollwitzer (1999) and Sniehotta et al. (2005), who argue that implementation intentions reduce the intention-action gap by translating abstract intentions into actionable behavioral commitments.

Several factors may explain the intention-action gap, including resource constraints, limited entrepreneurial knowledge, fear of failure, timing considerations, cognitive schemas, and restricted access to entrepreneurial support systems. Furthermore, although many students undertake entrepreneurship and business-related courses, their theoretical exposure may not necessarily translate into practical entrepreneurial planning and implementation capabilities.

Figure 5. Subjective Norm Chart**Figure 6. Perceived Behavioral Control****Figure 7. Personal Attitude Chart**

Figures 5 to 7 present findings relating to personal attitude, subjective norms, and perceived behavioral control, highlighting the complex nature of entrepreneurial behavior. The mixed findings observed within the study context may have been influenced by respondents' demographic backgrounds and multifaceted socio-cultural contexts. Additionally, 83% of respondents reported having family members or relatives engaged in entrepreneurial activities. Also, findings relating to subjective norms (Figure 5) indicate that respondents perceived greater entrepreneurial support from friends and colleagues than from family members. This unexpected finding relating to social norms might be related to culture, family values, and gender. The findings reinforce the relevance of subjective norms within Ajzen's Theory of Planned Behavior and broader entrepreneurship intention literature. Figure 7 further shows that respondents demonstrated highly positive attitudes toward entrepreneurship and willingness to explore entrepreneurial opportunities. However, approximately 11% of respondents remained neutral regarding whether they preferred entrepreneurship over salaried employment. Higher levels of neutrality were observed within the perceived behavioral control dimension (18%–25%), suggesting uncertainty regarding the practical “how,” “what,” “where,” and “when” dimensions of entrepreneurial implementations.

5. DISCUSSIONS

This study investigates the dynamics of entrepreneurial intention (EI) and entrepreneurial implementation intention (EII) among university students in Mbale, Eastern Uganda. The measurement items focused on subjective norms, perceived behavioral control, entrepreneurial intentions, and implementation intentions. The adapted scale items were tested to determine reliability and internal consistency using Cronbach's alpha standardized score. The Cronbach's alpha coefficient ($\alpha = .86$) indicated strong internal consistency and acceptable reliability of the measurement constructs (Blok et al., 2015, Costello and Osborne, 2019). Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) measure (.88; $p < .0001$) confirmed sample adequacy and suitability of the dataset for factor analysis based on established methodological guidelines (Tabachnick and Fidell, 2007, Shrestha, 2021). Principal Component Analysis (PCA) was subsequently conducted to examine the suitability and underlying structure of the measurement items. The PCA results revealed four factors with eigenvalues greater than one, collectively accounting for 61% of the total variance following Varimax rotation. Varimax rotation was adopted due to its widespread application and acceptability in factor analysis studies (Costello and Osborne, 2019).

Table 2. Total Variance Explained

Total	Variance	Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Variance	%	Total	% of Variance	%	Total	Variance	Cumulative %
1	6.371	33.531	33.531	6.371	33.531	33.531	3.391	17.848	17.848
2	2.280	11.999	45.530	2.280	11.999	45.530	3.135	16.500	34.348
3	1.634	8.601	54.131	1.634	8.601	54.131	3.061	16.109	50.457
4	1.379	7.257	61.388	1.379	7.257	61.388	2.077	10.931	61.388
5	.968	5.094	66.481						
6	.798	4.198	70.680						
7	.711	3.742	74.421						
8	.598	3.148	77.569						
9	.567	2.982	80.551						
10	.508	2.676	83.227						
11	.494	2.601	85.829						
12	.440	2.315	88.144						
13	.413	2.174	90.318						
14	.374	1.968	92.286						
15	.358	1.886	94.172						
16	.331	1.745	95.917						
17	.302	1.589	97.506						
18	.250	1.318	98.824						
19	.223	1.176	100.000						

Extraction Method: Principal Component Analysis.

Table 3. Rotated Component Matrix

	<i>Component</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Entrepreneurial Intention: I am determined to create a firm in the future	.806			
Entrepreneurial Intention: I will make every effort to start and run my own firm	.761			
Entrepreneurial Intention: I have the firm Intention to start a firm someday	.705			
Entrepreneurial Intention: I have very seriously thought of starting a firm	.697			
Entrepreneurial Intention: My professional goal is to become an entrepreneur :	.618			
Personal Attitude: Being an entrepreneur would give me great satisfaction	.516			
Entrepreneurial Intention: I am ready to do anything to be an entrepreneur	.490	.453		
Personal Attitude: I would rather be an entrepreneur instead of working as an employee	.469			
Perceived behavior control: I know the necessary practical details to start a firm		.718		
Perceived behavior control: I can control the creation process of a new firm		.697		
Perceived behavior control: I know how to develop an entrepreneurial project :		.671		
Perceived behavior control: I am prepared to start a viable firm		.664		
Perceived behavior control: If I tried to start a firm, I would have a high probability of succeeding		.596		
Perceived behavior control: To start a firm and keep it working would be easy for me		.580		
Implementation Intention: I have already planned what type of business/entrepreneurial activity I will do in the new business			.837	
Implementation Intention: I have already planned precisely how to start my new business.			.829	
Implementation Intention: I have already planned precisely where to start a business			.829	
Implementation Intention: I have already planned precisely when to take the first step toward starting a business			.783	
Subjective norm: If you decided to create a firm, would people in your close environment approve of that decision? Friends				.840
Subjective norm: If you decided to create a firm, would people in your close environment approve of that decision? Colleagues				.771
Subjective norm: If you decided to create a firm, would people in your close environment approve of that decision? Family				.727

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

The rotated component matrix in Table 3 presents the factor loadings of the measurement items across four components derived from Principal Component Analysis (PCA) using Varimax rotation. The default coefficient display format was adjusted to an absolute value below .01 and factor loadings to 0.4 to avoid cross-loading issues caused by small coefficients (Ford et al., 1986). Cross-loadings occur when a variable demonstrates significant loadings across multiple components. For instance, an item in the entrepreneurial Intention, "I am ready to do anything to be an entrepreneur," has cross-loadings on components 1 and 2. Antonovica et al. (2023) confirm that cross-loading variables are relatively common in factor analysis studies and cross-loading variables are standard. When interpreting the factors, the loadings must be examined to determine the strength of the relationships. While higher factor loadings are useful for identifying dominant constructs, lower and near-zero loadings are also important for confirming factor structure interpretation (Gorsuch, 1997, 2014). A high loading generally indicates a strong relationship between a variable and the associated factor, whereas lower loadings suggest weaker relationships.

- **Entrepreneurial Intention and Personal Attitude (Component One):** The Entrepreneurial Intention items indicate a dominant factor loading (.618 to .806). While

personal attitude items, such as "Being an entrepreneur would give me great satisfaction" (.516) and "I would rather be an entrepreneur instead of working as an employee" (.469), also load onto this component. This finding suggests that positive emotional perceptions toward entrepreneurship significantly influence entrepreneurial readiness and determination.

- **Perceived Behavioral Control (Component Two):** This component reflects respondents' perceived ability and control relating to starting and managing a business venture (.580 to .718). The factor loadings indicate that confidence in entrepreneurial competencies represents a distinct influence on entrepreneurial intentions.
- **Implementation Intention (Component Three):** This component focuses on entrepreneurial planning and preparation activities associated with business start-up intentions (.783 to .837). The high factor loadings emphasize the importance of definite implementation plans relating to the type of business, execution strategy, and business location. However, the slightly lower loading for the "when" aspect of planning ("I have already planned precisely when to take the first step towards starting a business" (.783) indicates potential nuances in the conviction of the timing of entrepreneurial action. Having a lower loading on one item does not necessarily weaken the entire component, as higher scores on other items can compensate.
- **Subjective Norms (Component Four):** This component measures perceived social approval from colleagues, family members, and friends (.727 to .840). The strongest loading is from friends' approval (.840), highlighting the significant influence of the social environment on entrepreneurial decisions. These findings may also reflect elements of social desirability, peer influence, and cultural perceptions of entrepreneurship as a pathway toward economic security and a safety net from poverty. The loading of personal attitude variables onto the entrepreneurial intention component suggests an area for further investigation in future studies.

The findings provide important theoretical implications for the integrated framework adopted in this study. First, the strong loadings observed for subjective norms and perceived behavioral control provide empirical support for TPB, confirming that entrepreneurial intentions among university students are shaped not only by personal attitudes but also by social approval structures and perceived entrepreneurial capability. The stronger influence of friends and colleagues compared to family support further suggests that peer-based entrepreneurial ecosystems may play a more influential role than traditional family structures within the study context.

Second, the strong communalities associated with implementation intention variables reinforce the relevance of Implementation Intention Theory (IIT) in explaining the entrepreneurial intention-action gap. The findings suggest that entrepreneurial action is more likely when students develop specific implementation plans regarding the type of business, timing, location, and mode of execution. This supports prior studies arguing that implementation intentions serve as a connection between entrepreneurial desire and entrepreneurial behavior. Third, the findings extend the contextual relevance of the Resource-Based View (RBV) within entrepreneurship intention studies in developing economies. The evidence relating to resource constraints, limited access to entrepreneurial support systems and

contextual uncertainties suggests that resource perceptions significantly influence students' ability to translate entrepreneurial intentions into concrete entrepreneurial action. In this regard, the findings support the argument that entrepreneurial behavior in resource-constrained environments cannot be fully understood through the psychological intention framework alone without considering contextual and resource-related limitations.

The stronger loadings for implementation intention and subjective norms suggest that implementation-oriented planning and perceived social support are particularly influential in shaping entrepreneurial behavior within the study context. The comparatively lower loadings associated with personal attitude may reflect the influence of contextual and environmental factors within the context. In some developing economy contexts, social expectations and normative pressures may exert stronger influence on entrepreneurial decisions than individual attitudes. This interpretation is further supported by the lower communalities observed for personal attitude variables. Although the factor analysis provides valuable insight into the underlying construct structure, future studies may benefit from employing additional statistical approaches to further examine these relationships.

Table 4. Communalities

	Initial	Extraction
Subjective norm: If you decided to create a firm, would people in your close environment approve of that decision? Family	1.000	.581
Subjective norm : If you decided to create a firm, would people in your close environment approve of that decision? Friends	1.000	.751
Subjective norm: If you decided to create a firm, would people in your close environment approve of that decision? Colleagues	1.000	.663
Perceived behavior control: To start a firm and keep it working would be easy for me	1.000	.433
Perceived behavior control: I am prepared to start a viable firm	1.000	.512
Perceived behavior control: I can control the creation process of a new firm	1.000	.539
Perceived behavior control: I know the necessary practical details to start a firm	1.000	.606
Perceived behavior control: I know how to develop an entrepreneurial project :	1.000	.544
Perceived behavior control: If I tried to start a firm, I would have a high probability of succeeding	1.000	.456
Entrepreneurial Intention: I am ready to do anything to be an entrepreneur	1.000	.464
Entrepreneurial Intention: My professional goal is to become an entrepreneur :	1.000	.418
Entrepreneurial Intention: I will make every effort to start and run my own firm	1.000	.638
Entrepreneurial Intention: I am determined to create a firm in the future	1.000	.690
Entrepreneurial Intention: I have very seriously thought of starting a firm	1.000	.583
Entrepreneurial Intention: I have the firm Intention to start a firm someday	1.000	.593
Implementation Intention: I have already planned precisely when to take the first step toward starting a business	1.000	.703
Implementation Intention: I have already planned precisely where to start a business	1.000	.757
Implementation Intention: I have already planned what type of business/entrepreneurial activity I will do in the new business	1.000	.756
Implementation Intention: I have already planned precisely how to start my new business.	1.000	.750
Personal Attitude: Being an entrepreneur would give me great satisfaction	1.000	.352
Personal Attitude: I would rather be an entrepreneur instead of working as an employee	1.000	.307

Extraction Method: Principal Component Analysis.

The communalities table derived from Principal Component Analysis (PCA) illustrates the proportion of variance in each variable explained by the retained components. The analysis examined variables relating to subjective norms, perceived behavioral control, entrepreneurial

intention, implementation intention, and personal attitude. Generally, communalities below .20 are often considered weak and may be excluded in factor analysis studies (Child, 2006, Schin et al., 2023). However, the lowest communalities in personal attitude were retained due to their latent relationship with other variables. Communality values closer to 1 indicate stronger explanatory contribution to the overall factor structure (Kline, 2014), and higher communalities signify stronger relationships between the variable and the factor structure, contributing more to the latent constructs (Hair et al., 2019). The communalities ranged from .307 to .757, indicating varying levels of association between the observed variables and latent constructs. Implementation intention and subjective norm variables demonstrated the strongest relationships within the factor structure, suggesting their importance as predictors of entrepreneurial behavior. In contrast, personal attitude variables demonstrated comparatively weaker relationships within the factor structure. These findings are supported by Ajzen (1991) Theory of Planned Behavior, which posits that intention is a function of attitude, perceived control, and social norms. However, this study extends prior research by demonstrating that strong entrepreneurial intentions do not necessarily translate into implementation intentions within resource-constrained environments. These findings suggest that contextual barriers, social pressures, and resource limitations may weaken the transition from entrepreneurial intention to entrepreneurial action despite positive entrepreneurial attitudes.

- **Implementation Intention:** This construct had the highest communalities (.703 to .757), reflecting a substantial amount of what this variable measures. Items such as planning where (.757), what type (.756), and how (.750) to start a business showed strong loadings, indicating that individuals with detailed plans are closely aligned with the principal components explaining entrepreneurial behavior. These results support prior findings that implementation intentions and detailed planning of future actions are critical predictors of goal-directed behaviors, including entrepreneurship (Gollwitzer, 1999).
- **Subjective Norm:** Items measuring perceived social approval showed strong communalities, particularly approval from friends (.751) and colleagues (.663). While slightly lower (.581), approval from family members still indicated a meaningful contribution.
- **Perceived Behavioral Control:** This construct demonstrated moderate communalities, ranging from .433 to .606. The highest value was for the item, "I know the necessary practical details to start a firm" (.606), reflecting the importance of procedural knowledge. Other items, such as belief in one's ability to succeed (.456) or manage the process (.539), also contributed moderately.
- **Entrepreneurial Intention:** The items displayed communalities between .418 and .690. The highest loading was on the item "I am determined to create a firm in the future" (.690), indicating that determined personal resolve is a significant predictor.
- **Personal Attitude:** Overall personal attitude had the weakest communalities, with values of .307 and .352. This implies that while attitude is essential in the entrepreneurial process, it may represent a more independent or abstract element, not as directly related to behavioral intentions in this context.

6. LIMITATIONS

The study is subject to several limitations relating to contextual dimensions, methodology, respondent demographics, and the latent influence of social desirability bias. Accordingly, caution should be applied when implementing the findings in other socio-cultural and institutional contexts. Data collection was also constrained by limited funding and varying levels of respondent participation. Future studies may consider cross-cultural and nationwide investigations to improve generalizability and comparative understanding. Although the integrated conceptual framework draws on TPB, RBV, and Implementation Intention Theory, the empirical analysis was exploratory in nature and therefore does not establish causal relationships among constructs. Future studies may employ Structural Equation Modeling (SEM), regression analysis, confirmatory factor analysis, or longitudinal methods to further study the directional relationships and predictive interactions proposed within the framework.

7. CONCLUSION

The findings provide important practical insights for policymakers and stakeholders within entrepreneurship ecosystems in developing countries regarding the gap between entrepreneurial intentions and entrepreneurial implementation intentions among university students. Notably, the study's unexpected findings indicate that university students reported receiving more support from their friends and colleagues regarding their entrepreneurial pursuits than from their successful family members. This highlights the need for a more holistic approach toward entrepreneurship development among young people. Understanding the latent factors influencing entrepreneurial action among young people remains critical for entrepreneurship development, employment generation, and startup ecosystem growth within developing countries. Administrators and decision-makers must engage youths and university students when framing educational entrepreneurship curricula and encourage peer mentoring, alumni mentoring, and collaborative startup entrepreneurial projects. Additionally, efforts at reducing complexities and promoting clarity in the entrepreneurial environments in different contexts in developing countries can improve their perceived behavioral control and ease of doing business. This can be achieved through customized government initiative communications, increased awareness, field trips to business-related agencies, capacity-building workshops, simulations, practical case studies, and enlightenment on navigating a changing and volatile business environment. The relatively weaker influence of personal attitude variables also aligns with previous GEM findings, highlighting fear and cultural perceptions as limiting factors in entrepreneurial behavior. Strengthening entrepreneurial attitudes may require mentorship, storytelling, and positive reinforcement from entrepreneurs operating within similar socio-economic contexts. The responsibility for developing a sustainable entrepreneurial ecosystem extends beyond policymakers and includes families, educational institutions, and entrepreneurial networks. This study contributes to the entrepreneurship literature by integrating the Theory of Planned Behavior, Resource-Based View, and Implementation Intention Theory to examine entrepreneurial intentions and implementation intentions within Eastern Africa. Family entrepreneurial orientation significantly impacts students' entrepreneurship interests, as reported by the respondents, and similar studies that confirm family member entrepreneurship is a significant determinant of implementation intention behaviors (Onjewu et al., 2022). The relatively lower levels of

perceived behavioral control and personal attitude observed in the study further reinforce their importance during the early stages of entrepreneurial goal formation (Liñán et al., 2024). The mixed findings reported in this study provide important directions for future entrepreneurship research.

Abbreviations

IIT: Implementation Intention Theory

RBV: Resource-Based Theory

TPB: Theory of Planned Behavior

EI: Entrepreneurship Intention

EII: Entrepreneurship Implementation Intention

GEM: Global Entrepreneurship Monitor

MSMEs: Micro, Small, and Medium Enterprises

UEI: Uganda Entrepreneurship Index Report

VUCA: Volatile, Uncertain, Complexities and Ambiguities

PCA: Principal Component Analysis

SPSS: Statistical Package for the Social Sciences.

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