Start-ups in the Era of Digital Revolution: Factors that Shape the Intention to Launch a New One

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Abstract - Although we are in the heart of the digital revolution era, the original understanding of "startup" as an enterprise in the early stage still dominated the literature. The vague understanding of the startup concept led to a considerable misunderstanding, which may be misleading in exploring the launching phenomena. Despite this, fewer studies have addressed this issue and accurately understood it from conceptual or empirical perspectives. This paper aims to illustrate the definition of a start-up. After that, the authors utilised secondary data from the existing academic literature to develop a conceptual framework to understand individual and environmental factors' roles in the intention to launch a new start-up and suggest propositions for a future empirical test. The findings identified individual factors (entrepreneurial ideas, skills) that have remained unclear in the literature. Entrepreneurial ideas and skills can be fundamental in pushing individuals to be entrepreneurs. Moreover, university business incubators might introduce as a moderator; the arguments about their effect on personal and intellectual abilities remain unexplored very well. More inclusive conceptual perspectives are required to provide evidence crucial for developing and filling the existing gap. Based on the proposed framework, the authors encourage scholars to test its propositions empirically.

Keywords - Start-ups, launch, intentions, ideas, entrepreneurial skills, university business incubators.

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I. Background

The term "start-up" is used broadly. However, there is a lack of clarity regarding its concept and definition, particularly regarding what criteria characterise new ventures as start-ups. Skala (2019) raised this issue, and exploring the topic has revealed significant discrepancies in how the term "start-up" is defined in the literature. Practitioners have defined the term from various perspectives, depending on their ecosystem and context (e.g., Steve Blank and Eric Ries). While often unscientific, these opinions inspire academic researchers to study start-ups and are usually the first to identify critical issues, processes, and problems related to start-ups. This highlights the need to explore the academic meaning of "start-up" and establish a clear definition.

Historically, the term "start-up" was first used in the mid-nineteenth century in 1845 (Merriam-webster.com, 2022). However, its widespread use began right after WWII with the emergence of the first capital-risk enterprises (Gaelle, 2022). Initially, the word "start-up" referred to any business in its early stage of development (Breschi Lassébie & Menon, 2018). The term comprises two parts: "start", indicating the launch or creation, and "up",

denoting the rise and development. According to the Oxford English Dictionary, a start-up is generally understood as "the action or the process of setting something in motion". Over time, however, the meaning of this concept gradually became more specific, focusing on ambitious, dynamic, and technology-driven endeavours. This shift began to take place in the 1970s, as documented by Skala (2019). The Oxford English Dictionary records the earliest usage of the term "start-up" with its new connotation in 1976, in an article published by Forbes, where it mentioned "investing in start-ups in the electronic data processing field." Just a year later, a Businessweek article dated November 5, 1977, discussed "incubators for start-ups operating in rapidly evolving industries associated with high technology".

Steve Blank from Stanford University presented a widely cited definition of a start-up. He stated, "A start-up is a temporary organisation formed to search for repeatable and scalable business models" (Blank, 2003, 2013). He established three criteria that can identify a start-up: an ambitious goal to become a large enterprise, a function of searching for the best version of the business model, and a financing structure that decreases the founders' share in the enterprise's capital in favour of investors who provide liquidity.

Interestingly, Blank's definition does not specify the industry sector, enterprise age, or innovative product. In fact, the description does not include the terms "new," "innovative," or "technology." The crucial element differentiating a start-up from other projects is the "search," which results from uncertainty and doubt about the demand and the proposed solution's shape. "Temporary organisation" means any entity formed to achieve a common goal, even within a large enterprise (Leten and Van Dyck, 2012). However, the innovative and technological elements appear implicitly in the definition because achieving the scalability of the business model can fundamentally rely on the automation of essential tasks, which particularly require innovative algorithms and software (e.g., digital platforms), especially in the technological sectors.

Eric Ries from Harvard business school comes with another widespread definition and is often treated as a supplement to Blank's concept. Ries stated that: a start-up is "a human institution, founded to create new product or service in the conditions of extreme uncertainty." (Ries, 2011). Hence, Ries focuses on the "new" product/service and the extreme environmental risks "uncertain" in which such a business entity operates. Consequently, searching for a suitable business model for a new product/service and achieving scalability in the uncertainty are the key features of the combined concepts of Blank and Ries, which can be considered as the basis in this field.

It is worth reviewing some definitions of "start-up" and shedding light on them, specifically in emerging economies that show more interest in enabling entrepreneurship. From this perspective, in Malaysia, for instance, a country that seeks to be in the top 20 start-up ecosystems in the world (theStar, 2022), a start-up is described as "a business that is less than six months in operation" (SME Corporation Malaysia, n.d.). The start-up is considered a new business entity categorised on a time basis, which is consistent with Blank's idea of "temporary". In the MENA region, Algeria has taken significant steps in this regard. Even though the Algerian legislature set regulatory decrees for start-ups, the definition of a start-up is not clearly mentioned. To launch a start-up, the founder must already create an enterprise and seek to fulfil six criteria, including age (less than eight years), innovation (innovative business model), scalability (growth potential), social capital (it must be owned at least 50% by approved investment funds), and the size of an SME enterprise (MKES, n.d.). These criteria can indicate or shed light on the meaning of a start-up; it must be innovative and have significant growth potential. However, it is not a temporary entity and relies on a precise and innovative business model.

Notably, the traditional understanding of a start-up as an enterprise in the initial stages of business still dominates the leading literature. This was confirmed by Skala's (2019) work, which analysed a considerable number of top-cited articles in the business and management field that included the term "start-ups". Even though the articles share the approach of innovation and new technological undertakings, ambiguity in the understanding and conceptualisation of the term may result in considerable misunderstanding.

From here, while the definition of a start-up may have evolved over time. This shows a need to be explicit about precisely what the word "start-up" means. A clear and consistent definition of start-ups in the academic field is crucial for research and analysis. It enables researchers to compare findings across studies, draw accurate conclusions, and provide insights into policymakers and practitioners on supporting and promoting entrepreneurship and innovation in different contexts. Defining start-ups in the academic field requires careful consideration and a balance between specificity and broadness. The definition should be precise enough to capture the critical characteristics of start-ups and broad enough to apply across different contexts and populations. The potential limitations in the academic entrepreneurship field may accuse the difficulty in comparing findings across studies (Skala, 2019), generalizability, and challenges in data collection.

Skala (2019) comes with a spiral definition of start-up; she argued that the criteria that identify a company as a start-up are set apart based on the stage of the company's development: the initial, expansion, and maturity phases. This embodies a multitude of concepts. In the initial phase, innovative and unverified business models distinguish start-ups differently from other entities. Put in other words, the entities that describe the demand for their service or product as uncertain, unknown, or even non-existent. Thus, the start-up is about launching a business, where one of the components of the triad customer- problem-solution must at least be new.

Moreover, the main feature of this phase the limited and insufficient financial resources. In the expansion phase, the start-up verified the business model and moved fast and dramatically toward expanding the revenues

and the company value. Lastly, the entity reaches "hyper-scalability" using the appropriate technology in the maturity phase. In other words, comes a wide customer ratio and global market niches (Skala, 2019). Furthermore, Skala (2019) debated that start-ups can "fall out" or "fall into" the proposed spiral definition (based on the three phases) in cases such as imitating the existing solutions, not finding revenue, transforming into a corporation or foundation, the acquisition, and even dismantling the start-up after failing of finding a viable business model after a year of operating.

What we can criticise about Skala's definition is that the meaning of the start-up company can vary according to the growth stage; the criteria that define it will be different. Hence, the definition will continue to evolve based on the phase and sample of the phenomenon that seeks to be studied. In this paper, therefore, while the focus is leaning more toward a better understanding of the launching of new start-up phenomena, the start-up definition in the initial phase seems to be more comprehensive and an attempt to understand the behavioural intention.

Based on the previous definitions, the start-up is neither a micro nor SME enterprise nor copies an existing business model or market problem solution. Throughout this essay and future research that will investigate the behavioural intention of launching new start-ups, authors suggest that the term "start-up" is used to refer to: "A new entity that leans on innovative and non-existent solutions can turn into a scalable business model and then a dynamic enterprise in an uncertain environment".

Year	Authors	Definition
1845	Merriam-webster dictionary	"The act or an instance of setting in operation or motion."
2003	Blank	"A start-up is a temporary organisation formed to search for repeatable and scalable business models."
2011	Eric Reis	"A human institution, founded to create new product or service in the conditions of extreme uncertainty."
n.d	SME Corporation Malaysia	"A business that is less than six months in operation."
2010,2011,2013	Townsend et al., Liñán et al., Coad et al.	New company/project.
2023	Authors	A new entity that leans on innovative and non-existent solutions can become a scalable business model and a dynamic enterprise in an uncertain environment.

Table1: Summarise the Start-up definitions

II. Introduction

Entrepreneurship manifests in the growth and dynamics of economies by creating jobs (Mohd Noor, Yaacob, & Omar, 2021), spurring innovation, and injecting competition (Didar, 2016), as well as enhancing nations' wellbeing (Saoula et al., 2023). Technological innovation is a critical factor that a start-up leans on (Adler, Florida, King, & Mellander, 2019), and from it, it provides innovative solutions for complicated and challenging situations (Thomas & Georgee, 2019). Further, start-ups can survive through their resilience and ability to deal with instabilities situations (Sreenivasan, Suresh, & Panduro, 2022). The Covid-19 pandemic was recently followed by a lockdown on large parts of society and economic life, leading to an atrophy in social interaction and economic growth. Despite that, the lockdowns provided substantial new opportunities for entrepreneurship and innovative start-ups; based on the urgent need for radical innovations (i.e., in health, remote communication, logistics) and the change in societies' habits and needs (OECD.org, 2020) and consumers behaviour (Dwyer, 2021).

However, it still to rise discussions about the shortage rate of launching new start-ups in emerging economies. In the shadow of the current significant technological revolution and domination, the gap between yesterday's industry and today's industry and the industry that empowers tomorrow may be deeper and more substantial than its predecessors. That is why developing countries must realise their lag in innovative technology and its relations with entrepreneurship and take it as an urgent priority (Haddad, 2021). Based on this, launching more and more new start-ups and understanding the phenomenon behind it is become crucial.

The latest literature reveals unremitting efforts to identify what shapes the intention of individuals to be entrepreneurs and the factors that lead to the launching of new businesses in myriad contexts. However, as mentioned, the recent developments in the present times have opened up numerous opportunities for potential entrepreneurs to generate and commercialise new ideas (Ratten & Usmanij, 2020; Schwab, 2017). Additionally, the swiftly evolving requirements and expectations of customers in this technological era exert significant strain

on them to generate and execute a multitude of innovative ideas (Sobakinova, Zhou, & Durrani, 2020). Consequently, generating novel entrepreneurial ideas becomes indispensable as they enable entrepreneurs to launch new start-ups by introducing new products, markets, or customer bases (Ahmad et al., 2022). Recognising the significance of comprehending entrepreneurs and their cognitive processes has gained substantial acknowledgement (Di Gregorio, Musteen, & Thomas, 2022).

Moreover, the level of entrepreneurial intention among would-be entrepreneurs can significantly impact their transition from mere ideas to actual entrepreneurial actions. Consequently, the absence of solid entrepreneurial intention or lower levels can be attributed to various factors, such as the lack of viable entrepreneurial ideas (Molaei et al., 2014). The greater abundance of entrepreneurial ideas an individual possesses, the stronger their interest becomes in selecting and pursuing one of those ideas. The way an individual thinks influences their entrepreneurial intention as a channel (Molaei et al., 2014). Notably, however, the literature review shows a scarcity of studies examining the influence of entrepreneurial ideas on the intention to launch new start-ups. Therefore, conducting further studies is indispensable. It contributes to providing an addition to the current literature in understanding the extent to which ideas generated by would-be entrepreneurs are translated into actual entrepreneurial intentions and actions.

From another aspect, to boost the quantity and quality of entrepreneurial activities in individuals, understanding the barriers individuals face while establishing new start-ups is essential (OECD/EU, 2017). For the online business, for instance, young entrepreneurs just starting often face a shortage of entrepreneurial abilities when conducting business, using information technology, and managing themselves effectively. Additionally, they encounter various difficulties in the digital platform market, such as securing funding for their start-up ventures, adapting to the market's digital transformation, grappling with issues related to online transactions, navigating the complexities of business permit applications, and addressing copyright concerns pertaining to content creation (Cueto et al., 2022). In the Algerian context, for instance, the failure to launch a start-up is likely due to individuals lacking excellent skills and knowledge (Walid, 2019). The researchers have identified some skills that lack of them can be an impediment (Baaziz, 2019; Bouazza et al., 2015). In the personal aspect, having entrepreneurial skills instils an intrinsic drive and aspiration to excel (Salam et al., 2017; Scherer et al., 1991), and it could increase the individuals' confidence levels and makes them feel more able to identify a business opportunity (Yousaf et al., 2021), and vice versa. In this vein, there is a solid reason to believe that entrepreneurial intention and behaviour (the behaviour of launching new start-ups) require special skills. These skills can generally be learned and improved through education (Galvão, Marques, & Ferreira, 2020) and participation in training programs.

The relationship between entrepreneurial skills and the intention to be an entrepreneur is well-established in the literature (e.g. Liñán, 2008; Farooq, 2018; Shahzad et al., 2021). However, there is still a need for more investigation to understand ES's role in enhancing workability and providing knowledge of intentions (Shahzad et al., 2021). That can provide more evidence about ES, especially with inconsistent previous research findings. Several studies have investigated the moderating role of the university environment as moderator. The moderator variable can modify the form or strength of the relation between two variables (MacKinnon, 2011) and is introduced when the relationship is weak or inconsistent between two constructs (Baron and Kenny (1986). From a broad point of view, in the university context, entrepreneurial innovation university ecosystems are integrated by combined elements such as educational programs, infrastructures (e.g., incubators), university regulations, university culture, as well as agents, institutions (Guerrero and Urbano, 2019; Nicholls-Nixon et al., 2020; van Rijnsoever, 2020), and social structures as social worthiness (Fadzil, Fuza, Kamarudin, & Fahmi, 2022),

Previous studies provide insights into the influence of university business incubators on students' entrepreneurial intentions (Zreen et al., 2019; Guerrero & Urbano, 2017). However, few studies have explored the influence of university business incubators as moderators. The UBIs are now recognised as essential elements of the entrepreneurial ecosystem (Autio et al., 2014; Lyons, 2018), and this ecosystem supports university students in identifying, developing, and commercialising innovative and entrepreneurial initiatives (Grimaldi et al., 2011; Guerrero & Urbano, 2017, 2019). Furthermore, it creates an environment where everyone can help others put their new ideas, special skills, and abilities into new businesses (Hassan, 2020). While less attention has been given to the moderation effect of UBIs, this study aims to fill the existing gap.

This study aims to contribute to the knowledge and practice related to the intentions of launching new startups. Based on the arguments, this study highlights personal factors (entrepreneurial ideas, entrepreneurial skills) and environmental factors (university business incubators) that are assumed to affect the first process of launching new start-ups (intentions). Subsequently, this paper proposes a conceptual framework with propositions for future empirical testing.

The following paragraphs will discuss the underpinning theories and theoretical perspectives of entrepreneurial ideas, entrepreneurial skills, university business incubators, and intentions of launching new innovative start-ups.

III. Theories and Research Propositions

This study proposes a conceptual model that explains how entrepreneurial skills are related to intentions to launch a new innovative enterprise and how university business incubators might influence this relationship. Thompson (2009, p. 676) defines entrepreneurial intentions as "self-acknowledged convictions by individuals that they intend to set up new business ventures and consciously plan to do so at some point in the future". According to Bullough, Renko, and Myatt (2014), intentions are a primary step in the entrepreneurial plan whenever an individual intends to start a new business. The theory of planned behaviour (TPB) advances that planned behaviours, such as establishing a new enterprise or any business, are intentional and best predicted by the intentions toward the behaviours (Ajzen, 1991). Hence, the entrepreneurial activity of launching a start-up will be considered an intentionally planned behaviour, and intentions will be regarded as a cognitive state. The TPB presents a solid base of investigation (Lortie & Castogiovanni, 2015); due to that, it adds a new concept or value, perceived control, understood as a precursor to the behaviour. Basically, TPB is an extension of the theory of reasoned actions (TRA) (Madden, Ellen, & Ajzen, 1992) that has been utilised to comprehend the role of attitude and subjective norms toward intentions and behaviours. Attitude is defined as an individual's perception (positive or negative) of a mission; how an individual assumes the challenges following that mission. At the same time, subjective norms assume others' perceptions of the behaviour (Madden et al., 1992). These are the required entrepreneurial conditions and characteristics: being able to perceive oneself as a start-up's founder and coming from a society traditionally associated with entrepreneurial success.

Additionally, it implies having the necessary resources and facilities (Shapero, 1975; Shapero and Sokol, 1982). Thus, most scholars have investigated entrepreneurial skills through TPB's model (Ajzen, 1991, 2005; Ajzan & Madden, 1986). Following this line, these perspectives are applied in the research model of this study; entrepreneurial skills are expected to affect entrepreneurial intention positively. Extant studies have supported this association (Farooq, 2018; Gieure, del Mar Benavides-Espinosa, & Roig-Dobón, 2019; Vega-Gómez et al., 2020), in the same approach, entrepreneurial ideas.

However, although the TPB theory displays high explanation power, the influence of exogenous variables on intentions has not been accounted for. The environmental and situational factors typically indirectly affect entrepreneurship by influencing essential perceptions, attitudes, and general motivation to act (Krueger et al., 2000). From here, In this study, the role of the business incubator in the proposed relationships is explained using the social cognitive theory (SCT) as an exogenous variable. According to the SCT, individuals' actions, thoughts, and behaviours are shaped by a complex interplay of cognitive, behavioural, personal, and environmental factors. Bandura (1986) suggests that individuals set goals as motivators to guide their behaviour. Consequently, the social cognitive theory (SCT) can be employed to understand behaviours or intentions to act, which, in accordance with "triadic reciprocality", are influenced by the interplay between cognitive factors and environmental events. In the context of individual components, this study examines entrepreneurial ideas and skills as precursors to intentions.

Regarding the environment, the university business incubator concept is illustrated by what individuals perceive during participation in a start-up incubator. This aligns with Hassan (2020); business incubators create an atmosphere where individuals are assisted in putting their new ideas and unique skills into launching new start-ups. Expert mentoring, peer support, and personal reflection are also essential to this phenomenon. Consequently, the authors propose that business incubator plays a crucial role in strengthening the relationships between individual capabilities and intentions to establish new innovative start-ups. Hence, this study will develop propositions based on these underpinning theories.

Entrepreneurial Ideas and Intentions

In the field of entrepreneurship, Hill and Birkinshaw (2010) define an entrepreneurial idea as "a complete set of ideas that an individual possesses (i.e. from the individual's "mental sparkle", which is accessible every now and then to the idea which has been commercialised". The mental realm of individuals, specifically at the idea level, presents an opportunity for further analysis. It is important to emphasise that these ideas remain merely conceptual until they are actively pursued development and efforts are made to mitigate associated uncertainties. Over time, an idea may potentially evolve into an entrepreneurial opportunity that can be capitalised upon (Molaei et al., 2014). However, if an idea is not actively cultivated, it will not progress and will never transform into an opportunity. Consequently, an idea alone does not constitute an entrepreneurial opportunity without creating an idea, and no opportunity can arise (Hayton and Cholakova, 2012).

The foundation for a new start-up is built upon the idea itself. The emergence of ideas for new products or service development is not spontaneous; instead, it stems from utilising existing knowledge and experiences and creating novel concepts before individuals conceive these ideas (Shane, 2000; Ahmed et al., 2022). Hill and Birkinshaw (2010) in their study they mentioned that entrepreneurial ideas, with their dimensions of content, volume, novelty, and value, could influence entrepreneurial procedures. On this basis, Molaei et al. (2014) have conducted an empirical study on the direct and indirect relationship between ideas dimensions and entrepreneurial intention among Iranian university students. The results revealed that the four dimensions of entrepreneurial ideas positively and indirectly influence entrepreneurial intention. Later, Ahmad et al. (2022) conducted mixed research, and they came up with four elements that indicate the entrepreneurial ideas generation: evaluating and

improving the existing ideas, performing market research, obtaining a variety of information, and combining the current knowledge with the received data. It is recommended that researchers empirically test the effects of entrepreneurial ideas as one combined construct on entrepreneurial intention and highlight that it can ameliorate the intention level. Hence, conducting an empirical examination of this connection will reveal fresh perspectives and underscore the significance of entrepreneurial ideas. Consequently, the subsequent proposition is put forward: *Proposition 1*: entrepreneurial ideas have a positive relationship with intentions to launch new start-ups.

Entrepreneurial Skills and Intentions

Skills refer to the ability to perform a task (McLarty & Dousios, 2006). At the same time, Wickham (2006) argued that "entrepreneurial performance results from a combination of industry knowledge, general management skills and personal motivation" (p.100). Notably, skills in an entrepreneurial context generally are mandatory. Entrepreneurial skills can be described as the capabilities of performing duties during all phases. Therefore, Mamabolo et al. (2017) proposed that entrepreneurial skills are defined as "the proficiency in performing tasks in the entrepreneurial phases as a result of human capital investments (formal and education, entrepreneurial education, work, industry, and entrepreneurship experiences) can be improved by training, practice and development". Previous studies have resulted in a sizable list of skills necessary for the entrepreneurial process (e.g. Marnoto & Carvalho, 2018; Badawi et al., 2019; Jardim, 2021). There has been growing unanimity among various pieces of research that entrepreneurial skills are a multidimensional concept, including personal, managerial, and marketing, to name by few; these skills are crucial and change according to diverse contexts and situations.

Nonetheless, the studies conducted in the entrepreneurship area overlap the necessary, and not surprisingly, this overlap made skill categorisation tricky. To date, there is still no consensus on the elements of entrepreneurial skills. However, it is evident that various types of skills play a crucial role in the process of creating a new venture (Unger et al., 2011). Baaziz (2019) further argued that in the ecosystem of Algeria, an emerging Arab economy, individuals have four main barriers that restrict them from launching their start-ups successfully: the lack of skills of personal entrepreneurial, managerial, marketing, and technological skills (Baaziz, 2019). As such, new entrepreneurs need to develop the primary skills and techniques to establish an enterprise. Gieure et al. (2019) found that the significance of entrepreneurial skills in elucidating entrepreneurial intentions is substantial, as it is presumed that knowledge and training contribute to developing high-level proficiency in individuals. Similarly, several studies (Farooq, 2018; Shahzad et al., 2021) have found that entrepreneurial skills were positively related to intentions.

In sum, entrepreneurial skills are necessary for the entrepreneurial process, specifically for building entrepreneurial intentions. Drawing from these arguments, this paper suggests the following proposition: *Proposition 2:* Entrepreneurial skills are significantly related to the intentions to launch new start-ups.

The Moderating Role of University Business Incubators

University Business incubators (IBs) have begun to appear in the early 50s, in line with the social, political, and economic changes. The National Business Incubator Association (NBIA) defines business incubation as "a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with a set of targeted resources and services" (NBIA, 2010). However, university business incubators (UBIs) as BIs have some essential differences due to where they were formed and operated. They work closely with university foundations, focusing on the early start-ups' launching stages and providing in-house amenities (e.g., house of entrepreneurship) (Pellegrini & Johnson-Sheehan, 2021). Basically, the university business incubators, which are integrated into the educational system, play a vital role in equipping young individuals with the necessary skills and knowledge to foster job creation (Hassan, 2020).

Several studies have shown that the relationship between the university business incubator and intention is significant in various contexts, such as Li, ur Rehman, and Asim (2019) and Korejo et al. (2023). Further, another research shows indirect relationship effects between the two constructs. Ayad, Sobaih, and Elshaer (2022), for instance, conducted a study among Saudi Arabia students on the relationship between the UBIs' support and intention through the mediation role of personal attitude. The results revealed that personal attitude mediates the impact of UBIs support dimensions and intentions.

In this vein, the university environment plays indirect; it has been introduced as a moderator in several studies such as university support (Anjum et al., 2020; Anjum et al., 2021), university environmental values (Qazi et al., 2020), culture (Yousaf et al., 2022), and so on. However, the UBIs moderating role as a pillar of the university ecosystem has been neglected in the literature, especially between entrepreneurial ideas, skills, and intentions.

Entrepreneurial ideas and intentions are crucial for the success of any entrepreneurial endeavour. Research, however, has shown that the relationship between entrepreneurial ideas and entrepreneurial intention as the main predictor of behaviour is complex and multifaceted (Molaei et al., 2014). While some studies suggest that innovative entrepreneurial ideas are a crucial predictor of entrepreneurial success (e.g., Shane & Venkataraman, 2000), others argue that recognising and acting on opportunities is more important than having novel ideas (e.g., Sarasvathy, 2001). Foss and Klein (2015) argue that entrepreneurial ideas must be evaluated for their feasibility, marketability, and scalability to increase the chances of success. Furthermore, the links between entrepreneurial

ideas and behaviour are moderated by the cultural and institutional context in which entrepreneurship occurs. Generating original and valuable ideas, whether in the immediate or distant future, refers to individual creativity (Amabile, 1996). Creativity can arise from the interplay between individuals and their surroundings (Hunter, Bedellm, & Mumford, 2007). Through ongoing interaction with the environment (e.g. university ecosystem), individuals accumulate a wealth of information, which they organise into cognitive structures or concepts pertinent to fostering creativity and emerging new ideas (Baron, 2007). When individuals engage in cognitive modelling, novel ideas are generated by expanding or combining these concepts. Effective processing of acquired information can generate novel ideas, which embody the essence of creativity and frequently give rise to new entrepreneurial endeavours (Ward, 2004; Biraglia & Kadile, 2008). While intention is the main predictor of behaviour based on theories such as planned behaviour, the relationship between ideas and intent to launch new start-ups may also moderate by environmental factors. Therefore, as an environmental factor, university business incubators can influence the relationship between entrepreneurial ideas and intentions.

It is worth drawing attention to that Baron and Kenny (1986) mentioned that the moderator variable could be introduced when the relationship between exogenous and endogenous variables is weak or inconsistent. Several studies have found a positive and significant relationship between ES and intentions (Farooq, 2018; Gieure et al., 2019; Shahzad et al., 2021). In contrast, Oosterbeek, Van Praag, and Ijsselstein (2010) found that the relationship between ES and intentions is insignificant. Therefore, the following propositions are suggested:

Proposition 3: University business incubators are significantly related to the intentions to launch new start-ups. *Proposition 4:* University business incubators moderate the relationship between entrepreneurial ideas and the intention to launch new start-ups.

Proposition 5: University business incubators moderate the relationship between entrepreneurial skills and the intention to launch new start-ups.

IV. Methodology

The paper contributes to existing knowledge by providing a detailed understanding of the entity under study (entrepreneurial skills, ideas, and university business incubators) and its relationships with the dependent construct (intention to launch new start-ups). Relevant literature and theories from multiple disciplines to build a formal analytical approach explaining key variables' relationships. The authors employ relative theories to develop a conceptual framework. The paper presented its arguments through figures that depict the constructs and their relationships or as formal propositions derived from the conceptual framework.

V. Research Framework

The below research framework is being considered to understanding of the entity under study.



VI. Conclusion

In general, this conceptual paper raised the issue of start-up definition; it draws attention to the fact that scholars must pay attention before conducting any study to define precisely what a start-up means in the research's scope. Doing so will make the analysis results accurate, especially while comparing results with previous research. More importantly, this study presented a conceptual framework proposing that entrepreneurial ideas and skills are related to the intention to launch new start-ups. Furthermore, this study suggested the contingent role of university business incubators through their provided training programs, networking, and monitoring of the relationship between entrepreneurial ideas, skills, and intentions. Consequently, this study has significant implications.

By exploring the relationship between the independent variables and the intention to launch new start-ups, this study provides a theoretical foundation to conclude the importance of ideas and skills at the start of the entrepreneurial process as it contributes to the design of new innovative products/services and intelligent technological solutions. Besides expanding the knowledge body concerning start-ups, the authors suggested that university business incubators might play a moderator role in this relationship through the training programs provided. This study calls researchers to explore whether training programs are adequate, cover, and develop all necessary aspects that might improve the individuals to recognise business opportunities, or at least have the intention to do so. Therefore, future studies should test the proposed model and evaluate the individual ideas, skills and training programs through incubator trainees in order to better understand the entrepreneurial process (intentions). Furthermore, empirical examination in multiple and different contexts, especially in emerging economies, might be more beneficial in providing evidence and recommendations for decision-makers in countries striving to catch up with technology and innovation amid the massive technological revolution we live in today.

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References

- Adler, P., Florida, R., King, K., & Mellander, C. J. C. (2019). The city and high-tech start-ups: The spatial organisation of Schumpeterian entrepreneurship. 87, 121-130. https://doi.org/10.1016/j.cities.2018.12.013
- Ahmad, N. A., Rasul, M. S., Othman, N., & Jalaludin, N. A. (2022). Generating Entrepreneurial Ideas for Business Development. Sustainability, 14(9), 4905. <u>https://doi.org/10.3390/su14094905</u>
- Ajzen, I. (1991). The theory of planned behavior. *Organisational behavior and human decision processes*, 50(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behaviour: Attitudes, intentions, and perceived behavioural control. *Journal of experimental social psychology*, 22(5), 453-474. https://doi.org/10.1016/0022-1031(86)90045-4
- Amabile, T. M. (1996). Creativity in context. Westview Press.
- Ayad, T., Sobaih, A. E. E., & Elshaer, I. A. (2022). University Incubator Support and Entrepreneurial Intention among Tourism Graduates: Mediating Role of Personal Attitude. *Sustainability*, 14(23), 16045. <u>https://doi.org/10.3390/su142316045</u>
- Baaziz, A. (2018). Towards a New Paradigm of "Competitiveness" in Emerging Countries: Case of the Algerian Entrepreneurial Ecosystems. *International Journal of Innovation*, 7(1), 67-86. <u>https://doi.org/10.5585/iji.v7i1.354</u>
- Badawi, S., Reyad, S., Khamis, R., Hamdan, A., & Alsartawi, A. M. (2019). Business Education and Entrepreneurial Skills: Evidence from Arab universities. *Journal of Education for Business*, 94(5), 314-323. <u>https://doi.org/10.1080/08832323.2018.1534799</u>
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Baron, R. A. (2007). Behavioral and cognitive factors in entrepreneurship: Entrepreneurs as the active element in new venture creation. *Strategic entrepreneurship journal*, 1(1-2), 167-182. <u>https://doi.org/10.1002/sej.12</u>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173. Retrieved from <u>https://www.sesp.org/files/The%20Moderator-Baron.pdf</u>
- Biraglia, A., & Kadile, V. (2017). The role of entrepreneurial passion and creativity in developing entrepreneurial intentions: Insights from American homebrewers. *Journal of small business management*, 55(1), 170-188. https://doi.org/10.1111/jsbm.12242
- Blank, S. (2003). The four steps to the epiphany: Successful strategies for products that win. Pescadero: K&S Ranch. Retrieved from <u>https://shorturl.at/nJKNV</u>
- Blank, S. (2013). Why the lean start-up changes everything. Harvard Business Review, 91(5), 63–72. Retrieved from <u>https://shorturl.at/ICFY4</u>
- Bouazza, Benzazoua. A.; Ardjouman. D. & Abada, O. (2015). Establishing the Factors Affecting the Growth of Small and Medium-sized Enterprises in Algeria. American International Journal of Social Science, 4 (2), 101-15. Retrieved from: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1084.1132&rep=rep1&type=pdf
- Breschi, S., J. Lassébie and C. Menon (2018), "A portrait of innovative start-ups across countries", *OECD Science, Technology and Industry Working Papers*, No. 2018/02, OECD Publishing, Paris, <u>https://doi.org/10.1787/f9ff02f4-en</u>.

- Bullough, A., Renko, M., & Myatt, T. (2014). Danger zone entrepreneurs: The importance of resilience and self– efficacy for entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 38(3), 473-499. <u>https://doi.org/10.1111/etap.12006</u>
- Coad, A., Frankish, J., Roberts, R. G., & Storey, D. J. (2013). Growth paths and survival chances: An application of Gambler's Ruin theory. *Journal of Business Venturing*, 28(5), 615–632. https://doi.org/10.1016/j.jbusvent.2012.06.002
- Cueto, L. J., Frisnedi, A. F. D., Collera, R. B., Batac, K. I. T., & Agaton, C. B. (2022). Digital innovations in MSMEs during economic disruptions: experiences and challenges of young entrepreneurs. Administrative Sciences, 12(1), 8. https://doi.org/10.3390/admsci12010008
- Di Gregorio, D., Musteen, M. C., & Thomas, D. (2022). International business opportunity recognition and development. International Journal of Entrepreneurial Behavior & Research, 28(3), 628-653. https://doi.org/10.1108/IJEBR-03-2021-0227
- Didar, A. F. (2016). Role of Start-ups in Economic Prosperity. Retrieved from <u>https://www.Startupgrind.Com/Blog/Role-Of-Startups-In-Economic-Prosperity/</u>.
- Dwyer, B. (2021). Top 10 nations with fastest small business growth and why it matters. World Economic Forum. Retrieved July 3 2022, from <u>https://www.weforum.org/agenda/2021/11/here-are-the-top-countries-enjoying-the-largest-growth-in-small-businesses-and-why-that-matters/</u>.
- Fadzil, N. A. F. M., Fuza, Z. I. M., Kamarudin, W. N. B. W., & Fahmi, N. M. Z. N. M. (2022). Environmental Factors and the Entrepreneurial Intentions of UiTM Hospitality Students. Journal of International Business, Economics and Entrepreneurship, 7(2), 45-45.
- Farooq, M.S. (2018). Modeling the significance of social support and entrepreneurial skills for determining entrepreneurial behavior of individuals: A structural equation modeling approach. World Journal of Entrepreneurship, Management and Sustainable Development, 14 (3), 242-266. <u>https://doi.org/10.1108/WJEMSD-12-2017-0096</u>
- Foss, L., & Gibson, D. V. (2015). The entrepreneurial university: Context and institutional change. In The Entrepreneurial University (pp. 1-17). Routledge. https://doi.org/10.4324/9781315737065-1
- Gaelle (2012, July 14) *Dis, c'est quoi une start-up?* [Say, what is a start-up?]. Retrieved from <u>https://wydden.com/dis-cest-quoi-une-start-up/</u>
- Galvão, A., Marques, C., & Ferreira, J. J. (2020). The role of entrepreneurship education and training programmes in advancing entrepreneurial skills and new ventures. *European Journal of Training and Development*, 44(6/7), 595-614. <u>https://doi.org/10.1108/EJTD-10-2019-0174</u>
- Gieure, C., del Mar Benavides-Espinosa, M., & Roig-Dobón, S. (2019). Entrepreneurial intentions in an international university environment. *International Journal of Entrepreneurial Behavior & Research*, 25 (08), 1605-1620. https://doi.org/10.1108/IJEBR-12-2018-0810
- Guerrero, M. & Urbano, D. (2017), The impact of Triple Helix agents on entrepreneurial innovations' performance: an inside look at enterprises located in an emerging economy. *Technological Forecasting and Social Change*, 119, 294-309. DOI: 10.1016/j.techfore.2016.06.015
- Guerrero, M., & Urbano, D. (2019). A research agenda for entrepreneurship and innovation: the role of entrepreneurial universities. A research agenda for entrepreneurship and innovation, 107. 10.4337/9781788116015.00012.
- Haddad, L. (2021). [Entrepreneruship in The Era of the Fourth Industrial Revolution: Opportunities and Challenges Amid Major Technological Changes]. Retrieved from: https://elaph.com/Web/Economics/2021/04/1326402.html.
- Hassan, N.A. (2020). University business incubators as a tool for accelerating entrepreneurship: the core perspective. *Review of Economics and Political Science*, (ahead-of-print). <u>https://doi.org/10.1108/REPS-10-2019-0142</u>
- Hill, S. A., & Birkinshaw, J. M. (2010). Idea sets: Conceptualising and measuring a new unit of analysis in entrepreneurship research. Organisational research methods, 13(1), 85-113. <u>https://doi.org/10.1177/109442810933754</u>
- Hunter, S. T., Bedell, K. E., & Mumford, M. D. (2007). Climate for creativity: A quantitative review. *Creativity* research journal, 19(1), 69-90. <u>https://doi.org/10.1080/10400410709336883</u>
- Jaakkola, E. (2020). Designing conceptual articles: four approaches. AMS review, 10(1-2), 18-26. https://doi.org/10.1007/s13162-020-00161-0
- Jardim, J. (2021). Entrepreneurial skills to be successful in the global and digital world: Proposal for a frame of reference for entrepreneurial education. *Education Sciences*, 11(7), 356. https://doi.org/10.3390/educsci11070356
- Korejo, E. N., Korejo, M. S., Bhutto, N. A., & Soomro, S. (2023). University business incubators and students'entrepreneurial intentions: impact and effectiveness. *Lex Humana (ISSN 2175-0947)*, 15(3), 182-204. Retrieved from <u>https://seer.ucp.br/seer/index.php/LexHumana/article/view/2572</u>
- Krueger Jr, N.F., Reilly, M.D., & Carsrud, A.L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432. <u>https://doi.org/10.1016/S0883-9026(98)00033-0</u>

- Li, C., ur Rehman, H., & Asim, S. (2019). Induction of business incubation centres in educational institutions: An effective approach to foster entrepreneurship. *Journal of Entrepreneurship Education*, 22(1), 1-12. Retrieved from <u>http://eserv.uum.edu.my/scholarly-journals/induction-business-incubation-centers-educational/docview/2238486352/se-2</u>.
- Linan, F. (2008). Skill and value perceptions: how do they affect entrepreneurial intentions?. International entrepreneurship and management journal, 4, 257-272. <u>https://doi.org/10.1007/s11365-008-0093-0</u>
- Liñán, F., Rodriguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, 7(2), 195–218. https://doi.org/10.1007/s11365-010-0154-z
- Lortie, J., & Castogiovanni, G. (2015). The theory of planned behavior in entrepreneurship research: what we know and future directions. *International entrepreneurship and management journal*, *11*, 935-957. <u>https://doi.org/10.1007/s11365-015-0358-3</u>
- Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and social psychology Bulletin*, 18(1), 3-9. <u>https://doi.org/10.1177/0146167292181001</u>
- Mamabolo, M. A., Kerrin, M., & Kele, T. (2017). Entrepreneurship management skills requirements in an emerging economy: A South African outlook. *The Southern African Journal of Entrepreneurship Small Business Management*, 9(1), 1-10. <u>https://doi.org/10.4102/sajesbm.v9i1.111</u>
- Marnoto, S., & Carvalho, J. M. S. (2018). Entrepreneurial Skills in the Context of Sports Entrepreneurship Education. Paper presented at the 4th International Conference on Entrepreneurship Education CEE'18, 241-256. Porto, Portugal. Retrieved from <u>http://hdl.handle.net/11328/4014</u>
- McLarty, R., & Dousios, D. (2006). Dynamics and patterns of skills within small and medium-sized enterprises. *Strategic Change*, 15(4), 175-186. <u>https://doi.org/10.1002/jsc.75</u>.
- Merriam-webster.com. (2022). Definition of START-UP. Retrieved from <u>https://www.merriam-webster.com/dictionary/start-up#word-history</u>
- MKES (n.d). Ministry of Knowledge Economy and Start-ups. Retrieved from https://startup.dz
- Mohd Noor, N. H., Yaacob, M. A., & Omar, N. (2021). Redefining the link between subjective norm and entrepreneurship intention: Mediating effect of locus of control. Journal of International Business, Economics and Entrepreneurship (JIBE), 6(1), 9-19. <u>https://doi.org/10.24191/jibe.v6i1.14203</u>.
- Molaei, R., Zali, M. R., Mobaraki, M. H., & Farsi, J. Y. (2014). The impact of entrepreneurial ideas and cognitive style on students entrepreneurial intention. *Journal of Entrepreneurship in Emerging Economies*. 6 (2), 140-162. <u>https://doi.org/10.1108/JEEE-09-2013-0021</u>
- NBIA (2010), National Business Incubation Association: "What is business incubation", retrieved from: Retrieved from www.nbia.org/resource_library/what_is/
- Nicholls-Nixon, C. L., Valliere, D., Gedeon, S. A., & Wise, S. (2021). Entrepreneurial ecosystems and the lifecycle of university business incubators: An integrative case study. International entrepreneurship and management journal, 17, 809-837.doi: 10.1007/s11365-019-00622-4.
- OECD.org. (2020, May 13). Start-ups in the time of COVID-19: Facing the challenges ... OECD. Start-ups in the time of COVID-19: Facing the challenges, seizing the opportunities. Retrieved from <u>https://www.oecd.org/coronavirus/policy-responses/start-ups-in-the-time-of-covid-19-facing-the-</u>challenges-seizing-the-opportunities-87219267/
- OECD/EU (2017), The Missing Entrepreneurs 2017: Policies for Inclusive Entrepreneurship, OECD Publishing, Paris. doi: https://doi.org/10.1787/9789264283602-en.
- Oosterbeek, H., Van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European economic review*, 54(3), 442-454. https://doi.org/10.1016/j.euroecorev.2009.08.002
- Pellegrini, M., & Johnson-Sheehan, R. (2021). The evolution of university business incubators: Transnational hubs for entrepreneurship. *Journal of Business and Technical Communication*, 35(2), 185-218. https://doi.org/10.1177/1050651920979983
- Ratten, V., & Usmanij, P. (2020). Entrepreneurial opportunities: economics and sustainability for future growth. In Entrepreneurial Opportunities. Emerald Publishing Limited. 1-6. <u>https://doi.org/10.1108/978-1-83909-285-520201001</u>
- Ries, E. (2011). The lean start-up: How today's entrepreneurs use continuous innovation to create radically successful businesses. New York: Crown Business. Retrieved from https://shorturl.at/ltvY4
- Saoula, O., Shamim, A., Ahmad, M. J., & Abid, M. F. (2023). Do entrepreneurial self-efficacy, entrepreneurial motivation, and family support enhance entrepreneurial intention? The mediating role of entrepreneurial education. Asia Pacific Journal of Innovation and Entrepreneurship, (ahead-of-print). https://doi.org/10.1108/APJIE-06-2022-0055
- Sarasvathy, S. (2001) Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *Academy of Management Review*, 26(2): 243–63. https://doi.org/10.5465/amr.2001.4378020

- Schwab, K. (2017). The Fourth Industrial Revolution, 1st ed.; Portfolio Penguin: London, UK. 28–55 Retrieved from https://jmss.vic.edu.au/wp-content/uploads/2021/06/The Fourth Industrial Revolution.pdf
- Sedita, S.R., Apa, R., Bassetti, T., & Grandinetti, R. (2019). Incubation matters: Measuring the effect of business incubators on the innovation performance of start-ups. *R&D Management*, 49(4), 439-454. <u>https://doi.org/10.1111/radm.12321</u>
- Shabbir, M. S., Shariff, M. N. M., Salman, R., & Shabbir, M. F. (2017). Exploring the link between entrepreneurial skills and entrepreneurial intentions: Proposing a hypothesised model for future research. *Paradigms: A Research Journal of Commerce, Economics, and Social Sciences*, 11(1), 72-77. Retrieved from http://paradigms.ucp.edu.pk/
- Shahzad, M.F., Khan, K.I., Saleem, S., & Rashid, T. (2021). What factors affect the entrepreneurial intention to start-ups? The role of entrepreneurial skills, propensity to take risks, and innovativeness in open business models. *Journal of Open Innovation: Technology, Market, and Com-plexity*, 7(3), 173. <u>https://doi.org/10.3390/joitmc7030173</u>
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. Academy of Management Review, 25(1), 217-226. doi: <u>https://doi.org/10.5465/amr.2000.2791611</u>.
- Shapero, A. (1975). The displaced, uncomfortable entrepreneur. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.
- Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.
- Skala, A. (2019). Digital Start-ups in Transition Economies, 1-40. Retrieved from https://link.springer.com/content/pdf/10.1007/978-3-030-01500-8.pdf
- SME
 Cooperation
 Malaysia
 (n.d).
 Start-ups.
 Retrieved
 from

 https://www.smecorp.gov.my/index.php/en/definition-of-startups

 from
 from
- Sobakinova, D., Zhou, Y., & Durrani, D. K. (2020). The role of human capital outcomes in generating business ideas. *VINE Journal of Information and Knowledge Management Systems*, 50(1), 163-183. https://doi.org/10.1108/VJIKMS-03-2019-0033
- theStar (2022). (2022, August 24). Malaysia aims for the world's top 20 start-up ecosystems ranking. The Star. Retrieved January 1, 2023, from <u>https://www.thestar.com.my/news/nation/2022/08/25/malaysia-aims-for-worlds-top-20-start-up-ecosystems-ranking</u>.
- Thomas, J., & Georgee, K. (2019). The Role of Incubation Centres in Kerala's Start-up Ecosystem. Paper presented at the 13th Biennial Conference on Entrepreneurship. Retrieved from http://library.ediindia.ac.in:8181/xmlui//handle/123456789/7917.
- Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669–694. <u>https://doi.org/10.1111/j.1540-6520.2009.0032</u>
- Townsend, D. M., Busenitz, L. W., & Arthurs, J. D. (2010). To start or not to start: Outcome and ability expectations in the decision to start a new venture. *Journal of Business Venturing*, 25(2), 192–202. https://doi.org/10.1016/j.jbusvent.2008.05.003
- Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of business venturing*, 26(3), 341-358. https://doi.org/10.1016/j.jbusvent.2009.09.004
- Van Rijnsoever, F. J. (2020). Meeting, mating, and intermediating: How incubators can overcome weak network problems in entrepreneurial ecosystems. Research policy, 49(1), 103884. doi: 10.1016/j.
- Vega-Gómez, F.I., Miranda González, F.J., Chamorro Mera, A., & Pérez-Mayo, J. (2020). Antecedents of entrepreneurial skills and their influence on the entrepreneurial intention of academics. *Sage Open*, 10(2). <u>https://doi.org/10.1177/2158244020927411</u>
- Walid, T. (2019). Bahthun Yuakidun Fi Multaqaa Bijamieat Alblidt02 / Almuasasat Alnnashiat Walmqawlatyt Tueani Min Daef Siasat Aldaem [Researchers affirm at the Blida University Forum 02 / Emerging and entrepreneurial institutions suffer from weak support policies]. Retrieved from <u>http://www.mitidjanews.com/02 باحثون بو</u>كدون في ملتقى بجامعة البليدة
- Ward, T. B. (2004). Cognition, creativity, and entrepreneurship. *Journal of business venturing*, 19(2), 173-188. <u>https://doi.org/10.1016/S0883-9026(03)00005-3</u>
- Wickham, P. A. (2006). Strategic entrepreneurship. Pearson Education.
- Yousaf, H. Q., Munawar, S., Ahmed, M., & Rehman, S. (2022). The effect of entrepreneurial education on entrepreneurial intention: The moderating role of culture. *The International Journal of Management Education*, 20(3), 100712. <u>https://doi.org/10.1016/j.ijme.2022.100712</u>
- Yousaf, U., Ali, S. A., Ahmed, M., Usman, B., & Sameer, I. (2021). From entrepreneurial education to entrepreneurial intention: a sequential mediation of self-efficacy and entrepreneurial attitude. International Journal of Innovation Science, 13(3), 364-380. <u>https://doi.org/10.1108/IJIS-09-2020-0133</u>
- Zreen, A., Farrukh, M., Nazar, N., & Khalid, R. (2019). The role of internship and business incubation programs in forming entrepreneurial intentions: an empirical analysis from Pakistan. *Central European Management Journal*, 27(2), 97-113. DOI: 10.7206/jmba.ce.2450-7814.255