



# WORKING PAPER

## INNOVATIVE NASCENT AND EARLY STAGE ENTREPRENEURSHIP IN THE SOUTHERN MEDITERRANEAN - EVIDENCE ON JORDAN AND MOROCCO

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### Abstract

Innovative entrepreneurship is typically classified as high growth entrepreneurship, as innovation is, in many cases, behind a venture's success and represents the key to expansion and job creation. As such, it is considered to be an engine for economic growth and development. This study builds on the result of in-depth interviews conducted over a sample of 72 innovative nascent and early stage entrepreneurs in Jordan and Morocco and, herewith, provides an overview of the main characteristics of innovative startups and young ventures in these two countries. This provides useful insights into entrepreneurial traits, the challenges and potential strengths of startups in the region. The specific focus of the study is to try to understand the skills profile of innovative nascent and young entrepreneurs in the region and to test compelling theories into the origins of skills. It is, in particular, focused on the investment and endowment hypotheses. The results point to the importance of balanced skills and provide support for the endowment hypothesis.

**Keywords:** nascent entrepreneurship, entrepreneurial emergence, startup, innovation, entrepreneurial behaviour, balanced skills.

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## Introduction

In the context of an increasingly globalised and knowledge-based economy, the crucial role of innovation in the economic welfare and prosperity of countries, via improving productivity and competitiveness, is widely recognised amongst economic scholars (Birch et al., 1997; Wong et al., 2005). Also, the vital contribution of entrepreneurs in the innovation process, as highly important agents bringing innovative ideas, products and services to the market (Acs & Armington, 2006; Schramm, 2006), is a widely acknowledged fact. Nevertheless, there is still the need for a deeper understanding of the process of new venture emergence, as well as the process by which innovative entrepreneurs detect opportunities, act upon them, and bring their startups into existence.

On one hand, nascent entrepreneurship cannot be treated as established entrepreneurship, but rather requires a specific lens of analysis (Davidsson, 2008a, 2008b). On the other hand, the influence of the context of entrepreneurial success should be acknowledged, too (Porfirio et al., 2016; Reynolds, 1999). Thus, this study believes in the need for a very tailored approach to startup research and aims at filling the substantial knowledge gap surrounding nascent entrepreneurship in the Southern Mediterranean. It can be reasonably assumed that the contexts for innovation and entrepreneurship are very different in the Southern Mediterranean from those of industrialised countries, where most of the theories and analyses related to startup entrepreneurship were developed. Most of the available studies on entrepreneurship in the Southern Mediterranean region focus on the macro level and typically ignore the micro components of entrepreneurship. A notable exception in this sense is the Global Entrepreneurship Monitor, which combines macro, meso, and micro perspective on entrepreneurship and which has been also applied in several countries in the region (Arabiyat et al., 2007).

This study aims at filling this gap in the literature and provides an in-depth empirical view on innovative emerging entrepreneurship in two selected Southern Mediterranean countries, namely Jordan and Morocco. The findings will be both analysed in relation to existing theories and paradigms, as well as in relation to similar evidence from different (industrialised) countries. In particular, findings are related to the balanced skills view (also known as the 'jack of all trades' hypothesis, Lazear, 2005), to the investment and endowment hypotheses (Silva, 2007, resp. Stuetzer et al., 2013), and, empirically, to the findings of the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE) (Gruenhagen et al., 2016; Davidsson and Steffens, 2011; Davidsson et al., 2011).

The target group of the study is a non-random representative sample of 72 innovative nascent entrepreneurs and startups in Jordan and Morocco.<sup>1</sup> We hereby focus on entrepreneurship that is innovative, opportunity driven with a high potential for growth, scalability, and job creation, motivated by the fact that its investigation may provide useful insights and develop crucial policy recommendations on how to foster and sustain high potential emerging businesses. This also conforms to the traditional Schumpeterian view on entrepreneurs, seeing the entrepreneur as the growth engine of an economy (Schumpeter, 1934; 1942; Drucker, 1985).

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<sup>1</sup> Our sample is comparable in terms of size to the subsamples of innovative high potential startups in the first wave of CAUSEE and PSED studies, with 76 and 99 non-randomly selected innovative startups respectively.

Furthermore, the strategy of supporting a few high-impact and growth oriented entrepreneurial firms, rather than merely trying to maximise the rate of self-employment or the number of SMEs, notwithstanding their innovation potential, has been proven to yield far higher economic benefits in several countries (Audretsch and Keilbach, 2005; Shane, 2008). This partially explains why Total Early-stage Entrepreneurial Activity, which is one of the major indicators captured by the Global Entrepreneurship Monitor (GEM) and which simply focuses on the number rather than on the profile of enterprises, is negatively correlated with economic freedom, global competitiveness and economic growth (Acs et al., 2017).

The paper is articulated as follows: a review of the literature on nascent innovative entrepreneurship highlights the need for specific analysis targeting the reality of innovative startup entrepreneurship in the Southern Mediterranean (Section 2). Section 3 discusses theoretical background and research hypotheses, while Section 4 presents the methodology of empirical investigation, the interview and sampling structure. Section 5 reviews the main results from the interviews and tests the research hypotheses. Section 6 concludes and derives some policy implications.

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## Studying Nascent and Early Stage Entrepreneurship

Entrepreneurship is defined as the process of new venture creation. Entrepreneurship can be defined by both considering formal and functional aspects: the entrepreneur is the owner and/or founder of a firm (Reitan, 1997), who assumes the risk and takes responsibility (Schmolders, 1971), as well as someone acting entrepreneurially and pushing innovations (Schumpeter, 1952; Drucker, 1985). As the process of new venture creation involves recognising and exploiting new (profit) opportunities (Hitt et al., 2002), entrepreneurship can be conceptualised as "a dynamic process of vision, change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions" (Kuratko and Hodgetts, 2004). The entrepreneur is the one who actively renews and reshapes the economy and has been defined as "a person with a vision to see an innovation and the ability to bring it to market" (Acs et al., 2017). This definition associates entrepreneurship and innovation very closely but excludes from consideration a significant number of business owning entrepreneurs. (Acs et al. 2017).

In the literature, there are alternative definitions of what should be interpreted as nascent entrepreneurship. Following Brixy and Hessels (2010), "Nascent entrepreneurs are those who are actively involved in setting up their own business." In this perspective, nascent entrepreneurship strictly refers to the pre-startup phase, which has been also labelled "organisational emergence" (Gartner et al., 1992) or "gestation" (Reynolds and Miller, 1992). In this view, a nascent entrepreneur would be the individual who is in the process of founding a new business, but who still has not completed the transition to new business ownership (Carter, Gartner and Reynolds, 1996). An operative definition of this concept is, for example, the one suggested by the GEM framework, according to which nascent entrepreneurs are those individuals who have taken active steps to start a new business, but have still not paid employees for more than three months (GEM Global Report 2014).

The GEM framework introduces a related concept, i.e. of early stage entrepreneurship, which refers to adult individuals engaged in nascent entrepreneurship and new firm ownership, whereas a new firm is defined as a business that has been operative for between 3 and 42 months (GEM Global Report 2014). In this regard, early stage entrepreneurship includes nascent and new entrepreneurs. Under this classification, further stages of entrepreneurship are potential entrepreneurship, intentional entrepreneurship, established business ownership, and discontinued entrepreneurship.

It is critical to assume that the study of new organisations is comparable to the study of emerging organisations. This is particularly true for entrepreneurship research, where some traditions even identify entrepreneurship per se as the creation (or emergence; Gartner, 1993) of new organisations (Gartner, 1988). Following this line of reasoning would imply that entrepreneurship research should focus on entrepreneurial behaviour that "involves activities of individuals creating new organisations (ventures), rather than the activities of individuals who are involved with maintaining or changing the operations of on-going established business" (Gartner, 1988).

Venture formation occurs within a particular environmental, economic, social, community, and political context. However, ventures are not created by their context: they are initiated and shaped by entrepreneurs. This consideration has motivated interest in entrepreneurship research into determining the individual differences and factors that might prompt some individuals to engage in firm formation activities compared to others.

New venture creation is a process that includes several steps of behaviour (or gestation activities) that can be undertaken in different sequences, as related research has clearly

revealed (Reynolds & Miller, 1992; Sarasvathy, 2001). More specifically, gestation activities can be classified according to intentionality, boundaries, resources, and exchange (Katz and Gartner, 1988), or they can be alternatively disentangled into legitimacy building, relationship building, and resource-acquisition activities (Delmar and Shane, 2004).

Obviously, “knowledge about the behaviour of nascent entrepreneurs is also important for policy makers wishing to promote entrepreneurship, since it provides information about factors that facilitate or hinder entry into entrepreneurship” (Brixy and Hessels, 2010). Studying entrepreneurial behaviour in the emergence phase is also important, as evidence has shown that retrospective studies of successful startups and entrepreneurs were typically subject to hindsight and selection biases (Davidson, 2004). The hindsight bias (Fischhoff and Beyth, 1975) describes the tendency to see past events as being more predictable than they actually were (Cassar and Craig, 2009). In addition, focusing on established businesses automatically excludes “unsuccessful or prematurely terminated processes” (Davidson, 2004) thus leading to a selection as well as to a survival bias (Gartner et al., 2004). However, knowledge gained from studying successful startups cannot be used to infer whether failed nascent entrepreneurs behaved differently. The underlying challenge is to objectively track a firm's inception (Katz and Gartner, 1988; Reynolds and Miller, 1992; Carter, Gartner and Reynolds 2004).

Furthermore, investigating nascent entrepreneurship means highlighting certain human capital attributes and characterising them as potential drivers of startup success, by relating them to business development and to the set-up process of a firm (Brixy and Hessels, 2010).

The Panel Study of Entrepreneurial Dynamics (PSED) (Gartner et al., 2004) is one of the first and most influential empirical studies of nascent entrepreneurship. The first PSED was initiated in 1988 and was run in Argentina, Canada, Australia, Greece, The Netherlands, Norway and Sweden and the second followed in 2005. These studies represented important first steps towards systematically studying new venture emergence. The aim of the study was to elicit 75 factors that may affect the decision to start a business and a further 130 factors that may be associated with the ability to start a new venture. With the aim of following emerging business creation, the PSED was the first longitudinal research studying a representative sample of 830 emerging businesses (Reynolds, 2000; Gartner, et al, 2004). However, the random sample selection was not able to generate a sufficiently large group of nascent knowledge-intensive, high-potential innovative startups. As a result, the sample was dominated by imitative businesses, with modest aspirations and low potential for growth (Davidsson et al., 2011).

To address this issue, the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE) was based on a non-random sample, generated through contacts with many organisations that are likely to be in contact with innovative startups.

Focusing on innovative nascent and early stage entrepreneurship requires characterising emerging ventures according to their innovation profile. This is not a straightforward task, as there are different definitions and conceptualisations of innovation.

Most recent studies on innovation adopt the third edition of the Oslo Manual's definition of innovation (OECD, 2005): “An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations.” The underlying idea is that there are several types of innovation (product, processes, marketing, managerial and organisational). This implies that innovation can only be appreciated and

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understood in its context, (Tether, 2003). Based on its degree of novelty and innovativeness, innovation might be new to the world, new to the market (to the country(ies)), new to a sector, new to the firm or new to an individual. These distinctions are particularly crucial for developing countries (OECD,2005).

Typically, at the focal point of policy discussions, there is radical innovation, in the sense of “new to the world” innovation. However, this type of innovation usually requires a powerful R&D base and more fits the context of industrialised countries operating at the frontier of science and technology, rather than emerging and developing economies. Therefore, more feasible for countries at different levels of development, such as the Southern Mediterranean countries, are incremental and adaptive innovations, that are facilitated by available foreign knowledge and technology and their transfer. Incremental and adaptive innovations have been proven to yield conspicuous benefits for firms in developing countries (Sauter et al., 2008). Incremental and adaptive innovations can be new to the market, to a sector, the firm, or to the individuals (World Bank, 2010). Incremental innovations are usually driven by improving quality, performance, and design of products and services, typically requiring lots of learning and good cooperation between the different stage of a supply chain (Lundvall, 1985; Freeman, 1995). Incremental innovation can play a vital role in technological “leapfrogging” (Sauter et al., 2008) and can, thus, be extremely relevant for developing countries.

In this paper, we adopt the definition of innovation developed by the World Bank, according to which innovation means “technologies or practices that are new to a given society. They are not necessarily new in absolute terms” (World Bank, 2010).

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## Theoretical Background and Research Hypotheses

Our research interest uncovers and describes the emergence process of innovative startups in the Southern Mediterranean, especially Jordan and Morocco. The investigated aspects aim at capturing the pace by which progress is made in the process of venture creation, in terms of the total number of activities that are completed, available resources, sources of advice, perceived competitive advantages, and, most important, usefulness and variety of skills.

To define our target group, we rely on a definition of the nascent entrepreneur, according to which a nascent entrepreneur considers him or herself in the firm creation process and has been engaged in certain behaviours to implement a new firm.<sup>2</sup> Furthermore, a nascent entrepreneur is expected to own part of the new venture.

Although we have adopted a rather narrow definition of the entrepreneur as someone who brings innovation to the market, we remain very inclusive when it comes to the type of innovation and its level of technological sophistication. As mentioned in the previous section, we address entrepreneurs that are introducing new technologies and practices in a given society or a market. Thus, innovative ventures could be in high tech but also in mid tech, low tech or even non tech sectors, as long as they are introducing innovative/disruptive processes and business models.

Besides screening the profile of existing nascent entrepreneurs, entrepreneurial and gestation activities and comparing results to existing evidence on nascent entrepreneurship in other countries, the specific aim of this study is to test several hypotheses that have been often discussed in entrepreneurship research. First, we consider the “jack-of-all-trades” theory (balanced skill set), as proposed by Lazear (2005). This framework highlights the importance of the combination of different aspects of human capital in a balanced set of skills for entrepreneurs. Lazear’s basic assumption is that entrepreneurs must be competent in many skills because they have to combine different resources, such as physical and financial capital, people and ideas, in order to successfully run a business. There is still no conclusive empirical evidence on the role of balanced, that is, general skills, on the outcome of venture startup efforts. In particular, there are studies revealing a non-significant effect for education, as well as of previous working experience on start-up success (Davidsson and Gordon, 2009). These findings coexist with results pointing at a positive effect of employment experience on startup success (Bourdieu, 1986; Nahapiet and Ghoshal, 1998) and, in particular, of experience in young, small entrepreneurial firms (Wagner, 2004).

In this study, we thus contribute to the empirical literature on the “jack-of-all-trade” hypothesis, testing the effect of balanced skills on the potential of a nascent firm (proxied by perceived competitive advantages of firms). In doing this, we rely on the Resource Base View (RBV) of the firm (Barney, 1991). This approach assesses the firm as a bundle of resources, which can be used towards gaining a competitive advantage (Barney, 1991).

Thus, we adhere to the view that individuals with a more balanced skills profile are more likely to opt for self-employment (Lazear 2005; Silva 2007; Wagner 2006) and since we focus on nascent and early stage innovative ventures, we are not really interested in checking the effect of general balanced skills on a venture’s performance, which may not account for the

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<sup>2</sup> Examples of such activities are: having applied for a bank loan, prepared a business plan, looked for a business location, or taken other similar actions aimed at starting the intended business.

heterogeneity in the stage of development of the different startups, but rather on the perceived competitive advantages of the nascent company.

This translates into the first research hypothesis:

***H1: Balanced skills and variety of education influence the competitive advantages of a nascent venture***

In particular, to test for the first proposition, the score of perceived competitive advantage of a company is regressed against balanced skills, variety of education, and the number of gestation activities.

Furthermore, we are interested in investigating the origin of balanced skills, thus comparing the predictive validity of endowment (Silva, 2007) versus investment hypothesis (Lazear, 2005; Stuetzer et al., 2013). We thus formulate and test two further research hypotheses:

***H2: Balanced skills are the result of purposive investment***

***H3: Balanced skills are the result of individual endowment and predisposition***

The proposition H2 translates into testing the following aspects: balanced skills are positively related to entrepreneurial and managerial experience (Stuetzer et al., 2013), as well as to the decision to start a business being the real trigger for starting the venture, rather than the business idea. We refer to this aspect as “the entrepreneurial intention”.<sup>3</sup> Further, the number of business partners and owners can be also be associated with a purposive investment into a more general skills profile (Davidsson and Gordon, 2009; Cantner and Stuetzer 2010).

H3 is made up of operational testing as to whether balanced skills are positively related to variety in education, which can be associated with an appetite for variety (Astrebo and Thomson, 2011), to early entrepreneurial competence, and to parent entrepreneurs (Shapero and Sokol, 1982).

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<sup>3</sup> For an interesting discussion into the role of entrepreneurial intention, see Del Mar & Shane, 2003.



## Structure of the interviews

The semi-structured interviews were articulated to elicit a broad spectrum of aspects of entrepreneurial activity and profile. In doing that, for completeness and comparability purposes, we rely on the structure of the CAUSEE and PSED surveys. Specifically, the interviews aimed at screening and classifying the venture, identifying the most important gestation activities, novelty of business idea and triggers of eventual changes to it, causation versus effectuation logics, entrepreneurial resources in terms of skills profile and competitiveness, sources of funding and advice, as well as growth expectations (Table 1).

**Table 1:** Structure of interviews

<b>STRUCTURE OF INTERVIEWS</b>	
<b>A. Screening questions about the start up venture</b>	
<b>B. Individual demographic background</b>	
<b>C. Classifying the venture</b>	<ul style="list-style-type: none"> <li>a. Sector, business incubator or not, online presence and sale</li> <li>b. Legal form, registration</li> <li>c. Ownership structure</li> <li>d. Business idea generation</li> <li>e. Motivation (opportunity versus necessity)</li> <li>f. Expansion mode</li> <li>g. Technology adoption and R&amp;D</li> </ul>
<b>D. Gestation activities</b>	<ul style="list-style-type: none"> <li>a. Business plan</li> <li>b. Capital investment</li> <li>c. Patents and copyrights</li> <li>d. Market and consumer survey/ screening</li> <li>e. Entrepreneurial education and training</li> </ul>
<b>E. Novelty of business idea</b>	
<b>F. Change of business idea</b>	
<b>G. Causation versus Effectuation</b>	
<b>H. Resources (skills)</b>	<ul style="list-style-type: none"> <li>a. Team resources</li> <li>b. Education</li> <li>c. Work experience and skills</li> <li>d. Entrepreneurial experience</li> <li>e. Funds &amp; other contributions</li> <li>f.</li> </ul>
<b>I. Resources (resource advantages and competitiveness)</b>	
<b>J. Sources of funding</b>	
<b>K. Sources of advice</b>	
<b>L. Growth expectations</b>	

Our target group included both individuals who succeeded in setting up their own firm, operational for less than 5 years, and those who were still in the process of setting up a business. Thus, we considered both registered and non-registered early stage and gestation enterprises.

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## Sample and Methodology

Data has been collected via in-depth semi-structured face-to-face interviews. In each country, a non-random sample of nascent innovative entrepreneurs (startups and young innovative firms) was generated via contacts with incubators, accelerators, VCs and entrepreneurship event organisers. Specifically, a non-random sample of 72 entrepreneurs (41 entrepreneurs for Morocco and 31 for Jordan) took part in the study. The interviews were run between July and November 2017.

For similar types of studies, convenience sampling is actually the only viable sampling option. Generating a sufficiently large sample of high-potential innovative startups via random contacts with households would be exceedingly expensive and time consuming. Actually, sampling problems may be one of the main reasons for the small number of empirical studies focusing exclusively on nascent entrepreneurship (Brixy and Hessels, 2010). Nascent entrepreneurs and startups are in many cases unregistered, making it very difficult and extremely costly to try to attempt to sample them (Reynolds, 1997). As a second option, we rely on the same strategy applied by the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE), which obtained a theoretically valid representation of high potential nascent and young firms via contacts with organisations that are likely to be in contact with such ventures. However, the non randomness of the sample does not really indicate a problem, as results are intended to be generalised to the very specific target group of innovative nascent ventures in the respective countries.

All the interviewed startups were less than 5 years old. Almost two thirds (66%) had generated sales revenues for more than 6 months out of the past 12 months. However, only 30% could be considered as young innovative startups, which means that their monthly revenue had been more than monthly expenses for more than 6 out of the past 12 months, whilst almost 70% were still in the emerging stage and classified as nascent startups (monthly revenue not covering expenses for more than 6 months out of the past 12 months).

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## Summary statistics and empirical results

As follows, the main results of the interviews will be presented. After a review of the main characteristics of the innovative startups sampled and discussion about their innovation-related profile, also compared to those of the CAUSEE study, the research hypotheses will be tested.

### Descriptive statistics on the sample

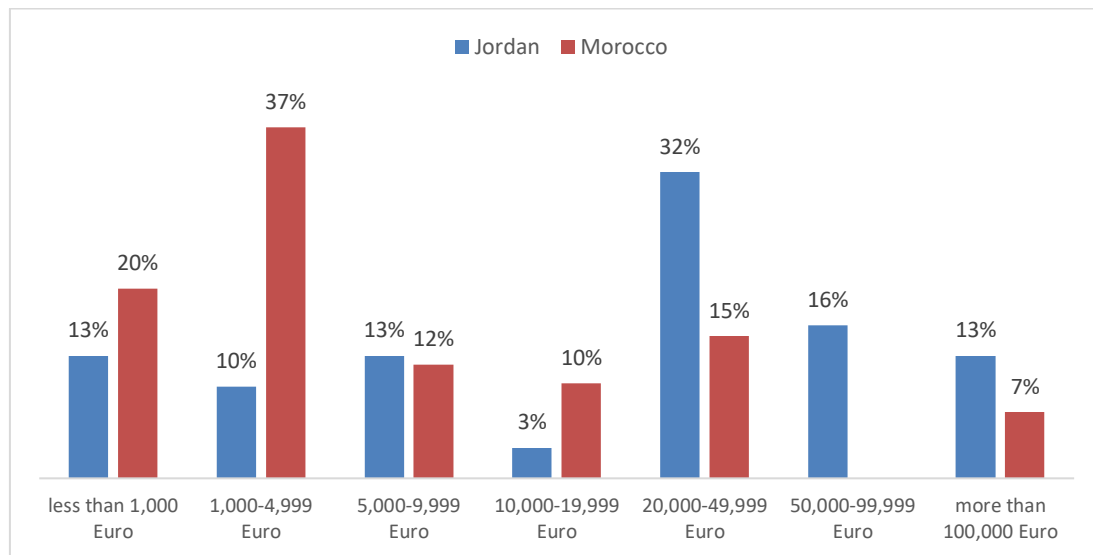
The sample of Moroccan startups consisted of 41 startup founders, which can be described as follows: 80% were male and 20% were females. The average age was 27.22 years old, the youngest was 16 years old and the oldest 39 years old. This is significantly younger than the average age of Australian high potential startup founders, whose average age is around 40 years old (Davidsson, 2008). The vast majority of respondents (93%) have a university degree: 63% have an engineer or masters level degree, followed by 22% who have a bachelor degree and 5% who have a PhD.

The interviewed sample of Jordanian startups consisted of 31 founders, 68% males and 32% females. The average age was 29.6, ranging from a minimum age of 21 and a maximum of 63. All of the respondents, except one, had a bachelor degree or above.

Concerning the geographic distribution of the sample, circa 80% of the Moroccan startups sampled were located either in Casablanca or Rabat, i.e. respectively the economic and administrative capital of Morocco. The remaining companies were located in Marrakech and Fès. Concerning the Jordanian sample, 67% of the startups were located in the capital city Amman (where, according to the latest Census result, more than 40% of the total Jordanian population lives), whilst the remaining 32% of companies were located in Irbid, the second largest city.

As regards to the founding team, Jordanian startups seem to prefer to work in teams: 61% of considered ventures were founded and owned by 2 partners, 29% had only one owner and founder, and the remaining 10% had three or more owners and founders. Thus, we hereby find a similarity with the findings of the CAUSSE survey (Davidson, 2011) where a full 69% of high impact startups are founded by teams. On the contrary, for the Moroccan sample single ownership is the most common option. A possible way to interpret this peculiarity of the Moroccan sample is that it may be linked to funds invested, which are typically lower for Moroccan startups than for Jordanian startups (Fig 1).

**Fig. 1:** Financial resources invested by the founders in their venture (Survey data)



Concerning the relationship amongst owners, for Jordan, 55% of partners were friends (specifically, 23% from previous work and 32% not from previous work), 27% were strangers before venture foundation, and 18% are relatives. For Morocco, almost two thirds of the interviewees (69%) qualified their partners as friends and acquaintances from previous work, 22% of the partners are just friends without any previous work experience together and only 12% of the partners are family members, either relatives or spouses.

In regard to the level of technological sophistication and the innovation profile of the screened companies, **Error! Reference source not found.** compares a sort of cross validation of our sampling; the characteristics of our sample to that of the subsample of Australian nascent, high potential startups considered by the CAUSEE study (Davidsson, et al., 2008b). It emerges that the share of companies perceiving themselves to be high-tech is in tune with that of the Australian high potential, nascent ventures. Differences can be ascribed to the developmental level of the three countries, as well as to the type of adaptive versus radical innovation, which is reflected in the lower share of IP protection application of both the Jordanian and Moroccan samples. A further explanation for this, however, may be provided by the different level of copyright enforcement and trademark regulations in the different countries.

**Table 2** : Comparison between Jordanian and Moroccan innovative startups and Australian startups, in terms of innovation and sophistication of the business (Survey data for Jordan and Morocco; Data on the Australian sample from CAUSEE (Davidsson et al., 2008))

	Jordan innovative startups	Morocco innovative startups	Australian high potential startups	Australian startups
Perceives the business to be high tech	77%	49%	66%	26%
Claims R&D spending as major priority	84%	54%	77%	40%
Has applied for IP protection	26%	22%	48%	6%
Entrepreneurial experience of the founder	39%	61%	82%	53%
Manufacturing	26%	7%	23%	7%
University education of one or more of the owners	97%	93%	65%	44%
Expected number of employees in 5 yrs (median)	8	9	20	2

A difference that can be noted between the samples is the median expected number of employees: it emerges from Table 2 that the expected number of employees of the Jordanian and Moroccan samples is lower than even that of the Australian sample of high potential startups (but clearly higher than that of the overall sample of Australian startups). We link this finding to the prevalence of micro and small enterprises both in Jordan and in Morocco (Ayadi et al., 2017).

The issue of what comes first, between the business idea and the decision to start a business, has been a controversial and much disputed subject within the field of entrepreneurship (Bhave,1994). In our case, the majority of founders (62%) highlighted the role of the business idea in triggering the entrepreneurial process. This is consistent with the findings of Davidsson et al. (2011) in Australia, where 67% of the founders of high potential startups emphasised that it was the idea rather than the wish to start a business that was the trigger. We relate this to entrepreneurial intention preceding the search for business opportunity.

**Fig. 2 :** Trigger of the entrepreneurial process: decision to start a business or business idea (Survey data)

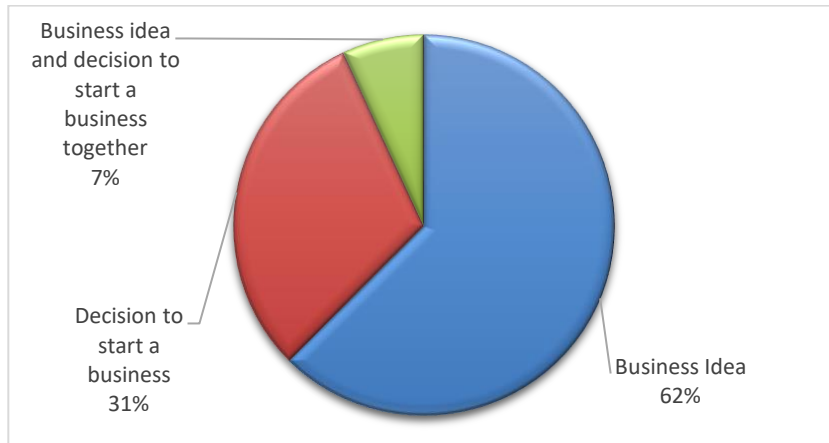
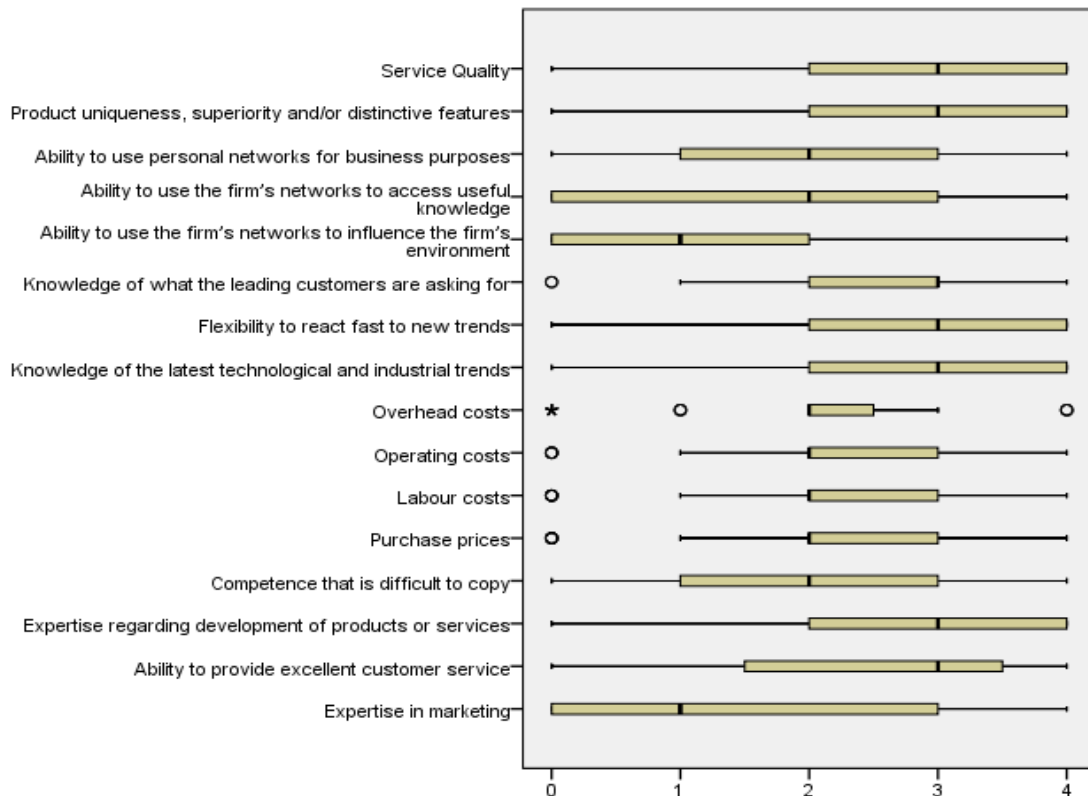
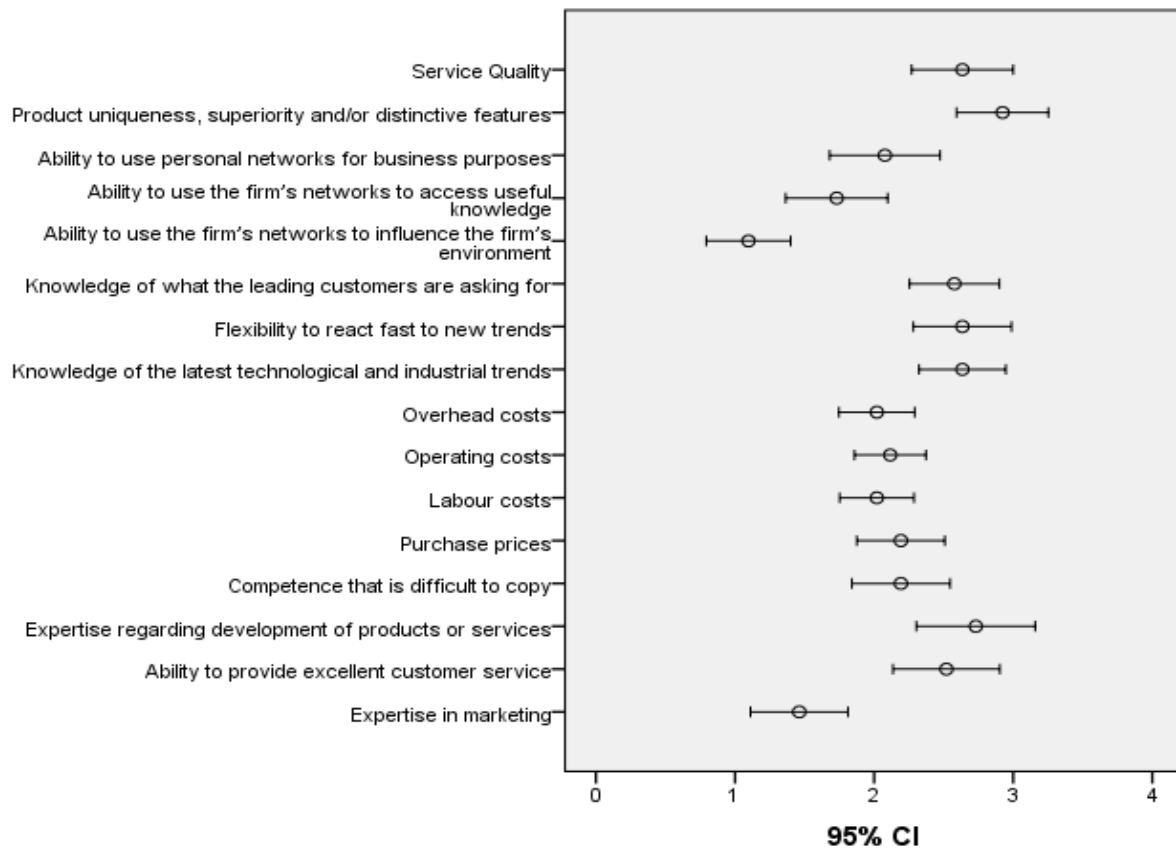


Fig 3 and Fig 4 present the findings concerning the entrepreneurs’ self-assessment of the competitive advantages of their respective ventures. Respondents were asked to rate on a scale between 0 (minimum) to 4 (maximum) how much they perceived different elements as representing a competitive advantage of their company.

**Fig. 3 :** Boxplot for perceived competitive advantages (Survey data)



**Fig. 4:** Intervals of confidence for the mean of perceived competitive advantages (Survey data)



Given the level of sophistication and innovativeness of the startups described in Table 2, it is not surprising that the startups reported more advantage in terms of product development expertise and its uniqueness as well as knowledge of the latest technological trends. Also, flexibility is an inherent characteristic of small companies. The fact that innovative startups do not rely heavily on cost as a competitive advantage is also not surprising. Although, some evidence from literature suggests that innovative first movers need to develop cost advantages if they are to maintain their success (Durand & Coeurderoy, 2001).

Furthermore, the interviewed startups mentioned, as a competitive advantage, their knowledge of what leading customers are asking for, but at the same time, they perceive their marketing expertise as being a disadvantage. They also highlighted their lack of networking capabilities. This could have a significant negative impact on their social capital and, subsequently, their ability to access and leverage necessary resources.

## Specification of variables for the empirical analysis

To test the research hypotheses, the variables and indicators listed in Table 3 have been considered and will be explained as follows:

**Table 3:** List and operational definition of variables used for hypotheses testing

Variable code	Variable name	Definition
SCORE COMP ADV	Competitive advantage score	Sum of competitive advantage self assessment/ max achievable score
BS	Balanced skills	1-CV (usefulness of experience)
EDU VARIETY	Variety of education	1-CV (usefulness of education)
GESTATION SCORE	Gestation score	Sum of gestation score/ max achievable score
ENTRE EXP	Entrepreneurial experience	Working experience in an entrepreneurial young small company (binary)
MGT EXP	Managerial experience	Working experience in a large established business
ENTRE INTENTION	Entrepreneurial intention	Decision to start a business as trigger to start the venture (binary)
INNOVATION	Innovation	Assessment of the innovativeness of radical or marginal innovation (binary)

### Competitive advantage score

The competitive advantage score introduces a measure for the perceived competitive strengths of the venture. This variable has been considered as dependent variable for testing H1 and has been developed based on the self-evaluation of the entrepreneur concerning the new venture's competitiveness profile, as presented by Fig. 3 and Fig 4. The dependent variable of H1 is score achieved divided by the maximum achievable score (i.e. 4 for each of the 16 possible advantages listed).

### Balanced skills (BS)

The interviews elicited the self-assessment of respondents concerning the usefulness of their experience ("To what extent you can help the new business with knowledge you gained from your experience in the following fields?") in regard to different aspects of business, in particular, (a) Sales, marketing, promotion or customer service, (b) Accounting, finances, controlling or auditing, (c) Administration or human resource management, (d) Knowledge needed for research and developing products and/or services in your industry/sector, and (e) Knowledge needed for producing products or delivering services in your industry/sector. Responses were rated on a scale between 0 (minimum) and 4 (maximum).

We then constructed a measure of balanced skills, BS, defined as one minus the coefficient of variation of the responses. In doing that, we have relied on previous studies in which indicators



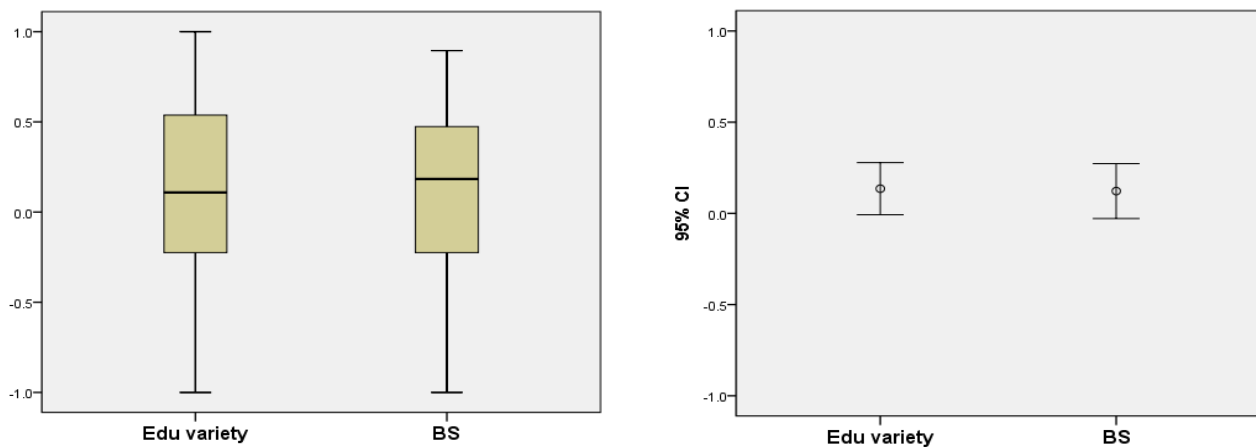
for balanced skills have been developed, based on the variance of skills (Hsieh et al., 2016) or as one minus the standard deviation of the skills profile.

Given the scale in which the responses have been coded, the coefficient of variation was more appropriate for being used as a measure of skills variability. This was subtracted to one, to obtain a measure of low variability of skills, i.e. of balanced skills.

**Variety of education (Edu Variety)**

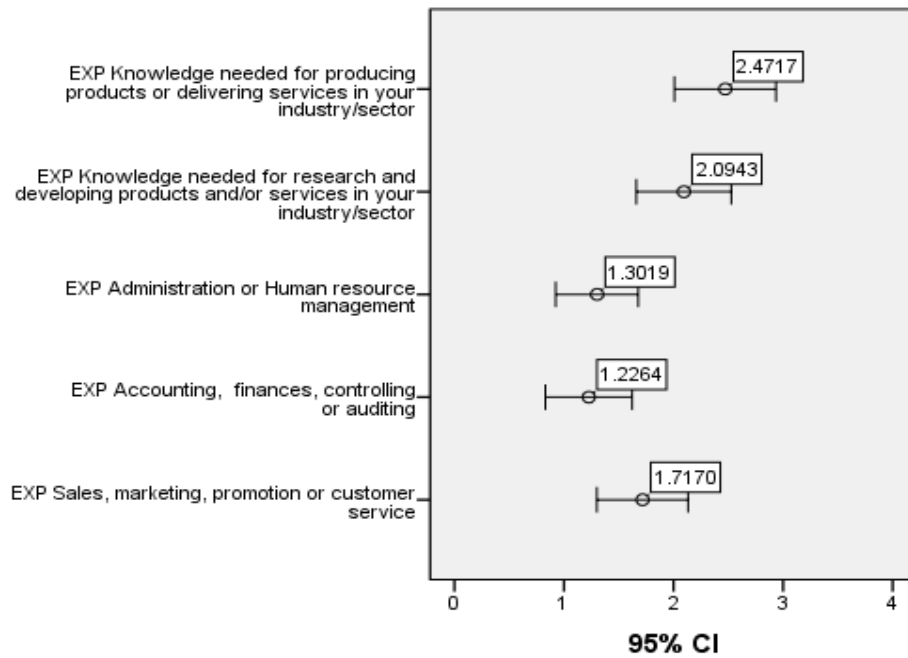
To capture the innate predisposition to generality (a sort of ‘taste for variety’ as in Astrebo and Thomson, 2011) or rather to specialisation, we asked the respondents to rate the usefulness of their education, concerning the same aspects considered in regard to the usefulness of experience. Based on this, we have developed an indicator for the variety of education (Edu Variety) equal to one minus the coefficient of variation of the responses. Fig 5 presents the two indicators, balanced skills and variety of education.

**Fig 5 :** Boxplot and interval of confidence (95%) for balanced skills (BS) and of variety of education (Edu variety) indicators (Survey data)

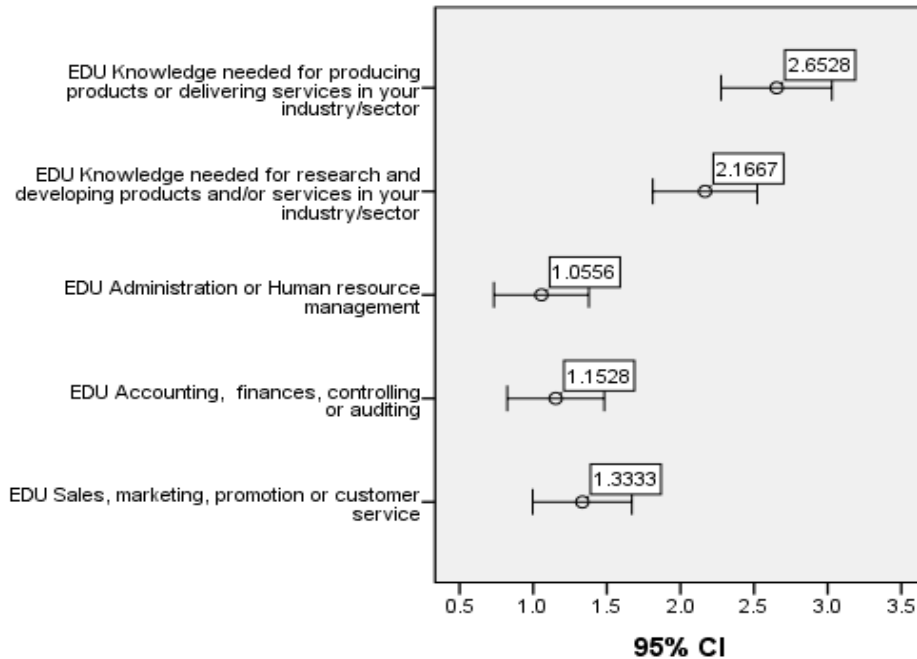


In general, the indicators as well as the analysis of their components, reveal that the entrepreneurs feel that the knowledge they gained from their formal education was more useful for mastering the technical aspects of the project, like engineering, R&D and the production process. Skills in finances, accounting, administration and human resources management emerged as the weakest skills components (Fig 5 and Fig 6). Data did not reveal significant differences across countries.

**Fig 6:** Perceived usefulness of experience (Survey data)



**Fig 7 :** Perceived usefulness of education (Survey data)



In addition to the necessary technical skills, the experience based knowledge coming from work and entrepreneurial experience was more useful in balancing their skills set, in terms of sales, marketing and promotion. Working for small companies, or having previous entrepreneurial experience, is regarded as the best route to purposely acquiring a balanced

skills set. (Suetzer et al., 2013). The lack of complex and specialised hierarchical structures exposes the entrepreneur or the employee to a variety of tasks and provides plenty of opportunities for learning on the job, which leads to balanced skills.

### Gestation score

In interviews, we asked about the gestation activities already undertaken at the time of the interview. The gestation score was built as share of undertaken gestation activities out of the total. Gestation activities have been formulated and listed relying on Samuelsson and Davidsson (2009), as well as on Stuetzer et al. (2013).

Further variables used in testing the hypotheses are binary variables for **entrepreneurial experience** (i.e. working experience in an entrepreneurial, young small company), **managerial experience** (in a large established business), **entrepreneurial intention** (i.e. if the decision to start a business, rather than the business idea, was the trigger to start the venture), and **innovation** (i.e. a self- assessment on the type of innovation brought to the market by the new venture, in the sense of being a radical or marginal innovation).

Our main research interest is to disentangle the factors that are behind the competitive advantages of the startups or, better still, the factor that startups themselves perceive as being crucial for their competitive advantage. In other words, we are not investigating the objective comparative advantage of early stage innovative companies or their objective growth potential, because that would assume applying the same logic to both emerging and established ventures. Rather, we are digging into the startups' own experience and perception of success factors, which, we believe, yields fundamental insights into the process of venture creation from within.

## Hypotheses testing

The dependent variable for testing H1 has been developed, based on the self-evaluation of the entrepreneur concerning the new venture's competitiveness profile, as presented by Fig 3 and Fig 4. The dependent variable of H1 is score achieved divided by the maximum achievable score (i.e. 4 for each of the 16 possible advantages listed). This is regressed against indicators for balanced skills, for variety of education, and for gestation process.

The results of a linear regression to test **H1** are presented in Table 4. Statistical tests have been generated applying the software EViews and SPSS. The results of the Jarque–Bera statistics (2.01, with  $p=0.365$ ) reveal that variables are approximately normally distributed.

**Table 4** : Test of H1: Balanced skills and variety of education influence the competitive advantages of a nascent venture

Dependent Variable: SCORE\_COMP\_ADV

Method: Least Squares

Sample: 1 73

Included observations: 73

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0,366029	0,042737	8,564645	0
BS	-0,119065	0,046512	-2,559869	0,0127
EDU_VARIETY	0,080894	0,036593	2,210648	0,0304
GESTATION_SCORE	0,35994	0,089224	4,034109	0,0001

<b>R-squared</b>	<b>0,271422</b>	Mean dependent var	0,524829
<b>Adj. R-squared</b>	<b>0,239745</b>	S.D. dependent var	0,170902
S.E. of regression	0,149014	Akaike info criterion	-0,916314
Sum squared resid	1,532161	Schwarz criterion	-0,790809
Log likelihood	37,44546	Hannan-Quinn criter.	-0,866298
F-statistic	8,568339	Durbin-Watson stat	0,965478
Prob(F-statistic)	0,000065		

The findings presented in Table 4 and, in particular, the results of the F-statistics reveal that the regression relies on a statistically significant model. The adjusted R<sup>2</sup> of 0.24 suggests that the regressors explain 24% of the variance of the dependent variable, which can be considered as a good result for behavioural studies and interviews. Specifically, the variety of education and gestation score yield a significant positive effect, whereas balanced skills have a significant negative effect on competitive advantage. The negative relationship between balanced skills and the competitive advantage score posits that balanced skills increase the variability of competitive advantages, but not the absolute score. The existence of a weak positive correlation between balanced skills and the standard deviation of competitive advantage supports this view.

We disentangle the second and third research hypotheses (**H2** and **H3**) into different sub propositions that we test according to the results of a correlogram. In particular, we are interested in testing the correlation between balanced skills, a metric variable, with several binary variables. In this case, the appropriate measure of correlation to be applied is the Point Biserial Correlation (Field, 2009). The Point Biserial Correlation is a special case of Pearson's correlation coefficient. The results of the correlation analysis are provided in Table 5.

**Table 5:** Point Biserial and Pearson's correlations to test for H2 and H3

Correlations							
Variables	Edu variety	BS	Mgt_exp	Entre_exp	Parents_entre	Entre_intention	Innovation
Edu variety	1	.354*	,070	.313**	-,115	,112	-,141
BS	.354*	1	-,181	-,115	.314*	,109	-,200
Mgt_exp	,070	-,181	1	,096	-,013	-,179	.265*
Entre_exp	.313**	-,115	,096	1	-,218	.235*	-,261*
Parents_entre	-,115	.314*	-,013	-,218	1	-,072	,059
Entre_intention	,112	,109	-,179	.235*	-,072	1	-,216
Innovation	-,141	-,200	.265*	-,261*	,059	-,216	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The evidence obtained provides interesting insights into the complexity of the issue and rather provides support to the view that balanced skills are the result of individual endowment and predisposition (H3).

The findings supporting the view that balanced skills are the result of individual endowment (H3) are namely: the positive significant correlation between balanced skills and variety in education. The data suggests that there is almost 12.5% common variance between variety in education and balanced skills. Further support for the innate predisposition view is that having parent entrepreneurs can be associated with more balanced skills, as the correlation between these two variables is significant at 5% level.

Further factors that need to be considered are that there is a significant correlation between entrepreneurial experience and variety in education. This result provides support for the importance of balanced skills for entrepreneurship, as it may be ascribed to the selection mechanism of employment in entrepreneurial firms who would rather prefer to hire individuals with a diversified skills profile. On the other hand, the significant positive (but lower in value) correlation between entrepreneurial intention and entrepreneurial experience may hint at a purposive career choice in entrepreneurial firms where individuals have a clear business intention in order to acquire the skills and experience for the perspective startup.

A final finding, on which there needs to be comment, is the significant correlation between both entrepreneurial and managerial experience and the variable innovation, which reflects the perception of the type of innovation of a firm, classified into radical (1) or marginal (0). Radical innovation seems to be positively linked to managerial experience and negatively to entrepreneurial experience.

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## Conclusion

This research has provided useful insights and observations about the entrepreneurial emergence of innovative startups in Jordan and Morocco, as a special case amongst the Southern Mediterranean countries, which have, typically, been neglected by entrepreneurship research.

The study is based on the results from in-depth interviews conducted over a non-random representative sample of 72 innovative nascent entrepreneurs and startups. After screening the sample concerning entrepreneurial characteristics and gestation activities, several hypotheses, which have often been discussed in entrepreneurship research, have been tested. The first research hypothesis tests the 'jack of all trades' theory as formulated by Lazear (2005) and posits the significance of balanced skills for entrepreneurial gestation and emergence. The second and third research hypotheses investigate the origin of balanced skills, comparing the compelling view of purposive investment (Suetzer et al., 2013) versus endowment of an individual's balanced skill set (Silva, 2007).

Overall, these research questions are important for assessing whether and how entrepreneurship can be taught and fostered (Sexton and Upton 1987) and are at the core of the highly policy-relevant debate on entrepreneurship education (Sandri, 2016).

The findings hint at a significant role of a balanced skill set and of a variety of educational profile on the perceived competitive advantages of nascent and new, innovative companies. The nascent and young entrepreneurs screened, however, seem to be rather specialised in their skill profile and assess the knowledge they gained from their formal education as being more useful for mastering the technical aspects of the venture's foundation and management.

Furthermore, the findings corroborate the view that balanced skills are more the result of individual endowment and predisposition, rather than of purposive investment. This is revealed by the significant correlation between balanced skills and variety of education, as well as between balanced skills and having self-employed parents. The importance of having parent entrepreneurs is not new to the literature and has been often associated with a higher propensity towards entrepreneurship as a viable career option (Shapiro and Sokol, 1982).

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