THE FOUR LEADERSHIP STYLES OF ENTREPRENEURS – A COMPETENCY-BASED MODEL FOR ENTREPRENEURIAL LEADERSHIP

This research addresses a gap in the literature of a comprehensive model for entrepreneurial leadership style and constructs a model of the entrepreneur-specific leadership style approaching the topic from the angle of competencies. This study methodologically applies literature research and the case survey method with multiple types of quantitative analysis. The paper introduces five leadership dimensions to structure relevant entrepreneurial leadership competencies and identifies the most vital critical entrepreneurial leadership competencies as partnering, communication and discovering customer needs. Four leadership styles – Lone Wolf, Team Builder, Explorer and Architect – are suggested as characteristic for successful entrepreneurs. This paper is the third in a sequence of research papers and presents significant new findings from the research programme.

Keywords: Entrepreneurship, Leadership, Competencies, Leadership style, Case survey method

There has recently been an emerging academic debate on entrepreneurial leadership style and related contingency models (Gupta, MacMillan, & Surie, 2004; Renko, El Tarabishy, Carsrud, & Brännback, 2015; Subramaniam & Shankar, 2020; Vidal, Campdesuñer, Rodríguez, & Vivar, 2017), but no clear model for entrepreneurial leadership style and its measurement has arisen so far. This research contributes to the debate by summarising what has been achieved thus far, but, more importantly, it also introduces a new approach applying leadership competencies to construct a model of entrepreneurial leadership styles. The ultimate objective of this research is to understand what leadership styles entrepreneurs employ to overcome challenges they face during the entrepreneurial process. This work contributes to both theory and practice by proposing a comprehensive model for entrepreneurial leadership styles applying entrepreneurial competencies.

Such a model would have several practical applications, including for venture capital professionals concerning investment selection and in portfolio-management decision processes. The results presented here may also improve the incubation programmes of entrepreneur accelerators.
Consultants and mentors working in the sector might use it as a tool to assist their clients. Entrepreneurs themselves can be more aware of their strengths and weaknesses and better understand their personal development needs. Business schools could rely on the results of such a model in developing their curricula for entrepreneurial development programmes. Leaders, with developing self-awareness and focused education, could adapt their leadership style to situations; thus, leadership style need not be inborn but can be developed (Sethuraman & Suresh, 2014). This paper is the third in a series of research papers (Kassai, 2020a, 2020b) and presents novel results from the research programme.

Theoretical Background

Entrepreneurial leadership style

While there has been a proliferation of studies on the essential entrepreneurial competencies (see following sections), limited research has focused on the leadership styles of entrepreneurs. Indeed, some even argue there is no such thing as an entrepreneurial leadership style (Gross, 2019). One of the more complete studies in the file, that by Gupta et al. (2004), applied a cultural approach and concluded that, although firms in different countries are becoming more alike, individuals’ behaviour maintains cultural specificity. Gupta et al. offer a concise methodology for measuring entrepreneurial leadership style using the global leadership and organisational behaviour effectiveness (GLOBE) study on leadership, and their findings provide evidence for “the ‘etic’ or cross-cultural universal nature of entrepreneurial leadership, and insights on factors contributing to societal differences in the perceived effectiveness of entrepreneurial leadership”. A recent study suggests that three distinctive mindsets – people-oriented, purpose-oriented and learning-oriented – play an essential role in successfully implementing entrepreneurship (Subramaniam & Shankar, 2020) and can be interpreted as entrepreneurial leadership styles. In terms of methodology, an exciting attempt applied Hersey and Blanchard–type contingency model to a recent entrepreneurial sample in Ecuador (Vidal et al., 2017); this was less concerned about developing a leadership style model, and focused more on the application of an existing framework to a particular set of entrepreneurs. One of the most comprehensive efforts tested the influence of environmental, organisational and follower-specific contingencies on the success of entrepreneurial leadership. The application of a self-developed measurement tool, ENTRELEAD, identified three leadership styles: entrepreneurial orientation, transformational leadership and creativity-supportive leadership (Renko et al., 2015). The research community is far from reaching a consensus on a theoretical model for leadership styles of entrepreneurs, and this offers a critical area for research.

Leadership styles

The significance of leadership styles was recognised early in the leadership literature. From the 1960s, research on leadership styles and contingency theories dominated the field (Warrick, 1981). Leadership style models assume that people exercise leadership differently, and research has focused on identifying classifications levels for different styles. Two levels emerged such that two schools of leadership style-based research were identified: decision centred and behavioural models (Bakacsi, 2006) and the behavioural approach following the Ohio State University model or that of Blake Mouton’s managerial grid at the University of Michigan (Bakacsi, 2006; Safonov, Maslenikov, & Lenska, 2018; Warrick, 1981). Path-goal theory has surfaced as a concept focusing on how leaders motivate employees to achieve goals and “emphasises the relationship between the leader’s style and the characteristics of the subordinates and the work setting” (Subramaniam, 2018). According to path-goal theory, there are four leadership styles: directive, supportive, participative and achievement-oriented.

Conventional leadership style and contingency models have been helpful in identifying key leadership variables, but they remain a high-level approach. These models often try to describe reality from a helicopter view of two-by-two or three-by-three matrixes. Leadership styles go beyond current theories, so applying recent research results may introduce fresh ideas with direct applicability to practice. This paper is such an attempt in applying leadership competencies for the entrepreneurial sector.

Contemporary leadership studies focus on transformational leadership, leader-member exchange theory (LMX theory), implicit leadership theories, authentic leadership, charismatic leadership, ethical leadership and leadership affect and emotions (Lee, Chen, & Su, 2020). According to Bakacsi (2019), charismatic leadership focuses on the relationship between follower and leader. We can distinguish between charismatic and today’s neo-charismatic leadership based on the object of devotion: in the case of a charismatic leader, devotion is to the leader, and in the case of a neo-charismatic leader to the values and goals he represents and is part of the organisation’s vision.

An authentic leader is a mature leader with a strong, values-based, self-regulating personality with profound social and moral responsibility and generally has the personality trait of being sensitive to work-life-family balance (Cserháti, Fehérvölgyi, Csizmadia, & Obermayer, 2021).

The development of general leadership models has continued in the 21st century. A recent leadership style model builds on leadership markers and argues that the natural style falls into one of five categories along a spectrum: powerful, lean powerful, blended, lean attractive and attractive: “Style is best described by what you do, how often, and when” (Peterson, Abramson, & Stutman, 2020). Here, we define leadership style as the competencies leaders apply to achieve their professional goals, along with when and how those competencies are applied. This paper joins an existing research trend with this approach but pioneers in applying leadership competencies to entrepreneurs, suggesting that an entrepreneurial leadership style model answers what leadership competencies leaders apply when they actively engage with entrepreneurial tasks and roles.
Who is an entrepreneur?

There is agreement in the research community that a few roles – including personal risk taking, risk management, opportunity recognition, idea generation, product development and innovation, building relationships and communication – are a crucial part of being an entrepreneur (Filion, 2021; Khosla & Gupta, 2017; Robles & Zárraga-Rodríguez, 2015; Smith, Bell, & Watts, 2014; Tittel & Terzidis, 2020). These roles are not related to the age, life cycle or size of an organisation. Others argue that organisation development and leading organisations are also crucial in entrepreneurship (Bjerke & Hultman, 2003; Carton, Hofer, & Meeks, 2004; Gartner, 1988; Mitchelmore & Rowley, 2010; Puga, Garcia, & Cano, 2010; Tittel & Terzidis, 2020). This paper defines entrepreneurs as leaders who actively engage with entrepreneurial tasks and roles regardless of the nature of their organisation. This definition captures the essence of entrepreneurship and makes it possible to study entrepreneurial leadership where it is prevalent, without limiting it to early-stage businesses, following the supposition that “Entrepreneurial leadership is a distinctive style of leadership that can be present in any organisation of any size, type, or age” (Renko et al., 2015).

Entrepreneurial leadership

Research has established what we understand today about entrepreneurial leadership. One relevant definition focuses on influencing others to manage resources such that opportunity-seeking and advantage-seeking behaviours are strategically emphasised (Ireland, 2003). A broader understanding suggests entrepreneurial leadership as “influencing and directing the performance of group members toward the achievement of organisational goals that involve recognising and exploiting entrepreneurial opportunities” (Renko et al., 2015). Entrepreneurial leaders formulate their vision and lead their team in an uncertain environment, and they encourage a supporting cast of followers in the creation of strategic value (Dabić et al., 2021). Those two characteristics – future orientation and community building – both in an uncertain environment, distinguish entrepreneurial leadership from other leadership styles.

Entrepreneurial leadership has also been investigated based on values, authentic leadership, charismatic and transformational leadership. These studies have not produced convincing conceptual frameworks and still need to be tested empirically (Bagheri & Harrison, 2020). Entrepreneurial leadership has roots in traditional forms of leadership often discussed in the leadership literature (Gross, 2019); thus, entrepreneurial leadership has also been defined concerning general corporate leadership. Entrepreneurial leaders influence and motivate others to pursue entrepreneurial goals (Gupta et al., 2004), unlike other leaders who pursue different objectives. Entrepreneurial leadership assumes three practices: “practices that set the work climate, practices that orchestrate the process of seeking and realizing opportunities to grow the business, and hands-on practices that involve problem-solving with the people at work on a particular venture” (MacMillan & McGrath, 2000). Entrepreneurial leadership has also been compared to transformational leadership. The centre of entrepreneurial leadership emphasises opportunity-oriented behaviours by leaders and those who follow them. Although transformational leadership has some characteristics of these behaviours, they are not endemic (Latif et al., 2020). According to the research component of the Global Entrepreneurship Monitor, “charismatic leadership has an effect on entrepreneurial activity, greater than other leadership types and autonomous leadership has a negative impact on entrepreneurial activity” (Felix, Aparicio, & Urbano, 2019).

Leadership and competencies

“Competencies are fundamental defining characteristics of a person that are causally related to effective and/or excellent performance” (Boyatzis, 1983). Spencer and Spencer supplement this definition by stating that competencies can be generalised through cases and situations and remain constant over a reasonable period of time (Spencer & Spencer, 1993). After defining competence, researchers turned to the creation of competency inventories. These catalogues were initially generic lists of critical competencies for outstanding performance in various fields of application (Ganie & Saleem, 2018; Le Deist & Winterton, 2005). The parallel development of leadership and competency models naturally led to the link between the two directions of organisational research, and managerial and leadership competency models have been a popular topic of research (Megahed, 2018).

The leadership competency models that emerged in the 1990s were initially designed to be highly specific to a particular company and a specific job. The generalisation of competency models began by considering the overlaps between the individual competency models (Bakacsi, 2006). The creation of general leadership competency lists has become an important research direction, and such lists have become standard products of organisational development firms, which have created general lists and applied them to the particular organisational needs of their clients. Such competency lists are widely available, and this study employs one of the most comprehensive ones, the 120-item Leadership Competency Inventory (Leadership Competencies Library, 2021).

Previous research has employed several tools to develop a leadership style model for entrepreneurs, including cultural measures (Gupta et al., 2004), mindsets (Subramaniam & Shankar, 2020) and a task-relationship matrix (Vidal et al., 2017). Others have considered skills, competencies and challenges (Bagheri & Harrison, 2020) to study entrepreneurial leadership but failed to suggest a comprehensive model for entrepreneurial leadership styles. An essential path of current research has concentrated on building field-specific competency models to provide a deeper understanding of the unique, relevant competencies and tailored combination of competencies for the users of the models in a specific area of life (Megahed, 2018).
Entrepreneurial competencies are highly relevant for entrepreneurial success. By now, research has established that competent people are more likely to become successful at entrepreneurship (Omri, Frihka, & Bouraoui, 2015; Rose, Kumar, & Yen, 2006; Srun, Sok, & Soun, 2016; Unger, Rauch, Frese, & Rosenbusch, 2011). It is also generally accepted that entrepreneurs need to rely on a diverse set of competencies (Csákné Filep, Radácsi, & Timár, 2020; Krieger, Block, & Stuetzer, 2018; Lukovszki, 2011; Man, Lau, & Chan, 2002; Spanjer & van Witteloostuijn, 2017). There is much less consensus in the scientific community on what competencies entrepreneurs need. The last four decades have produced a vast literature on the topic (Table 1).

Tittel and Terzidis (2020) summarise the definitions of entrepreneurial competency and offer a few alternatives for characterisation. The term entrepreneurial competency, in their paper, is implied as a specific group of competencies relevant to the exercise of successful entrepreneurship (Mitchelmore & Rowley, 2010). This definition connects competencies, entrepreneurship and success and is thus the most relevant for this research. Entrepreneurial competencies are also understood as the combination of the skills, assets and systems used to compete when changing the business model for an existing business or in creating a business model for an entirely new venture (Kor, McGrath, & MacMillan, 2001).

### Summary of the Development of Entrepreneur-Specific Competency Models

<table>
<thead>
<tr>
<th>Source</th>
<th>Competencies defined</th>
<th>Key take-away</th>
</tr>
</thead>
</table>
| McClelland (1987)               | 1. Proactivity
2. Result oriented
3. Commitment to others         | In an early study, three categories identified                                        |
| Chandler & Jansen (1992)        | 1. Human, conceptual competence
2. Ability to recognise opportunity
3. Drive venture through fruition
4. Technical, functional competence
5. Political competence         | The most successful founders – those whose firms show higher growth and earnings – perceive themselves as competent in the entrepreneurial, managerial, and technical-functional roles |
| Mullins (1996)                  | 1. Responsiveness of the firm to changing market conditions.
2. Technical competencies
3. Ability to build relationships with current and prospective customers
4. Anticipate and better understand customer needs | Four competencies with a focus on market and customer relationship               |
| Baron & Markman (2000)          | 1. Social competencies                                                               | Emphasises the role of social competencies as a skill to be able to interact with others |
| Baum et al. (2001)              | 1. General competencies
2. Specific competencies         | Introduced the concepts ‘general’ and ‘specific’ competencies in entrepreneurship; general competencies include organisational skills and opportunity recognition |
| Man et al. (2002)               | 1. Opportunity
2. Relationship
3. Conceptual
4. Organising
5. Strategic
6. Commitment competencies      | Entrepreneurs need a balance between various competencies to attain long-term success |
| Erikson (2002)                  | 1. Perceived feasibility
2. Entrepreneurial creativity
3. Entrepreneurial competence
4. Ability to enterprise
5. Perceived behavioural control
6. Self-efficacy
7. Conviction
8. Resource acquisition self-efficacy | Entrepreneurial commitment is a necessary plus to competencies, and entrepreneurial competence is understood as an ability to recognise and envision taking advantage of opportunity |
| Rose et al. (2006)              | 1. Personal initiative
2. Strategic planning
3. Fundraising
4. Marketing
5. H.R. and organisational competencies | This study found that the entrepreneurs’ education level, working experience and whether their parents own business have a positive relationship with their success |
2. Human relations competencies
3. Entrepreneurial competencies
4. Conceptual and relationship competencies | Beyond its four competency categories, this study gives a holistic definition of entrepreneurial competence |
The diversity of approaches to entrepreneurial competencies discussed above reconfirms that it would be impossible to create a unified profile of entrepreneurs (Hines, 2004) and their vital competencies. However, there are clear culmination points around what competencies are essential for entrepreneurs, but there is clearly no consensus around a comprehensive list. In the classifications of Zaleznik and Kotter (Kotter, 2001; Zaleznik, 1981), both leadership and managerial competencies are essential for entrepreneurs. This study also contributes to the academic debate as to what competencies in what structure are most important for successful entrepreneurs due to this lack of consensus. The present paper offers a structure that helps answer what competencies entrepreneurs use to overcome the challenges they face when actively engaged with entrepreneurial tasks and roles.

<table>
<thead>
<tr>
<th>Source</th>
<th>Competencies defined</th>
<th>Key take-away</th>
</tr>
</thead>
</table>
| Unger et al. (2011) | 1. Human capital  
2. Planning  
3. Task-related human capital | Argues the importance of task-related human capital |
| Lukovszki (2011) | 1. Risk taking  
2. Decision-making  
3. Opportunity recognition  
4. Innovation  
5. Team building  
6. Communication | Creates six clusters of entrepreneurs |
| Smith et al. (2014) | 1. Drive and determination  
2. Calculated risk taking  
3. Autonomy, independence  
4. Need for achievement  
5. Creativity, innovativeness | Compares traditional and social entrepreneurs and finds five categories of relevant competencies |
2. Initiative  
3. Responsibility  
4. Dynamism  
5. Troubleshooting  
6. Search and analysis of information  
7. Results orientation  
8. Change management  
9. Quality of work | 20 competencies from the literature were narrowed to 9 using the Delphi method |
| Kyndt & Baert (2015) | 1. Perseverance  
2. Self-knowledge  
3. Orientation towards learning  
4. Awareness potential returns  
5. Decisiveness  
6. Planning for the future  
7. Independence  
8. Ability to persuade  
9. Building networks  
10. Seeing opportunities  
11. Insight into the market  
12. Social and environmentally conscious conduct | The authors created a 12-item list of the essential competencies and noted that insight into the market and perseverance can be considered crucial for entrepreneurs |
| Bacigalupo et al. (2016) | 1. Ideas and opportunities  
2. Resources  
3. Into action | European commission entrepreneurial competency model containing 15 competencies organised into three categories |
| Khosla & Gupta (2017) | 1. Comfort with uncertainty  
2. Laser-like focus and execution  
3. Flexibility in response to market needs  
4. Big picture perspective coupled with detail orientation  
5. People management with the right balance of delegation | Found five entrepreneurial traits that are predictive of entrepreneurial and organisational success |
2. Networking, relationship building  
3. Planning and goal setting  
4. Ongoing-self development | Studied entrepreneurs active for at least five years and underscores the importance of continued education and development |
| Tittel & Terzidis (2020) | 1. Domain competence  
2. Personal competence  
3. Social competence | Meta-study offering definition alternatives for entrepreneurial competency |

Source: Own literature review
Entrepreneurial leadership competencies

Reviewing the relevant literature allowed us to qualitatively identify five distinct groups of competencies that show significant importance for entrepreneurs. Our objective was to create a classification of competencies while grouping competencies into a single dimension that is similar or connects to the challenges entrepreneurs face. The ultimate objective was to understand what leadership styles entrepreneurs employ to overcome challenges they face during the entrepreneurial process. This classification allows us to better comprehend what is essential for entrepreneurs and what patterns one can recognise among those dimensions. The creation of the clusters or dimensions was based on a qualitative analysis of earlier research and classification of entrepreneurial competencies. There are tendencies and patterns for how scholars see some competencies as grouping more naturally together than others. Those dimensions were found to be: imagination, execution, social, organisational and personal. These four leadership dimensions were identified in earlier papers of this research programme and personal. These four leadership dimensions were identified in earlier papers of this research programme using case study analysis (Kassai, 2020a) and hierarchical cluster analysis based on an expert survey database (Kassai, 2020b) (Table 2).

Table 2
The Five Entrepreneurial Leadership Dimensions

<table>
<thead>
<tr>
<th>Competency Dimension</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagination (Opportunity Recognition &amp; Planning)</td>
<td>Chandler &amp; Jansen (1992); Baum et al. (2001); Man, Lau &amp; Chan (2002); Erikson (2002); Rose et al. (2006); Mitchellmore &amp; Rowley (2010); Unger et al. (2011); Smith &amp; al. (2014); Robles &amp; Zárraga-Rodriguez (2015); Kyndt &amp; Baert (2015); Bacigalupo et al. (2016); Gerig (2018); Tittel &amp; Terzidis (2020); Filion (2021)</td>
</tr>
<tr>
<td>Execution</td>
<td>McClelland (1987); Chandler &amp; Jansen (1992); Erikson (2002); Robles &amp; Zárraga-Rodriguez (2015); Bacigalupo et al. (2016); Khosla &amp; Gupta (2017)</td>
</tr>
<tr>
<td>Social</td>
<td>McClelland (1987); Chandler &amp; Jansen (1992); Baron &amp; Markman (2000); Man, Lau &amp; Chan (2002); Mitchellmore &amp; Rowley (2010); Kyndt &amp; Baert (2015); Bacigalupo et al. (2016); Gerig (2018); Tittel &amp; Terzidis (2020)</td>
</tr>
<tr>
<td>Organisational</td>
<td>Baum et al. (2001); Man, Lau &amp; Chan (2002); Erikson (2002); Rose et al. (2006); Mitchellmore &amp; Rowley (2010); Khosla &amp; Gupta (2017); Tittel &amp; Terzidis (2020)</td>
</tr>
<tr>
<td>Personal</td>
<td>McClelland (1987); Erikson (2002); Rose et al. (2006); Smith &amp; al. (2014); Kyndt &amp; Baert (2015); Tittel &amp; Terzidis (2020)</td>
</tr>
</tbody>
</table>

Source: Own literature review

Imagination is how entrepreneurs see the world and opportunities differently from others. This dimension refers to the ability to recognise opportunities and formulate plans to exploit those prospects. Opportunity recognition involves building a vision for the future, thinking strategically and creating action plans for execution and often derives from entrepreneurial creativity. Planning includes canvassing a vision and developing strategic, long-term plans and tactical, mid- and short-term plans. Effective planning is a big part of coping with uncertainties as they arise. To recognise market opportunities, entrepreneurs need to understand their environment so they can discover hidden and unmet customer needs. Innovation is at the borderline between imagination and execution because innovation is the realisation of an idea or discovery.

Execution refers to the capability of entrepreneurs to implement their plans. This dimension covers entrepreneurs’ result-oriented disposition, as they can act effectively to get things done by executing their long- and short-term plans. Execution often assumes excellent problem-solving ability, being decisive and executing sound judgement in critical situations. Managing risk and finances and effectively negotiating are core parts of execution competency. Being sufficiently personally organised and detail-oriented also leads to superior execution. Entrepreneurs drive change both inside and outside their organisations. Entrepreneurs’ creativity and idea recognition deliver tangible new products and services by innovating and managing technology and processes. The ability to adapt to changes is a core competency for entrepreneurs to deliver on their dreams and goals.

Social competency describes entrepreneurs’ ability to attract people to a business, set up teams and work with others effectively. This dimension includes competencies like communication, motivation and other soft skills that entrepreneurs need to employ to work with others to realise their vision and goals. Beyond their working organisations, successful entrepreneurs demonstrate outstanding social competencies by networking, building relationships and partnering with others if necessary. Among other competencies, being emotionally intelligent and effectively communicating allows entrepreneurs to inspire and motivate others, build trust and engage people to realise their plans. Personal integrity and a high level of ethical standards enable entrepreneurs to develop and nurture long-term business relationships. These solid foundations and long-term social bonds are fundamental when understanding the roller-coaster nature of the career and life of an entrepreneur.

Organisational competencies enable entrepreneurs to build and manage organisations to develop an engine to scale up products and services. A crucial part of designing and leading organisations is creating and maintaining organisational culture, delegating tasks, controlling processes, empowering others and managing human resources. Organisational competencies deal with structures rather than people, and leaders with solid organisational competencies create a positive working environment with a learning culture as well as an organisational culture of
accountability. It is necessary for entrepreneurs to demonstrate organisational agility, to work across organisational boundaries and to develop or integrate talents, including senior leaders, as well as leverage diversity with their business. Organisationally minded entrepreneurs even deal with the problem of succession and develop clear succession plans.

Personal competency differs from the other competency dimensions. This competency dimension describes entrepreneurs’ personal characteristics. They are often far more agile and ambitious than most people in their environment and take initiative instead of waiting for others. Entrepreneurs have a firm conviction in what they believe in and are ready to act when they see opportunity. Entrepreneurs have the personal drive to improve continuously and show vital learning agility; they often become subject matter experts in one or more topics. Being value driven, honest and ethical and having personal integrity also belong to this competency dimension.

Research Questions

To build a comprehensive entrepreneurial leadership model, the problem is reduced into two research questions. The first research question asks what competencies entrepreneurs employ to overcome the challenges they face during the entrepreneurial process. The study also aims to understand if these competencies can be structured from the entrepreneurial leadership point of view. The second research question asks whether successful entrepreneurs follow diverse, distinguishable leadership styles and whether the entrepreneurial leadership styles can be described by applying leadership competencies.

Research Design and Methodology

This research employs the case survey method following the “classical” four steps (Larsson, 1993). This research method provides a procedure for deriving hypothetical statements from multiple published case studies and overcomes the limitation of individual cases and lack of generalisability, allowing us to test research hypotheses (Stall-Meadows & Hyle, 2010) qualitatively and quantitatively. In this study, 54 published case studies with 72 protagonists were selected. Selection criterion for the case studies included offering ample information on entrepreneurs, their characteristics and leadership styles, preferably over a more extended period in various stages of the business life cycle. A set of cases with protagonists of diverse background, gender, age, businesses in varied development phases, industries and geographical locations were collected to support the generalisability of results. Cases from 16 industries, four continents and all five development phases were selected. Twenty-five per cent of protagonists of the case studies were female. (Detailed background data on the cases in involved in the research can be found in online annexe 1, and a full list of the case studies coded for the database can be found in online annexe 2.) The 54 case studies with 72 protagonists generate a sufficient set of data to reach the level of theoretical saturation, when adding additional cases and data to the analysis is unlikely to reveal new insights, neither can be expected to enhance the quality of the results (Horváth & Mitev, 2015).

The coding scheme for this study was based on a general leadership competency list. As discussed above, the subject of general leadership competencies is well researched. This study used a 120-item Leadership Competency Inventory (Leadership Competencies Library, 2021) as the basis for coding. The texts of the case studies were thoroughly examined, and a team of coders developed a database that included item coding based on the Leadership Competency Library. A coder added a record to the database when evidence was found that the given leadership competency was characteristic for the entrepreneur concerned in the case. The coding included the competency, phase of the business life cycle, when the competency was observed and the importance of the competency on a scale of 1–3. Each case study was characterised by industry and geographic location, and protagonists’ gender were recorded. The final database contained 1910 competency records as data points. The data set made it possible to employ multiple analytical tools, including hierarchical cluster analysis by the Ward and within-groups linkage methods, Spearman’s rank-correlation, chi-squared test and Pearson’s correlation analysis.

The case survey analysis was based on coding the texts of the case studies. Every caution was made to standardise and neutralise the coding process; however, we must accept that case study coding involves some amount of subjectivity. To reduce personal influence on coding, teamwork was introduced with a parallel coding regime. Two coders independently analysed each case study, and an entry was made in the final database if both coders recognised the competency in the given part of the text. The Leadership Competency Library provides a detailed description of each item, based on which the coders could develop a shared understanding of the competencies. Despite these precautions, subjectivity might have influenced the outcome of the coding practice. An additional subjective element was involved in the entire research project. The author of this study is an entrepreneur and has significant experience as an investor and manager of entrepreneurial ventures, and this personal experience also influenced the present research.

Results

The most important competencies

Table 3 presents the structured results of the competency coding. During coding, the coders recorded the appearance of a competency and indicated the importance of the particular competency towards the entrepreneurial success of the protagonist. Frequency means the number of appearances of competency in the database, while the score is the sum-product of frequency and the relative importance graded on a scale of 1–3, where 3 indicates vitally important, and 1 stands for less critical. The most critical
competency for entrepreneurs is, notably, the ability to find and execute the right partnership. The competencies of innovation and discovering customer needs follow closely. The personal competency of being self-driven and an organisational competency of hiring and staff complete the top 5.

Some competencies appear to be far more critical than others. The top 5 and top 10 competencies stand out from the 120-item competency lists. The top 5 competencies represent one item from each of the five competency dimensions, and the further competencies also include all the five dimensions. Table 4 shows the top 5 competencies by dimension.

**Can a competency be counterproductive?**
The case survey method assisted in identifying a few competencies that may be counterproductive for entrepreneurs. During the text coding process, the coders included in the database the competencies that facilitated entrepreneurial success and those that hindered it. Our team labelled a competency as being counterproductive, also on a (1)–(3) scale, in which (3) means the competency hinders the entrepreneurial objective significantly. For productive competencies, we used positive figures – the frequency table sums up those values. A negative total score indicates a competency to be counterproductive (Table 5).

### Identifying leadership styles
Using the five dimensions of leadership competencies identified in Table 2, a statistically valid hierarchical cluster analysis was applied to the data from the 72 protagonist.

### Table 3

<table>
<thead>
<tr>
<th>Rank</th>
<th>Competency</th>
<th>Dimension</th>
<th>Frequency</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Partner with others</td>
<td>Social</td>
<td>75</td>
<td>195</td>
</tr>
<tr>
<td>2</td>
<td>Innovate</td>
<td>Execution</td>
<td>74</td>
<td>182</td>
</tr>
<tr>
<td>3</td>
<td>Discover customer needs</td>
<td>Imagination</td>
<td>71</td>
<td>178</td>
</tr>
<tr>
<td>4</td>
<td>Driven</td>
<td>Personal</td>
<td>59</td>
<td>149</td>
</tr>
<tr>
<td>5</td>
<td>Hiring and staff</td>
<td>Organisational</td>
<td>64</td>
<td>137</td>
</tr>
<tr>
<td>6</td>
<td>Set vision</td>
<td>Imagination</td>
<td>51</td>
<td>137</td>
</tr>
<tr>
<td>7</td>
<td>Know the external environment</td>
<td>Imagination</td>
<td>58</td>
<td>136</td>
</tr>
<tr>
<td>8</td>
<td>Set strategy</td>
<td>Imagination</td>
<td>45</td>
<td>103</td>
</tr>
<tr>
<td>9</td>
<td>Subject matter expert</td>
<td>Personal</td>
<td>45</td>
<td>102</td>
</tr>
<tr>
<td>10</td>
<td>Network</td>
<td>Social</td>
<td>44</td>
<td>99</td>
</tr>
</tbody>
</table>

Source: Own analysis

### Table 4

<table>
<thead>
<tr>
<th>Social</th>
<th>Imagination</th>
<th>Execution</th>
<th>Personal</th>
<th>Organisational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner with others (195)</td>
<td>Discover customer needs (178)</td>
<td>Innovate (182)</td>
<td>Driven (149)</td>
<td>Hire and staff (137)</td>
</tr>
<tr>
<td>Network (99)</td>
<td>Set vision (137)</td>
<td>Manage finances (78)</td>
<td>Subject matter expert (102)</td>
<td>Design organisations (58)</td>
</tr>
<tr>
<td>Communicate effectively (80)</td>
<td>Know the external environment (136)</td>
<td>Results-oriented (67)</td>
<td>Ambitious (97)</td>
<td>Delegate effectively (47)</td>
</tr>
<tr>
<td>Inspire others (64)</td>
<td>Set strategy (103)</td>
<td>Negotiate (62)</td>
<td>Show learning agility (94)</td>
<td>Create a positive work environment (34)</td>
</tr>
<tr>
<td>Build teams (59)</td>
<td>Think strategically (72)</td>
<td>Solve problems (49)</td>
<td>Show conviction (82)</td>
<td>Show organisational agility (30)</td>
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</tbody>
</table>

Source: Own compilation

### Table 5

<table>
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<th>Competency</th>
<th>Dimension</th>
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<tr>
<td>Maintain work-life balance</td>
<td>Personal</td>
<td>(22)</td>
</tr>
<tr>
<td>Ethical</td>
<td>Social competencies</td>
<td>(13)</td>
</tr>
<tr>
<td>Seek and act on feedback</td>
<td>Social competencies</td>
<td>(11)</td>
</tr>
<tr>
<td>Patient</td>
<td>Social competencies</td>
<td>(10)</td>
</tr>
<tr>
<td>Compassionate</td>
<td>Social competencies</td>
<td>(8)</td>
</tr>
<tr>
<td>Caring</td>
<td>Social competencies</td>
<td>(6)</td>
</tr>
<tr>
<td>Tolerant</td>
<td>Social competencies</td>
<td>(6)</td>
</tr>
</tbody>
</table>

Source: Own analysis
nists in the case survey database. The analysis suggests that there are four statistically distinctive groups that can be interpreted as the leadership styles of entrepreneurs; we named these four leadership styles Lone Wolf, Team Builder, Explorer and Architect (Table 6).

The Lone Wolf style represents an entrepreneur whose most prominent advantage is getting things done. They are the real doers, who are often decisive, detail-oriented and have a good understanding of the industry in which they are involved. They primarily work on their own, they do not waste time or resources for coordination and they can be very effective at reacting quickly to changing circumstances. On the flip side, entrepreneurs with this style have limited social and organisational competencies, so they invest less time and effort into people and structures. They often have an analytical mind and a good grasp of the market and can see ahead, having imagination their second most crucial competency group. They are task rather than people-oriented entrepreneurs (Politis & Politis, 2009).

Team Builders predominantly rely on their social competencies to achieve their goals. They are highly people oriented and often build fruitful and long-lasting relationships inside and outside of their venture. Team Builders are good motivators of people and communicate very effectively. Besides being relationship and people oriented, they have balanced competencies in planning, imagination and execution. Entrepreneurs applying the Team Builder style create smaller originalisations, the ones that require fewer organisational competencies.

Explorers are visionary entrepreneurs who think creatively and strategically. They see the future differently than most of us, and they imagine a new world influenced by their ideas and plans. The Explorer style allows them to dream and design major inventions, and their execution and social competencies make it possible to implement those inventions commercially. Explorers understand the wider environment and discover new customer needs. Leaders with the Explorer style are often savvy technologically and expand the frontiers of the prevailing reality.

Architects’ central competency is designing and developing performing organisations. They often differ from Team Builders in terms of the scale of the organisations where they have the best fit. The Architect leadership style fits best in larger organisations that require complex structures to scale the business. Architects are strong at planning, but instead of championing technological advances or new product ideas, they use planning competencies to lead the business in turbulent and complicated market sit-

<table>
<thead>
<tr>
<th>Ward Method</th>
<th>Count</th>
<th>Social</th>
<th>Imagination</th>
<th>Execution</th>
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<th>Organisational</th>
<th>Style</th>
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<td>16</td>
<td>5%</td>
<td>35%</td>
<td>11%</td>
<td>18%</td>
<td>31%</td>
<td>Lone Wolf</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>22%</td>
<td>47%</td>
<td>16%</td>
<td>15%</td>
<td>1%</td>
<td>Explorer</td>
</tr>
<tr>
<td>3</td>
<td>22</td>
<td>13%</td>
<td>19%</td>
<td>38%</td>
<td>17%</td>
<td>13%</td>
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</tr>
<tr>
<td>4</td>
<td>17</td>
<td>32%</td>
<td>14%</td>
<td>14%</td>
<td>26%</td>
<td>14%</td>
<td>Architect</td>
</tr>
<tr>
<td>Total</td>
<td>Mean</td>
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<td>0.26</td>
<td>0.21</td>
<td>0.22</td>
<td>0.14</td>
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Table 6

Hierarchical Cluster Analysis of 72 Protagonists by Competency Dimension

ANOVA Table

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<th>Mean Square</th>
<th>F</th>
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<tr>
<td>Total</td>
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<tr>
<td>Imagination</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<tr>
<td>Execution</td>
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<tr>
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<td>Within Groups</td>
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<td></td>
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<tr>
<td>Total</td>
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<tr>
<td>Personal</td>
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<tr>
<td>Within Groups</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>0.014</td>
<td></td>
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</tr>
<tr>
<td>Within Groups</td>
<td>1.506</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own analysis
uations. Architects in smaller businesses are seen to be lost, and the high-cost level imposed by organisational structure often depletes a young venture’s resources.

Discussion

A game for partners and teams

Some competencies are far more critical than others for leading successfully as an entrepreneur. This research confirms the concept of a diverse set of competencies required to be a prosperous entrepreneur. The top five competencies represent one competency from each of the five distinct entrepreneurial leadership dimensions, and additional critical competencies also show a heterogeneous pattern in terms of leadership dimension. Research suggests that entrepreneurs are better off when relying on a diverse set of competencies (Krieger et al., 2018; Man et al., 2002; Spanjer & van Witteloostuijn, 2017) and should deliberately identify their competency “blind-spots” to develop into a leader who can apply various competencies along the road. Entrepreneurial education plays a critical role in assisting developing entrepreneurs achieve a balanced competency set (Sethuraman & Suresh, 2014). There is some debate as to whether competency diversity is critical at the start-up stage or whether it is essential later in the expansion and growth stages (Csákné Filep et al., 2020).

The top competency, “Partnering with others”, reinforces the concept of competency diversity. Because a broad competency base is required to succeed, a single entrepreneur can seldom bring all those leadership competencies to the business. Partnerships and leadership teams containing entrepreneurs with complementary competencies are more likely to excel than single entrepreneurs. A good example of this is the partnership of Steve Wozniak and Steve Jobs during the first years of Apple Inc. (Rothaermel, 2015; Wasserman, 2011).

Perilous role of influencers

Entrepreneurs see the world differently than others do, enabling them to innovate, discover new customer needs and attract talents and resources to their business. Nevertheless, when this unique entrepreneurial vision and working method is not respected, trouble may arise. From the list of counterproductive competencies (Table 5), we can conclude that seeking and acting on feedback is detrimental to entrepreneurial success. Investors can influence the entrepreneurial process. This research tentatively suggests that investors may be better off following entrepreneurs if they have already invested instead of influencing their thinking and working directly with them. A classic example of the unproductive dynamic between investors and entrepreneur was Frank Addante’s struggle with Sequoia Capital over the strategy and operations of StrongMail, a promising start-up providing e-mail delivery infrastructure software for enterprises (Wasserman & Uy, 2011).

The other group of people vulnerable to negatively affecting the entrepreneurial process are the hired managers. Dean Kamen’s experience at Segway with hiring professional management presents good learning points for the topic. Dean Kamen was an already proven entrepreneur when he invented Segway. He decided to hire a proven management team to develop the business. The management and the entrepreneur were out of sync, and Kamen could not add the entrepreneurial input that made him successful with his earlier ventures. This mismatch contributed to the fact that Segway did not realise its full business potential (Hamermesh & Kiron, 2004).

Earlier studies have pointed out the importance of mentoring in the start-up phase (Csákné Filep et al., 2020) and the positive impact accelerator houses have on entrepreneurs. Further research is required on how investors, managers, mentors and other influencers affect the entrepreneurial process, as well as the best way for them to work together to create value. This analysis suggests, however, an amplified risk if entrepreneurs, in their core activities, are influenced by outside stakeholders.

Five dimensions, four styles

Qualitative and quantitative research steps crystallised five leadership capability dimensions: imagination, execution, social, organisational and personal. The first four leadership competency dimensions help to explain how successful entrepreneurs apply diverse leadership styles to achieve their goals. The fifth competency dimension, personal, speaks to who becomes an entrepreneur and contributes to the understanding of the motivational aspects of becoming a successful entrepreneur (Lukovszki, 2011).

The five competency dimensions are strongly related to the findings of Tittel and Terzidis (2020), who created an entrepreneurial competence framework with three main categories: domain, personal and relationship. The domain competence includes opportunity, organisation and management. The five dimensions of this study mainly differ in that, compared to the three-component model of Tittel and Terzidis, the social (relationship) or personal competency groups are as important as imagination (opportunity recognition), execution (management) and organisation from the point of the entrepreneurial challenge of view. Tittel and Terzidis (2020) provided an in-depth view of entrepreneurial competency research from an entrepreneurial process point of view. The novelty of my research lies in that my primary focus is analysing entrepreneurial competencies from a leadership perspective.

This leadership perspective allowed me to establish four entrepreneurial leadership styles: Lone Wolf, Team Builder, Explorer and Architect. Besides identifying the four leadership styles, there are other take-aways from the results of the hierarchical cluster analysis. The analysis reconfirms the notion of the balanced and multi-dimensional competency requirements of successful leaders. The analysis did not reveal one- or two-dimensional leadership styles. Successful leadership styles assume all leadership competencies, but the difference between styles lies in each competency dimension’s weights and when and how often the leader uses them (Peterson et al., 2020).

Two styles – Lone Wolves and Team Builders – reflect the classical relationship-task approach from the Blake Mouton managerial grid or the Hersey-Blanchard contin-
ergency model (Bakacsi, 2006; Johansen, 1990). This notion is also reflected in recent research establishing three mindsets (Subramaniam & Shankar, 2020), of which two are purpose and people oriented. The third mindset, “Experimenting and risk-taking,” connects to the Explorer leadership style. The Architect leadership style expands the current view on entrepreneurial competencies and leadership styles, so that, as ventures grow, entrepreneurs must adjust their competencies, and building learning organisations become increasingly important. Entrepreneurship is a role that individuals undertake to create organisations, and entrepreneurial activity has been related to organisational leadership (Bjerke & Hultman, 2003; Carton et al., 2004; Gartner, 1988; Puga et al., 2010). Architects perform best in exactly that role. Some argue it is the essential role of an entrepreneur to create an organisation to build a sustainable business (MacMillan & McGrath, 2000). Entrepreneurs face organisational challenges even at early stages as “entrepreneurial leaders focus on enacting an entirely emergent organisational task and a transaction set to accomplish the task” (Gupta et al., 2004).

I applied the four leadership styles to the protagonists of the case studies used to build the case survey database. It is interesting to see the style-typing exercise in action. I was able to detect the main leadership styles of the marquee entrepreneurs (Table 7), so this paper offers a tool and methodology to identify the entrepreneurial leadership style of individuals.

### Table 7

<table>
<thead>
<tr>
<th>Entrepreneur</th>
<th>Business</th>
<th>Country</th>
<th>Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bert Twaalfhoven</td>
<td>Indivers</td>
<td>Holland</td>
<td>Team Builder</td>
</tr>
<tr>
<td>Jeff Bezos</td>
<td>Amazon</td>
<td>USA</td>
<td>Architect</td>
</tr>
<tr>
<td>Coco Chanel</td>
<td>Chanel</td>
<td>France</td>
<td>Lone Wolf</td>
</tr>
<tr>
<td>Dean Kamen</td>
<td>Auto Syringe, Segway</td>
<td>USA</td>
<td>Architect</td>
</tr>
<tr>
<td>Bill Gates</td>
<td>Microsoft</td>
<td>USA</td>
<td>Architect</td>
</tr>
<tr>
<td>Phil Graham</td>
<td>The Washington Post Co.</td>
<td>USA</td>
<td>Team Builder</td>
</tr>
<tr>
<td>Howard Schultz</td>
<td>Starbucks</td>
<td>USA</td>
<td>Explorer</td>
</tr>
<tr>
<td>Iwasaki Yataro</td>
<td>Mitsubishi</td>
<td>Japan</td>
<td>Team Builder</td>
</tr>
<tr>
<td>Hudácskó Járos</td>
<td>Hangavári Winery</td>
<td>Hungary</td>
<td>Explorer</td>
</tr>
<tr>
<td>Hudácskó Katalin</td>
<td>Hangavári Winery</td>
<td>Hungary</td>
<td>Team Builder</td>
</tr>
<tr>
<td>Jack Ma</td>
<td>Ali Baba</td>
<td>China</td>
<td>Explorer</td>
</tr>
<tr>
<td>Steve Jobs</td>
<td>Apple</td>
<td>USA</td>
<td>Team Builder</td>
</tr>
<tr>
<td>Bill Bowerman</td>
<td>Nike</td>
<td>USA</td>
<td>Lone Wolf</td>
</tr>
<tr>
<td>Phil Knight</td>
<td>Nike</td>
<td>USA</td>
<td>Architect</td>
</tr>
<tr>
<td>Elon Musk</td>
<td>Tesla, SpaceX</td>
<td>USA</td>
<td>Explorer</td>
</tr>
<tr>
<td>Vinod Kapur</td>
<td>Keggfarms</td>
<td>India</td>
<td>Architect</td>
</tr>
<tr>
<td>Wilhelm Siemens</td>
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<td>Lone Wolf</td>
</tr>
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</tr>
<tr>
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<td>Architect</td>
</tr>
<tr>
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<td>Explorer</td>
</tr>
<tr>
<td>Mark Zuckerberg</td>
<td>Facebook</td>
<td>USA</td>
<td>Architect</td>
</tr>
</tbody>
</table>

Source: Own analysis

### Snapshot of contemporary leadership models and entrepreneurial leadership

Looking at the results of this study on entrepreneurial leadership considering contemporary leadership models, we can arrive to some noteworthy findings. Charismatic leadership has an effect on entrepreneurial activity, which turns out to be greater than that of other leadership types (Felix et al., 2019). Reflecting on the list of the most critical competencies, we can infer that they relate to the leadership competencies of (neo)-charismatic leaders, which creates devotion between followers and the organisational vision (Bakacsi, 2019). This is precisely what entrepreneurial leaders do with competencies like setting goals, setting vision, inspiring and motivating others, engaging people, thinking strategically and being decisive and result-oriented. Some properties are not shared by neo-charismatic and entrepreneurial leadership, including the excellence orientation of neo-charismatic leaders or the outstanding ambition of entrepreneurs (Gupta et al., 2004).

A few of the vital entrepreneurial competencies align with the characterisation of authentic leaders such as being value driven (Lee et al., 2020). However, when we consider the list of counterproductive entrepreneurial leadership competencies (maintain work-life balance, ethical, patient, compassionate, caring, tolerant), they are in direct contrast with authentic leadership. On the same note, being trustworthy and honest are important attributes of val-
ue-based leadership, but are not necessarily aligned with entrepreneurial leadership (Gupta et al., 2004). Authors on authentic leadership have suggested a long development process (Cserháti et al., 2021) during which leaders mature (Bakacsi, 2019) and become authentic leaders. This research does not aim to explain this phenomenon in detail. It offers an interesting direction for future research on the leadership maturation process, employing research that considers different life stages of entrepreneurs and their ventures.

Conclusion

This paper addresses the research gap on entrepreneurial leadership style. It presents a model of entrepreneurial leadership applying leadership competencies that identifies four styles based on five leadership dimensions. All four leadership styles assume a diversified competency set and confirm the notion that entrepreneurs need to apply a diverse set of competencies to achieve their goals and build prosperous long-lasting businesses. Finding the right partner(s) with complementary sets of leadership competencies and building an entrepreneurial leadership team is crucial for successful entrepreneurship. The African proverb “If you want to go fast, go alone! But if you want to go far, go together” (Odoi-Atsem, 2018) has a valid message for the present and future generations of entrepreneurs.

This is the third paper presenting the results of a multi-step research programme and applied a new research methodology using the case survey method. The literature review confirmed the already identified five entrepreneurial leadership dimensions, but updated their definition. It also updated the list of most important competencies and introduced the notion of counterproductive competencies. As the most significant result, the new methodology was not only able to verify the leadership styles of Lone Wolf, Team Builder and Explorer, but completed the picture by introducing the fourth style, the Architect. This paper also offered a new tool for identifying the leadership style of entrepreneurs. After establishing a theoretical model for entrepreneurial leadership styles, future research could concentrate on the potential situational nature of entrepreneurial leadership. A critical research question would be whether entrepreneurial leadership is situational and what the contingency variables are. It would be interesting to study if and how successful entrepreneurs change their leadership style and the patterns that may appear in this adaptation process.

References


Online annexe to the manuscript: “The Four Leadership Styles of Entrepreneurs: A Competency-based Model for Entrepreneurial Leadership”

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</tr>
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Source: Own analysis

Online Annexe-2: Case studies coded in the case survey method


Farhoomand, A. (2010). Alibaba’s Jack Ma: Rise of the new Chinese entrepreneur (Case Study No. HKU913). Hong Kong: Asia Case Research Centre, University of Hong Kong.


Greenstein, S., Iansiti, M., & Snively, C. (2015). Face-