HUMAN DIMENSION OF START-UP

Abstract. Start-up is a young and very small enterprise which staffing and human relationships are different from the internal environment of larger enterprises. Research has therefore focused on founders/leaders of start-ups and relationships inside start-up teams. The result of the research is the basic personal characteristics of the leading people (age, education, reasons for entering the business and others), the quality of their leadership and the quality of teamwork. Since a start-up is developing vigorously, leadership and teamsmanship are monitored on the base of business idea development and investment cycle. Start-up founders are better leaders than managers, teams are better at handling extraordinary situations than standard operation, quality of leadership is situationally conditioned to a certain extent by start-up development phase. Start-ups contain contradictions with significant asymmetry, which are the expression of their limited strengths and considerable weaknesses. The lack of living and work experiences is substituted by the enthusiasm, the diligence and the sense of teamwork that have their limits, and therefore the solution is to professionalize the start-up in in the later stages of its development.

Keywords: start-up, founder, leadership, team, Slovakia.

JEL Classification M10, G24

Formulas: 0; fig.: 0; tabl.: 5; bibl.: 31.
Introduction. Start-ups are young and dynamically growing enterprises, which are expected to demonstrate rapid or even exponential growth and to bring high return on invested funds in a relatively short time, so their business is usually based on innovations, improvement of technologies and transforming them into consumer applications. Leadership and especially teams are considered to be serious factors for the existence and success of the start-up, but we know little about their nature and their attributes.

Butler (2017) highlights the central role of an entrepreneurial leader in setting up and developing an enterprise and his/her ability to see more opportunities than others. Bussgang (2017) writes that the start-upper must think as the owner, invest emotions, shape the mission, experience an adventure and take care of all aspects of the enterprise. The bad composition of the team (23 % of the causes), the inconsistency between the team and the investor (13 % of the causes), the lack of passion (9 % of the causes) are serious reasons for the start-up failure (www.cbinsights.com), and therefore the condition of a success for every new business making is the question of Thiel (2014, p. 153) as well: Do you have the right team? A quality team is the criterion (Prieskum slovenského startup ekosystému, 2014, p. 30), which most attracts the interest of bigger and more established enterprises to support start-ups.

Zäch and Baldegger (2017) dealt with the impact of leadership behaviour on start-up performance. They found that transformational leadership had a significant positive effect on start-up performance. Baldegger and Gast (2016), in turn, examined how the founder’s conduct changed during the development of the newly established enterprise. For their most important knowledge, the change of more transformational leadership to more transactional is considered.

Start-Ups, Founders / Leaders and Teams. Thiel (2014, p. 10) considers a start-up particularly as the association of people: «The start-ups operate under the principle that you need to work with others to prove anything, but you need to stay small enough to really achieve it». Recognized business matadors Blank and Dorf (2012, p. XVII) describe a start-up more formally: «The start-up is a temporary organization to find scalable, replicable and profitable business model». Ries (2011, p. 27), who introduced himself to the world of business with the concept of a
lean start-up, defines: «Start-up is a human institution designed to create a new product or service under conditions of extreme uncertainty». He chose the concept of institution because a start-up hires creative people, coordinates their activities and shapes a corporate culture that delivers results. Start-up distinguishes from the current SME according to Sobeková Májková (2015) a unique and innovative product with the potential of a dynamic and global growth, assuming the revenue of tens of millions of euros. Star-up is also a modern cultural and business phenomenon that is less formal than a normal company, however not without rules.

Leadership is particularly evident in start-ups in the early stages of its life cycle. It is usually an individual with leadership and visionary abilities who identifies business opportunity in the external environment and then establishes a new firm. Although start-ups are often based by team of people, a formal leader is appointed in many teams (Ensley et al., 2006; Kordos, 2019). Leader in the beginning of start-up business making formulates a vision, sets initial objectives, obtains the necessary resources and influences stakeholders. Baum et al. (1998) assert that «the role of the leader as a start-up founder’s is to create vision of a new company and to influence others to buy his dreams». According to Bryant (2004) «leaders in starting companies must obtain extraordinary commitment and involvement of their staff in order to their start-up could thrive in implementing an innovative and highly unexplored business intent».

While a vertical leadership depends on the wisdom of the leader, team leadership draws on the ideas and knowledge of the whole team. Team leadership is therefore based on cooperation of a group. Pearce and Sims (2002) found that «the application of team leadership enables companies to achieve better results compared to vertical leadership».

Academics and investors perceive the quality of human resources as an important investment criterion. Burns (2014, p. 66) evaluates business ideas and one of criteria are managerial skills. Business Angels Club of Slovakia (www.bussinessangels.sk) endorses innovative ideas only, if an entrepreneur describes, among other criteria, a structure of a realization team. Investment club G4 (www.g4.sk) requires the investment applicant to present his / her team. Credo Ventures (www.credoventures.com) looks for businessmen who have a vision to exceed regional borders and build global companies. Institutional investors Arca Capital (www.arcacapital.com) and Genesis Capital (www.genesis.cz) consider an experienced and determined management team to be the important investment criterion.

Kiska junior from Credo Ventures (2014) writes that it is very difficult to explain a process of investment opportunities evaluation, however, the key criterion of a choice is very subjective. It is a team and its ability to act. Truban (2015) is Slovak entrepreneur in the IT industry, who recommends to convince an investor with the super team from who depends everything else.

**Goal, Research Sample and Research Methods.** It is believed that an important condition of successful start-up and its transformation into an enterprise that earns are its people. The object of research is personal data on the founders and quality of leaders and teams. Quality of leaders and teams is measured cross-sectionally according to particular traits and then in summary at each stage of the start-up progress cycle. The goal of research is to produce new knowledge about the human dimension of start-up as an attractive, but so far largely an unexplored business form.

**Research sample and data collection.** The content of the article is the processing and interpretation of the survey results, which took place on a sample of 76 start-ups. The sample was prepared on the base of consultation with investors and representatives of co-working centres, incubators and accelerators. The survey was carried out in the first half of 2016 and the sample consists of start-ups operating in the territory of Bratislava, where the largest start-up community in Slovakia is concentrated. Estimates of some governmental materials (Koncepcia..., 2016) state that there are about 600 start-ups in Slovakia. The Startitup portal (www.startitup.sk) shows 301 start-ups. However, these figures are not based on official statistics, which does not record start-ups as a special category. According to the authors of the article, about half of all start-ups in Slovakia are concentrated in Bratislava and its surroundings.

Each start-up was examined by one member of the research team who personally recorded responses to closed and open questions in the questionnaire in a controlled interview with the
leading person and immediately explained any uncertainties. In this article, only the closed questions are reported and processed in the table form.

**Examined traits.** Personnel identification of the leading person and team includes the age, education, the duration of the founder’s employment before establishing the start-up, the size of the team and the start-up duration (Table 1). The concept of vertical and horizontal leadership was chosen to describe and analyse leadership and teamwork. Quality of leader/vertical leadership is expressed by four traits (Table 2) and quality of teamwork/ horizontal leadership is expressed by seven traits (Table 3). The bipolar interval scale (Gavora, 2012, p. 63) was used to measure leader and team traits. Rating 1 on a 5-point scale means «minimal quality» and rating 5 means "excellent quality". The quality of the leader, teamwork, and quality of team relationships are measured on a scale: 1 — minimal, 2 — low 3 — sufficient (however it could be better), 4 — satisfying (but there are still some reserves), 5 — excellent.

#### Table 1

<table>
<thead>
<tr>
<th>Personal identification of leading person and team</th>
<th>Mean</th>
<th>Median</th>
<th>Stdev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>2.33</td>
<td>2.00</td>
<td>0.93</td>
</tr>
<tr>
<td>Education</td>
<td>3.86</td>
<td>4.00</td>
<td>0.59</td>
</tr>
<tr>
<td>Length of employment before the commencement of business</td>
<td>2.53</td>
<td>2.00</td>
<td>0.99</td>
</tr>
<tr>
<td>The number of team members (people)</td>
<td>5.89</td>
<td>6.00</td>
<td>2.38</td>
</tr>
<tr>
<td>Start-up duration (years)</td>
<td>1.88</td>
<td>1.50</td>
<td>1.86</td>
</tr>
</tbody>
</table>

Age: 1 — 18—25 years, 2 — 26—30 years, 3 — 31—35 years, 4 — 36—40 years, 5 — over 41 years
Education: 1 — elementary, 2 — secondary, 3 — secondary with A level, 4 — university 2nd grade, 5 — higher education 3rd grade
Length of practice (employment) before starting a business: 1 — none, 2 — up to 5 years, 3 — up to 10 years, 4 — up to 15 years, 5 — 15 years and over

#### Table 2

<table>
<thead>
<tr>
<th>Quality of leader</th>
<th>Mean</th>
<th>Modus</th>
<th>Median</th>
<th>Stdev</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality of the team leader as creator of the original and attractive vision — visionary</td>
<td>4.15</td>
<td>5</td>
<td>4</td>
<td>1.22</td>
</tr>
<tr>
<td>2. Quality of leader ability to inspire/captivate/motivate other team members — inspirer and motivator/sponsor</td>
<td>4.10</td>
<td>5</td>
<td>4</td>
<td>1.27</td>
</tr>
<tr>
<td>3. The quality of leader ability to encourage other team members in case of any problems/complications/failure — agitator</td>
<td>3.93</td>
<td>4</td>
<td>4</td>
<td>1.25</td>
</tr>
<tr>
<td>4. Quality of leader ability to develop competence of fellows (their training, coaching, mentoring) — mentor and coach</td>
<td>3.58</td>
<td>4</td>
<td>4</td>
<td>1.24</td>
</tr>
</tbody>
</table>

#### Table 3

<table>
<thead>
<tr>
<th>Quality of start-up team</th>
<th>Mean</th>
<th>Modus</th>
<th>Median</th>
<th>Stdev</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The level of cohesion of team members and their resistance to unpleasant, unforeseen and crises event</td>
<td>4.00</td>
<td>4</td>
<td>4</td>
<td>1.24</td>
</tr>
<tr>
<td>2. Mutual support and trust of team members in an awkward, unforeseen and crises events</td>
<td>4.05</td>
<td>5</td>
<td>4</td>
<td>1.24</td>
</tr>
<tr>
<td>3. The level of formal division of labour in the team. The formal division of job responsibilities.</td>
<td>3.83</td>
<td>5</td>
<td>4</td>
<td>1.37</td>
</tr>
<tr>
<td>4. The level of cooperation among team members</td>
<td>3.91</td>
<td>4</td>
<td>4</td>
<td>1.33</td>
</tr>
<tr>
<td>5. The level of creativity and unconventionality of team members</td>
<td>3.90</td>
<td>4</td>
<td>4</td>
<td>1.33</td>
</tr>
<tr>
<td>7. The level of personal initiative and range of contribution of team members to the overall result</td>
<td>3.84</td>
<td>5</td>
<td>4</td>
<td>1.41</td>
</tr>
</tbody>
</table>

The quality of leadership and team are also studied in relation to the stages of start-up development, which are recorded on the scale of business idea development (Slávik et al., 2015, p. 51): 1 — idea/concept/research, 2 — product development, 3 — product prototype/testing, 4 — minimum viable product/first incomes, 5 — validated product/rising incomes and the scale of
start-up funding cycle (investment cycle) (Slávik et al., 2015, p. 52): 1 — seed capital (angelic stage, an idea, no product), 2 — starting capital (seed phase, work on product, ready/realized prototype, detecting an interest in the product), 3 — capital for initial development and further growth (series A/B phase, 1st, 2nd round, investment in a company that has already customers, generating revenues), 4 — venture capital (3rd round, mezzanine capital), 5 — IPO (public market).

The analytical procedure consists of descriptive statistics describing leadership and teamwork traits through average values (mean, modus, median) and standard deviation. It provides both a more detailed and summarizing image of the basic traits of leadership (vertical leadership) and teamwork (horizontal leadership). The human dimension is examined in both static and dynamic image. Individual leadership and teamsmanship features are examined on the basis of the entire sample and are expressed by means of average, median, and standard deviation (static image). However, start-ups are occurred in different phases of development, and therefore the quality of leadership and teamwork is investigated on the basis of the sample that is divided into individual developmental phases (dynamic image). The development of an entrepreneurial idea reflects the position of the founder/entrepreneur, and the start-up financing reflects more the investor’s position and therefore the business and investment cycle of the start-up development can bring different results. Leadership and teamsmanship in a dynamic image are not being decomposed on individual features, so that the resultant image cannot be fragmented and therefore less convincing given the number of developmental phases and sample size.

Research Results. Age of leading start-up person is between 26—30 years. Education of leading person is upper secondary up to university of the second degree. Amongst start-uppers there is dominating education from business economics and management (it lacks knowledge on industry and technology) or IT (it lacks knowledge on economics, business economics, management and marketing); missing expertise can be substituted by enthusiasm partially only. Length of employment before the commencement of business making is from 5 to 10 years, mean value is about 7.5 years. The number of team members is 5.9 and the duration of a start-up is almost two years (see Table 1). Start-ups are young due to age of their founders and leaders.

Start-uppers are educated and have several years of practical experience from their previous jobs. Start-ups are a small due to number of their members or employees. They do not have a traditional hierarchy and horizontal relationships dominate inside them. New ideas are thriving in an environment without directives, strict superiority and formal rules. The winner becomes the author of the best idea and not the one who fulfils a task orderly. The youth provides start-ups freedom, independence and unconventionality (Pukala et al., 2018). They do not feel the burden of tradition, they do not respect the authorities they do not have predominantly existential responsibilities and obligations towards their own family.

The cause and incentive for the inception of business idea was most often an existence of a particular problem. The founders have noticed, or directly felt an existence of a problem that is specific and affects a particular group of people. This reason was indicated by 37.5 % of start-ups. The second most common reason is an existence of a general problem or a problem concerning a large closer unspecified group of people. The solution of this problem is usable for a larger group than in the first case. The reason of this kind was stated by 22.2 % of start-ups. Improvements of an existing solution as an incentive for business idea were stated by 16.7 % of founders. They saw an opportunity in adapting or improving an existing product, e. g. transmission of solution from abroad on the Slovak market and its adaptation to local conditions. Other reasons were identification of gaps in the market, the emergence of the idea while working on another project, the use of academic research and attempt to apply it in practice.

The founders of start-ups (37.5 %) decided to enter the business because they did not comply with the employment relationship and wanted to be independent. Another start-up people (30.5 %) wanted to be self-realized and work on something their own. Other start-up people (18.05 %) stated that they were motivated to the entry into the business by a specific project, a faith in its success and an effort to seize the opportunity.
Quality of a leader (see Table 2) in the surveyed start-ups is satisfactory (but there are still reserves) or satisfactory (but could be better). Leaders have identified themselves with their task and have got about themselves rather high opinion. The differences between the parameters of leadership are very mild, but still indicate that leaders are better in some attribute, or more distinctive and they lack something in other attribute. Leaders are able to create an original and attractive, but not absolutely superior vision. They can inspire their nearest surroundings on the similar level so that fellows can follow the determined vision and goals. Leaders encourage other team members when a start-up gets into trouble, complications and experiences a failure. Their agitation in the oppressive situation is only slightly behind the level of visionary and acceptance of vision by other team members. Relatively the weakest aspect of leadership is to develop a competence of collaborators. From a comprehensive view of Table 2 there is obvious that the leaders of surveyed start-ups are considered themselves above average, self-confident and effective leaders.

Start-uppers are egocentric leaders, they can dream, inspire, agitate, encourage, but they are less able to help their subordinates, co-workers and followers. Again, the youth, an inexperience play a certain role, and hence also the lack of specific and top-notch expertise.

Integrity and cooperativity of the team (see Table 3) is eye-catching condition for success of a start-up. It was identified in range from 4.05 (satisfactory, but there are still reserves) to 3.71 (over average satisfactory), thus only one third of the evaluation point. The quality of the team is high, even though there are differences, which indicate that the studied teams are performing better in borderline, unpleasant and crises events and team members are willing to cooperate, but teams are resulting in a bit weaker when quality of individual members is evaluated, for example their personal initiative and individual work contribution, formal division of labour in a team and informal division of roles.

It seems, that the quality of the teams reflects to a large extent the quality of leadership. Teams are capable to exert the maximum and extraordinary performance as a whole, they are excellent in managing critical situations, but their work is of lesser quality in the execution of everyday, routine duties, standard and repetitive work.

The quality of leadership from the first phase of the business idea and the first phase of funding is declining slightly, but evidently until the third phase, where the prototype is put together and capital is being collected for initial development and growth (Table 4). The third phase in both cycles is some kind of test, or hour of truth, because the idea is being materialized, it receives specific parameters and usefulness, it becomes a real product or service and now requires considerable financial resources which must prove a return. After this phase a quality/self-esteem of leaders increases. A similar trend is visible in the quality of the team (Table 5).

### Table 4

<table>
<thead>
<tr>
<th>Business idea development</th>
<th>Number of start-ups</th>
<th>Leadership Mean</th>
<th>Team Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. idea</td>
<td>3</td>
<td>4.58</td>
<td>4.52</td>
</tr>
<tr>
<td>2. development</td>
<td>8</td>
<td>4.18</td>
<td>4.16</td>
</tr>
<tr>
<td>3. prototype</td>
<td>20</td>
<td>3.97</td>
<td>4.04</td>
</tr>
<tr>
<td>4. first incomes</td>
<td>26</td>
<td>4.17</td>
<td>4.07</td>
</tr>
<tr>
<td>5. growing incomes</td>
<td>19</td>
<td>4.38</td>
<td>4.40</td>
</tr>
</tbody>
</table>

### Table 5

<table>
<thead>
<tr>
<th>Funding cycle</th>
<th>Number of start-ups</th>
<th>Leadership Mean</th>
<th>Team mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. pre-starting capital</td>
<td>9</td>
<td>4.44</td>
<td>4.14</td>
</tr>
<tr>
<td>2. starting capital</td>
<td>36</td>
<td>4.16</td>
<td>4.26</td>
</tr>
<tr>
<td>3. capital for initial development and growth</td>
<td>27</td>
<td>4.11</td>
<td>4.07</td>
</tr>
<tr>
<td>4. venture capital</td>
<td>3</td>
<td>4.5</td>
<td>4.29</td>
</tr>
<tr>
<td>5. IPO</td>
<td>1</td>
<td>5</td>
<td>4.47</td>
</tr>
</tbody>
</table>
Discussion. 1. Start-ups are young, small, educated, inexperienced and informal. There is no respected business tradition in Slovakia, and therefore young people enter this kind of business making they have unrealistic ideas about business, exaggerated ambitions and self-confidence. They perceive a business as an adventure, but they are not well prepared to make it. Start-ups are young because modern European and Slovak society is penetrated by youth syndrome, a higher age is considered to be the symptom and cause of conservatism and the inability to cope with new trends. In advanced countries, an applicant is entering business in middle-age with more experience in doing business. The study about American start-ups (www.kauffman.org) has shown that the founder of the technology enterprise is 39 years old in average, 92 % of the founders have graduated the first degree of university and 32 % completed the second degree. The average age of start-up founders in Israel (www.touchit.sk) is 34 years.

2. The perception of the start-up to the existence of the problem, the shortcomings and unmet needs in its surroundings and the effort to improve existing products and to better meet existing needs. Start-uppers know to observe well consumer reality, but are less receptive to non-existent, respectively invisible problems, they can better observe than make something completely new. The cause is obviously the local and technocratic perception of the world, the inability to perceive the world through the eyes of the global consumer, the preference and the enchantment with technical solutions, the excessive respect for the convention, the escape of extraordinary talents abroad. Butler (2017) writes, entrepreneurs are curious seekers, they are comfortable with risky situations they like to set up various initiatives and are natural traders. Bussgang (2017) observed that good start-up adepts are well versed in uncertainty, crossing conventions and thinking as founders or authors.

3. Reasons for entering a business: strong personal motivation and internal needs. The situational and psychological reasons identified by Burns (2014, p. 10) are suitable for ordinary small companies that do not require extraordinary visions. Studied founders show a strong desire to own and self-actualize themselves what qualifies them to establish a start-up but it is inconsistent with their ability to achieve superior creative performance, as is evident from previous findings. The consequence of this knowledge is that a strong interest in start-up businesses making may not be accompanied by equally strong prerequisites for achieving top-notch result.

4. Quality of leaders — above average vision, but not excellent or top, self-confident leaders, good in crisis, less good in standard operation, weaker care for the development of co-workers. Start-ups are established mainly by enthusiasts without any experiences or with little experiences about business operations. They are focused on the product, they are interested in the product, but they know the operating processes in small extent. Self-confident leaders reached only the second of five leadership levels formulated by Collins (2005).

5. Quality of team — extraordinary situations are managed better than standard operation, team as a whole is better than individual members. Teams handle extraordinary situations with enthusiasm, however, they need to have the experiences and business practice for servicing routine operation, but they lack these competencies. The difference between team performance and individual performance lies in the synergistic effect of team work and confirms its sense and purpose. Of course, enthusiasm and teamsmanship do not have an unlimited effect, so the solution lies in professionalizing the start-up.

6. The third phase — the lowest level of leadership and team quality, although at this phase a prototype is being built and there is a need for a larger volume of capital from which returns are expected. Leadership and team are some slightly unstable phenomena. They are conditioned not only by the internal quality of leaders and teams, but also by outside circumstances, and therefore situationally conditioned. The situational impact is slightly more apparent (the differences between phases) in the business than the investment cycle, probably because the business results have a faster feedback and influence on the leaders and team than the consequences of the investment.

Conclusion. Start-ups contain contradictions with significant asymmetry, which are the expression of their limited strengths and considerable weaknesses. The strengths reside mainly in the business idea and weaknesses in the lack of complementary resources for its implementation.
The human dimension of start-up needs to develop practical experiences considering business making and business management and to acquire knowledge about business operation, business processes and human resources management. The unpopular consequence of solution to the asymmetry between modest internal resources and almost unlimited external resources is usually the division of the impact on a start-up among additional owners who will supply complementary resources or the emergence of commitments towards other suppliers of missing resources.

Realized research has shown some concrete contradictions in the human dimension of start-ups. Some of them can be overcome by external support and acquiring internal experience, others can be respected only for deep understanding on start-up operation:

1. Self-confidence, ambitions, youth versus inexperience, disillusion, failure, disappointment.
2. Noticing versus creativity at formulation of a business idea.
3. Entry into business as self-realization versus a necessity as a consequences of the living circumstances.
4. Excellent leaders versus weaker managers.
5. Managing extraordinary situations versus weaker routine operation.
6. Weaker expert versus excellent team player.
7. Decrease and increase in quality of leadership and teamwork.

Start-ups do not need to be taught, new knowledge may be made available to them, but concurrently they are provided with free and fair development, otherwise they are jeopardized the most valuable assets they possess. These are enthusiasm, unconventionality, creativity. On the other hand, start-ups can be offered an assistance and support, but according to their needs, will and possibilities.

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24. www.g4.sk. URL: http://www.g4.sk/startup (Date of Access: March 5, 2017).

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References

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