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# HOW DOES SERVANT LEADERSHIP INCREASE THE COMPETITIVENESS OF STARTUP TEAMS? THE MEDIATING ROLE OF EMPLOYEES' SELF-EFFICACY

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**Purpose**—The purpose of this study is to examine the effect of servant leadership on competitiveness of startups. Also, the role of self-efficacy as a mediator between servant leadership and competitiveness has been explored.

**Design/methodology/approach**—Servant leadership, competitiveness and self-efficacy were evaluated in an empirical study based on a sample of 220 employees of Iranian start-up companies.

The data analysis was performed through a two-stage partial least squares structural equation modeling technique. In the first stage, the measurement models were examined in terms of construct validity and reliability, while in the second stage, the structural model and research hypotheses were tested.

**Findings**—The results demonstrated that servant leadership positively affects competitiveness. Also, as expected, self-efficacy act as a mediating variable between servant leadership and competitiveness.

**Practical implications**—Start-ups nowadays constitute a large portion of countries' financial turnover and economy. Considering the sharp increase in competitiveness and instability in the market, start-ups with transformational leadership are more likely to succeed. However, other styles, such as servant leadership, could play an essential role in guiding these startup companies on the way of competitiveness by strengthening employees' empowerment and self-efficacy.

**Originality/value**—It is believed that the important contribution of this study is demonstrating the effects of servant leadership on competitiveness of startups. Also, the mediating role of self-efficacy in this relationship has been strongly confirmed.

Keywords: Servant leadership	; self-efficacy;	competitiveness;	start-up

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## Introduction

Today, entrepreneurial activities are increasing, and start-ups are growing faster (Prohorovs et al., 2019). Start-ups are important for society because they help remove social problems such as income inequality and poverty (De Winne and Sels, 2010; Thirlwall, 2012). However, start-ups face challenges for their survival because their failure rate varies between 50% and 95% (Kee et al., 2019). The absence of demand for a specific product is one of the most common reasons for start-up failure (Prohorovs et al., 2019). Considering the increasing emergence of competitors in the market, competitiveness is an essential factor for success in a start-up (Prohorovs et al., 2019; Shahriari et al., 2022). A start-up must be able to compete with other companies to maintain their position or grow. Company competitiveness relates to the continuous presence in the markets, profitability, and the ability to adapt production with demand and environmental changes (Díaz-Chao et al., 2016). Numerous factors can affect a company's competitiveness and, therefore, its success; for example, the ability to create a fundamental team and effective leading it in the start-up is of great importance (Eisenmann et al., 2017). Moreover, the team's ability to work in an uncertain environment, limit constraints, and be creative in solving problems are important in the start-up (Bussgang, 2017). Although start-ups' success depends on understanding consumers' unsatisfied needs and offering solutions through a collection of good products, the leader's ability to promote his company also has an important role in the success of these startup companies (Mishra, 2016; Poulin et al., 2007). One of most important factors in the success in the initial stages is leadership skills (Anderson and Sun, 2017; Sudek, 2006). The leadership is the key to success in a start-up (Saura et al., 2019) and a fundamental factor for successful investment development (Cogliser and Brigham, 2004). Therefore, the establishment and development of start-ups are inevitably related to leadership, but few studies have examined it (Zaech and Baldegger, 2017). Leadership style could affect business performance and the result of the competition. The literature confirms that some leadership styles, especially transformational leadership, affect the start-ups' atmosphere (Vargas, 2015). Moreover, most hopeful, optimistic, and flexible leaders in start-ups are transformational (Peterson et al., 2009); however, considering the characteristics of a transformational leader, many entrepreneurs or start-up leaders lack the characteristics of a transformational leader, which could lead to flaws in the start-up and make it difficult for the start-up to move toward competitiveness. Such start-ups may be able to avoid failure by creating competitiveness by using styles other than transformational leadership. This study seeks to answer the question of whether servant leadership can play this role or not. Servant leadership style has been considered by researchers in the field of management in recent years. Servant leadership differs from popular leadership styles in many ways because servant leaders act in the best interests of their employees and are concerned with the success of all organizational stakeholders, and include an ethical component (Walumbwa *et al.*, 2010). Servant leadership is an approach to leadership that emphasizes the ethical behaviors of leaders (Van Dierendonck and Nuijten, 2011). This approach is different from other leadership theories, such as charismatic and transformational leadership (Spoelstra, 2019).

Considering that servant leaders are concerned about their employees' self-improvement, they allow them to develop new skills by interacting with the organization and create a capable team of human resources by forming self-efficacy (Van Dierendonck and Nuijten, 2011). Self-efficacy is a variable affecting job performance and outcome. Employees intend to measure and evaluate the information about their perceived abilities before attempting to perform job-related tasks. Selfefficient people set high targets, try harder, and perform more effectively (Gist and Mitchell, 1992). Moreover, individuals who believe in their skills and abilities make sufficient efforts to produce successful results, such as effective job performance (Stajkovic and Luthans, 1998b). In fact, self-efficacy is essential for entrepreneurship (Drnovšek et al., 2010). Therefore, self-efficacy can be one of the components affecting the startup (Dalborg et al., 2015) and its outputs, including competitiveness. On the other hand, servant leadership helps employees reach self-efficacy by enabling them to develop themselves, providing freedom in decision-making in performing tasks, and creating social support (Spears and Lawrence, 2002). Servant leadership and self-efficacy create motivation in individuals (Bande et al., 2016), and this motivation could provide grounds for competitiveness by having a positive effect on performance. Therefore, in this study, the effects of servant leadership on the competitiveness of startup teams will be assessed with the mediating role of self-efficacy and, if confirmed, it could have useful, practical results on start-ups. No studies on the effects of servant leadership on competitiveness were observed in the research literature. Furthermore, the mediating role of self-efficacy is another innovation of this research.

# Research Background and Hypotheses Development

# **Self-efficacy**

Self-efficacy is a personality structure or individual trait which arises from social cognitive theory (Gist and Mitchell, 1992). Self-efficacy is about individuals' belief in their abilities for affecting the events that influence their lives. This main belief is the basis of human motivation, performance enhancement, and emotional well-being (Bandura, 2006). Self-efficacy is defined as one's belief in their abilities

(self-confidence) to stimulate motivation, cognitive resources, and practical steps to successfully perform a particular task in a given context (Chan et al., 2016; Stajkovic and Luthans, 1998a). This remarkable psychological capacity is specially related to today's workplace, because the characteristics of rapid growth and flexibility correspond to the realities of a fast, unpredictable, and complex business environment (Luthans and Youssef, 2007). Perceived self-efficacy argues how hard an individual tries and how long they persevere under challenging situations and the presence of obstacles; therefore, it affects job outcomes (Bandura and Schunk, 1981). Individuals with higher self-efficacy are more confident in their abilities and, therefore, try harder to overcome challenges. In contrast, those with low self-efficacy are skeptical towards their abilities and reduce their efforts or give up on it altogether (Qiu et al., 2020). As a psychological capital, employees' self-efficacy may reflect a valuable personal source, which has encouraged their participation in performance-enhancing activities (De Clercq et al., 2018). In organizational studies literature, many empirical studies have shown that self-efficacy has a significant relationship with employees' performance in the workplace (Carson et al., 2007; Judge et al., 2007). Moreover, Alessandri et al. (2015) concluded that self-efficacy significantly predicts individual job performance. The results of research by Karatepe et al. (2007) showed that self-efficacy is a considerable determinative factor in job performance. Few studies have examined self-efficacy in start-ups. Dessyana and Riyanti (2017) found that entrepreneurial self-efficacy has a significant positive effect on start-ups' success. Hmieleski and Corbett (2008) showed that start-ups with leadership who had higher entrepreneurial self-efficacy tended to grow further when their founders exhibited high improvisational behaviors.

# Servant leadership

Leadership is one of the necessities of performing activities in the organization (Bass and Stogdill, 1990). Leadership style is defined as the way the leader uses his influence and power to achieve his goals. Leadership style should be selected according to organizations, situations, groups, and individuals. Therefore, it is very beneficial to have a comprehensive understanding of different leadership (Amanchukwu *et al.*, 2015). One of the important styles considered by researchers in management is servant leadership. Servant leadership is a style that focuses on the development of those who are guided and served at the same time (Peng and Chen, 2020; Stone *et al.*, 2004). Servant leaders first ensure that the high-priority needs of others are met first, with an inner sense of service to others (Greenleaf, 1982). Servant leaders emphasize serving others and sacrifice personal interests for the benefit of others so that they have more wisdom, authority, and health and become servant leaders themselves (Anderson and Sun, 2017). Given the importance of

servant leadership, more studies have been conducted in this regard in recent years. Bande *et al.* (2016) studied the effects of servant leadership on employees' motivation. Baykal *et al.* (2018) showed that servant leadership positively affects the employees' understanding of empowerment and gratitude, and these emotions, in turn, affect innovation and organizational performance. The findings of Jaiswal and Dhar (2017) also showed that servant leaders build trust in employees that can lead to creativity. This scientific interest in this leadership style led to several studies that describe its dimensions differently (Liden *et al.*, 2015; Sendjaya *et al.*, 2008; Van Dierendonck and Nuijten, 2011). Therefore, selecting the most appropriate scale for the work depends on the specific goals of the study or application (Eva *et al.*, 2019). Based on an analysis of servant leadership literature in 2011 and interviews with servant leaders, these eight aspects were chosen as the best servant leadership indicators, which are as follow (Van Dierendonck and Nuijten, 2011):

Empowerment: it is a motivational concept focused on the individuals' ability and encouraging personal development (Conger, 2000). The servant leader's belief in the natural value of each person is an important factor in empowerment (Greenleaf, 1998).

Accountability: this ensures that people know what is expected of them, which is suitable for both employees and the organization. It is a powerful tool to show the leader's confidence in his followers; it provides boundaries at which one is free to achieve one's goals (Van Dierendonck and Nuijten, 2011).

Standing back: it is the extent to which the leaders prioritize others' needs and provides them with the necessary support and credit. Standing back should be related to most other servant leadership aspects, such as originality, empowerment, humility, and accountability (Van Dierendonck and Nuijten, 2011).

Humility: humility in leadership is to dare admit that he is not innocent and makes mistakes (Morris *et al.*, 2005). Servant leaders accept their limitations and therefore actively seek the contributions of others to overcome those limitations (Van Dierendonck and Nuijten, 2011).

Authenticity: Authenticity is closely related to the expression of "true self", the precise expression of one's internal states, goals, and obligations (Černe *et al.*, 2013; Peterson and Seligman, 2004). The authenticity of a serving leader is manifested in several ways: doing what is promised, the organization's visibility, and honesty (Russell and Stone, 2002).

Courage: Courage is an important characteristic that distinguishes a servant leader from other leaders. In the organizational context, courage is to challenge the conventional patterns of work behaviors (Hernandez, 2008). Courage is related to proactive behavior and is defined as creating new methods (Russell and Stone, 2002).

Interpersonal acceptance: it is defined as the ability to understand others' feelings (George, 2000). In other words, interpersonal acceptance is about empathy. It is vital for servant leaders to create an atmosphere of trust in which people feel accepted (Van Dierendonck and Nuijten, 2011).

Stewardship: it is defined as the tendency to take responsibility for a larger institution and seek service instead of personal control and interests (Hernandez, 2008). Servant leaders regard their followers as those under their care. As trustees, they ensure that their followers and other resources within the organization are responsibly nurtured (Block, 1993).

# Competitiveness

Competitiveness is a multidimensional concept that refers to the ability to create sustainable competitive advantages, which can be used at the national, industrial, and firm. At the firm level, competitiveness is the ability to produce goods and services which create value or are competitive against other companies (Marín et al., 2012). Competitiveness is perceived as the adaptation between the company and its internal competencies with external opportunities and strategy's compliance and adaption with the environment in which the company competes (Shahriari & Mahmoudi-Mesineh, 2021). As a sustainable competitive advantage against competitors, it provides the guarantee and growth of market share and making a profit (Caseiro and Coelho, 2018). Managers may define competitiveness as market share, profitability, and growth. It is apparent that this definition would vary according to different perspectives and the nature of individuals' attitudes toward the performance of a job (Man et al., 2002). Competitiveness is generally introduced as a dependent, independent, or mediating variable, which varies according to the definition of the problem (Waheeduzzaman and Ryans, 1996). Given the importance of competitiveness, Caseiro and Coelho (2018) examined the impact of business intelligence on competitiveness in start-ups mediated by entrepreneurial orientation. They concluded that entrepreneurial orientation positively affects start-ups' competitiveness. Wang and Wu (2012) showed that entrepreneurial sources affect the company's sources in the development phase, and the company's competitiveness affects its sources, competitiveness, and responsibilities of new team members in the development phase. It should be noted that competitiveness is not the same in all spaces (Man et al., 2002). In this research, competitiveness refers to the achievements of companies compared to competitors, and in order to assess the competitiveness of start-ups, six indicators are used (Caseiro and Coelho, 2018). These indicators are as follows: speed of innovation, market response speed, production efficiency, product quality, production flexibility, and research and development capabilities (Caseiro and Coelho, 2018; Wu et al., 2008).

# Servant leadership and competitiveness

In the literature, many studies have assessed leadership and competitiveness. Lin et al. showed that servant leadership has an indirect positive effect on a company's global competition (Ling and Jaw, 2011). According to a study by Gakure et al. (2014), appropriate leadership leads to motivated entrepreneurs and, ultimately, universities' competitiveness. This could be achieved by involving employees in decision-making and providing proper guidance to employees. Moreover, Ireland and Hitt (1999) showed that effective strategic leadership methods could help companies increase their performance while competing in turbulent and unpredictable environments. No study on the effects of servant leadership on competitiveness of start-ups was found in the literature. Stone et al. (2004) concluded that servant leadership could make fundamental changes in organizations; when followers recognize that their leaders genuinely obey servant leadership ideals, they are more likely to serve themselves and increase long-term profitability and success. A servant leader communicates appropriately with their employees and tries to increase their employees' awareness and progress (Van Dierendonck and Nuijten, 2011). Moreover, they create a learning culture between employees by focusing on personal growth of individual (Xie, 2020). Therefore, servant leaders would lead to the development of organizational learning (Choudhary et al., 2013), and organizational learning is recognized as a fundamental element in competitiveness models (Franco and Haase, 2009). When the servant leadership level is higher, the level of service or product quality is also higher (Gocen and Sen, 2020; Qiu et al., 2020). A servant leader provides grounds for empowering his employees (Davenport, 2015; Newman et al., 2018); employee empowerment increases job satisfaction and the quality of services (Ukil, 2016), and higher quality will lead to increased competitiveness (Campos-Soria et al., 2005; Caseiro and Coelho, 2018). The responsibility and empowerment of a servant leader could provide grounds for creativity and innovation, and the speed of innovation is one of the indicators that could measure competitiveness (Caseiro and Coelho, 2018). According to the stated facts, hypothesis 1 is:

**Hypothesis 1:** *Servant leadership affects competitiveness.* 

# Servant leadership and self-efficacy

Leaders can play an important role in increasing employee self-efficacy by clarifying roles and providing social support to subordinates (Chen and Bliese, 2002). Qiu *et al.* (2020) Showed that self-efficacy moderates the relationship between servant leadership and service quality; that is, the level of service quality is higher

when both the perceived level of servant leadership and self-efficacy are higher. Bande et al. (2016) have shown in a study that servant leadership has a positive relationship with salespeople's self-efficacy. Also, Liden et al. (2014) noted that servant leadership seems to be appropriate for strengthening self-esteem and self-efficacy. Yang et al. (2017) found that servant leadership positively affects team effectiveness and creative self-efficacy. Walumbwa et al. (2010) also showed that self-efficacy at the individual level and commitment to the supervisor play a mediating role in the relationship between team-level servant leadership and organizational citizenship behavior. Moreover, the study by Li et al. (2018) showed that general self-efficacy moderates the relationship between servant leadership and the positive effect of the work environment. From the social learning perspective, by improving their self-efficacy, the investment of servant leaders in developing their employees forces the employees to imitate the ethical and social behaviors of their leaders (Peng and Chen, 2020; Spreitzer, 2008). Servant leaders express empathy and compassion for their employees, alleviates the employees' emotional suffering, and reduce anxiety, stress, and depression (Bandura, 2006; Qiu et al., 2020). Therefore, servant leadership is essential in defining and creating a workplace where the employees can enjoy positive emotional health and well-being (Qiu et al., 2020). A servant leader fosters freedom and autonomy between their employees, which makes personal characteristics of self-confidence, self-esteem, and competence in their employees' eyes (Bande et al., 2016) and is closely associated with self-efficacy (Bande et al., 2016; Lee and Ashforth, 1996). A servant leader helps employees achieve self-efficacy by enabling them to develop themselves, giving them freedom of action to decide on their tasks, and creating a social support system (Spears and Lawrence, 2002). On the other hand, servant leaders invest in their employees, train them, and guide them. Besides, they provide opportunities for their employees to acquire new skills (Hayden, 2011; Van Dierendonck and Nuijten, 2011). Servant leaders, by developing and improving their employees' skills, knowledge, and abilities, pay attention to their employees' personal progress, make their employees successful, and thereby increase selfefficacy (Walumbwa et al., 2010). From the perspective of effectiveness theory, the results indicate that encouragement to perform the behaviors of the servant leader leads to strengthening the beliefs of employees' self-efficacy (Yang et al., 2017). Servant leadership empowers people (Van Dierendonck and Nuijten, 2011) and empowered people believe in their ability to succeed and experience a higher level of self-efficacy (Conger and Kanungo, 1988). According to the stated facts, the second hypothesis is stated as follows:

**Hypothesis 2:** Servant leadership affects self-efficacy in start-ups.

# Self-efficacy and competitiveness

So far, no studies on the effects of self-efficacy on competitiveness of start-ups were found; however, according to the stated definition of self-efficacy and the studies reviewed in the literature, analyzing its effects on competitiveness could be of importance. As a personal source, self-efficacy reflects employees' understanding of their capabilities in doing their job tasks (Coeurderoy *et al.*, 2014). Previous studies showed that self-efficacy helps the employees' performance, outcome, and job performance (Alessandri *et al.*, 2015; Judge *et al.*, 2007).

Self-efficacy increases the sense of job responsibility and expectations of successful performance and motivates employees to achieve their goals (Bande et al., 2016). High motivation in employees can lead to competitiveness (Shaban et al., 2017). Employee motivation will improve the quality of products and services (Garvin, 1986), and quality is one of the effective factors in competitiveness (Campos-Soria et al., 2005; Caseiro and Coelho, 2018). Sales researchers have identified self-efficacy as one of the most important individual variables in sales performance models (Jaramillo and Mulki, 2008). When the perceived level of self-efficacy is higher, the level of service quality is higher (Qiu et al., 2020). Creative self-efficacy is positively and directly related to the speed of innovation (Chen and Fan, 2015), and increasing the speed of innovation will lead to increased competitiveness (Caseiro and Coelho, 2018). Self-efficacy is a relatively established part of the psychological capital required for organizational stability and employee confidence (Luthans and Youssef-Morgan, 2017). Self-sufficient employees are more satisfied with their job and duty (Alola et al., 2018), when a person feels he is a member of a group and is satisfied with his participation in the organization, this level of satisfaction is reflected in his commitment to the organization (Kwantes, 2009), and an organization whose employees commit will be more successful in competitiveness (Hanaysha, 2016; Kwantes, 2007). Thus, self-efficacy increases the sense of job responsibility and expectations of successful performance and leads to organizational satisfaction and commitment, which is directly related to organizational profitability and better competitiveness (Hanaysha, 2016). People with high self-efficacy are more confident in their abilities, and therefore, more inclined to do things and work more seriously (Sherer et al., 1982). Employees who are trying their best to achieve maximum results for the organization help more improve the organization's productivity and, as a result, competitiveness (Jawad et al., 2012). The lack of a study that analyzes the direct impact of self-efficacy on competitiveness in start-ups could be a gap in the literature that needs further investigation. Therefore, according to the above, the third hypothesis is:

**Hypothesis 3:** *Self-efficacy affects competitiveness in start-ups.* 

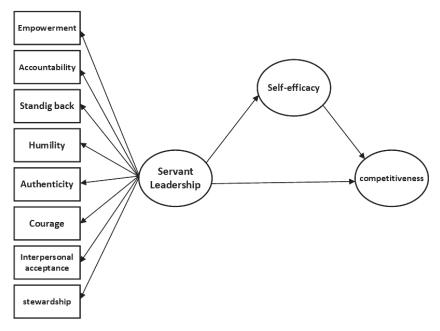


Fig. 1. Conceptual framework.

**Hypothesis 4:** Self-efficacy mediates the relationship between servant leadership and competitiveness.

The structural equation model for conceptual model analysis for the hypotheses proposed for this study is shown in Fig. 1.

## Method

This study was conducted to evaluate the relationship between servant leadership, self-efficacy, and competitiveness of startup teams. The survey participants were employees of Iranian start-ups in a variety of fields, including electrical and electronics industries, healthcare, iron and steel industries, agriculture and food industries, etc. The size of startup teams ranged from as few as 4 employees to more than 10 employees. The structured questionnaire was used to collect data. Data obtained using Google form and printed questionnaire were analyzed through measurement and structural model. SmartPLS was also used to quantify the results.

## Sample

A random sample of employees working in start-ups was selected and invited to participate in this study. The sample was selected based on a random pattern

because in this method, each member of the community has an equal and positive chance to be selected in the sample. In this study, the PLS method has been used to test the model and hypotheses, so the sample size has been determined by the Barclay method. Among the variables, the independent variable of servant leadership and its empowerment dimension with 7 indicators has the highest number of indicators among measurement models; therefore, at least 70 people are needed for sampling. Also, the number of relationships between variables for all three variables of self-efficacy and competitiveness is equal to 2, which is the largest number. Therefore, according to the second rule, the minimum required sample size is equal to 20 people. Finally, by comparing the 20 and 70, the minimum sample size is equal to the largest number, 70. In this study, in order to increase accuracy, a total of 250 questionnaires were distributed, and 220 questionnaires were returned, of which 22 were excluded due to lack of thorough and appropriate answers. Ultimately, the responses of 198 participants were used for analysis. The demographic characteristics of the participants, in terms of age, gender, work experience, and degree of education, are presented in Table 1.

#### Measures

All responses were rated on a five-point Likert scale from strongly disagree to strongly agree.

Table 1. Sample characteristics.

Characteristic	Number	Percentage
Sex		
Female	72	36%
Male	126	64%
Age		
Below 25 years	34	17%
25–40 years	137	69%
Above 40 years	27	14%
Work experience		
Below one year	52	26%
1–3 years	62	31%
Above three years	84	43%
Degree of education		
Associate's degree and below	6	6%
Bachelor's degree	78	44%
Master's degree	108	54%
Doctorate	6	6%

# Servant Leadership

Van Dierendonck and Nuijten's (2011) scale was used to measure servant leadership behavior. That includes 30 items for evaluation and is categorized into eight dimensions: empowerment, accountability, standing back, humility, authenticity and credibility, courage, interpersonal acceptance, and stewardship.

# **Self-Efficacy**

The six-item scale, based on previous studies was used to assess employees' self-efficacy (Luthans *et al.*, 2007). Sample items included 'I feel confident analyzing a long-term problem to find a solution'.

# Competitiveness

Moreover, according to the study of Wu *et al.* (2008), six items are used for evaluating competitiveness: innovation speed, speed of response to the market, production efficiency, product quality, production flexibility, and research and development capabilities.

## **Results**

The PLS software analysis consists of two stages: evaluating the measurement model and assessing the structural model.

#### Measurement model

Given that the measurement model is designed as reflective, its validity and reliability should be evaluated (Roldán & Sánchez-Franco, 2012). The interpersonal acceptance dimension and three others questions were removed from servant leadership due to the low factor loading. The removal of the interpersonal acceptance component shows the higher importance of the other seven dimensions. This may be because it is harder for the manager to forget the mistakes in start-ups due to less work experience. Also, "research and development capability" was removed from the six competitiveness indicators due to the low load, meaning that it is a weak explanatory effect. According to the results of similar studies in start-ups (Caseiro and Coelho, 2018), this may be due to the nature of the companies under study because start-ups do not have much research and development capabilities or consider this as a feature of a large company. The factor loadings the measurement indicators related to variables are adequate. Therefore, the indicators and dimensions are reliable. The results of structural equation modeling are shown in Fig. 2.

Structures and dimensions have high internal compatibility because its composite reliability indices, Cronbach's alpha, and rho-A are higher than 0.7 (Table 2).

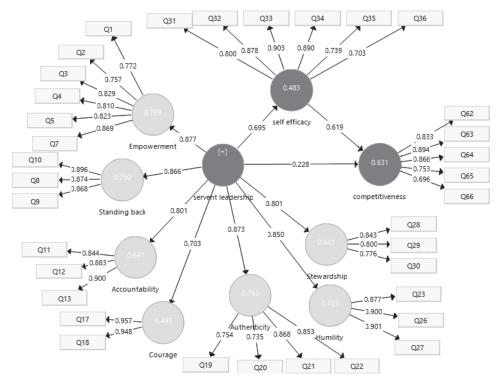


Fig. 2. Structural equation modeling results.

Table 2. Reliability and validity.

	AVE	Cronbach's alpha	Composite reliability	rho-A
Servant leadership	0.503	0.959	0.960	0.958
Empowerment	0.658	0.895	0.920	0.901
Standing back	0.774	0.732	0.848	0.856
Accountability	0.768	0.848	0.908	0.848
Courage	0.907	0.898	0.951	0.903
Authenticity	0.647	0.816	0.880	0.822
Humility	0.797	0.873	0.922	0.837
Stewardship	0.651	0.732	0.848	0.732
Self-efficacy	0.676	0.902	0.926	0.910
Competitiveness	0.659	0.868	0.906	0.880

Besides, convergent validity is confirmed for all latent variables because the average variance extracted (AVE) exceeds the 0.5 criterion (Fornell and Larcker, 1981). Also, Table 3 shows that the square root of the AVE of each latent variable is greater than its correlation with any other latent variable. Therefore, divergent

Table 3.	Divergent	validity
radic J.	Divergent	vanuity.

	Competitiveness	Self-efficacy	Servant leadership
Competitiveness	0.812*		
Self-efficacy	0.777	0.822*	0.709*
Servant leadership	0.658	0.695	

Table 4. Determination coefficients.

	R <sup>2</sup> values	Q <sup>2</sup> values
Empowerment	0.769	0.497
Standing back	0.750	0.575
Accountability	0.641	0.485
Courage	0.495	0.444
Authenticity	0.762	0.489
Humility	0.723	0.571
Stewardship	0.641	0.409
Self-efficacy	0.453	0.317
Competitiveness	0.631	0.403

Table 5. Relationships of main variables.

Effec	cts on endogenous variables	Direct effect $(\beta)$	<i>t</i> -value
1	Servant leadership → competitiveness	0.228	4.335
2	Servant leadership $\rightarrow$ self-efficacy	0.695	21.091
3	Self-efficacy $\rightarrow$ competitiveness	0.619	11.870

validity is also confirmed, and it can be concluded that the main constructs measure different aspects.

#### Structural model

In Table 4,  $R^2$  values for endogenous variables and the  $Q^2$  values show acceptable numbers. Therefore, the model has an appropriate predictive ability. In order to be able to compare the proposed hypotheses, the accuracy and stability of the obtained estimates must be evaluated. T values are calculated for determining the importance of path coefficients using bootstrapping (500 samples); all coefficients are greater than 1.96 (Table 5). Therefore, the three hypotheses proposed in the study are confirmed. Also, the goodness of fit index  $GOF = \sqrt{(\overline{Com} \times \overline{R^2})}$ , which is used to evaluate the whole model, is 0.576. Therefore, the model has a good fit.

In general, the results of this study confirm the hypothesized model, support the validity and reliability of the measurement model (Tables 3–5), and show the high predictive power of the model. The results show that servant leadership has a positive and significant effect on self-efficacy ( $\beta = 0.695$ , t = 21.091), which confirms the results of previous studies (Bande et al., 2016). This positive association indicates that start-ups need to have servant leaders to have employees with high self-efficacy. In other words, start-ups led by servant leaders will have self-efficient employees. It was also found that self-efficacy has a positive and significant relationship with competitiveness ( $\beta = 0.619$ , t = 11.870); therefore, start-ups with self-efficacy employees are more competitive in the same situation than start-ups with lower self-efficacy employees. In particular, our research findings show that as a mediating variable, self-efficacy has a good effect on the relationship between servant leadership and competitiveness because servant leadership is mediated by self-efficacy with a path coefficient of 0.43 (0.619 \* 0.695). While it directly affects competitiveness with a coefficient of 0.23. Therefore, according to the results of Hypotheses 1 to 3, Hypothesis 4 is also confirmed.

## **Discussion and Conclusion**

The results of this study indicate that servant leadership directly affects start-ups competitiveness. A servant leader provides the grounds for the organization's competitiveness by considering the ethical aspects and focusing on employees' development and empowerment. The employees are considered the most important source of the majority of start-ups, and according to the resource-based view (RBV), the companies should intensely focus on their organizational assets, particularly human and intangible assets (Lonial and Carter, 2015). Servant leaders are expected to make their employees more empowered so that they themselves become servant leaders. On the other hand, empowered individuals are critical for excellent service and increasing competitiveness (Sanchez-Gutierrez et al., 2010). Empowerment is the best way to make the most of an organization's human resources. The empowerment of employees and helping their motivation and satisfaction enable the organization to earn maximum efficiency and effectiveness of its employees and enjoy more competitiveness (Gerrard and Lockett, 2018). No results were found on the literature review on the effects of servant leadership on the startup competitiveness. The present study focused on the literature gap in servant leadership and start-ups' competitiveness by examining these companies. Most of the studies in the literature have evaluated transformational leadership and the positive effects of this leadership style. Servant leadership is of great importance due to adding the social responsibility component to transformational leadership (Graham, 1991). Startups have a dynamic space (Hmieleski and Ensley, 2007), and servant leadership provides a conceptual context for dynamic leadership (Stone *et al.*, 2004). Servant leaders are able to make difficult decisions in a situation of environmental uncertainty (Sun, 2013). Moreover, the servant leaders would be as efficient as transformational leaders in crisis leadership, if not better (Van Dierendonck *et al.*, 2014). As a practical achievement, this study highlights the importance that servant leadership characteristics could have in improving company competitiveness.

As expected from the literature and consistent with previous studies (Bande et al., 2016; Liden et al., 2014; Qiu et al., 2020), a significant positive relationship was found between servant leadership and self-efficacy. Given that servant leaders focus more on those who are their followers (Stone et al., 2004), the results show that servant leadership invests in their employees by creating an appropriate workplace and provides the grounds for employees' training, learning, and developing skills, that will lead to more efforts and better performance of employees. Therefore, the employees trust and believe more in their capabilities and will enjoy higher self-efficacy. A servant leader strengthens employees' self-esteem and self-efficacy by developing independence in them. The study results show a significant positive relationship between self-efficacy and competitiveness. No results were found in the literature review on the direct effect of these two variables. Increasing employees' self-efficacy in start-up companies could improve their self-confidence, motivation, and their beliefs on their capabilities and at the same time increases the ability of people in the organization and provide the company with more competitiveness. Employees' self-efficacy in a start-up team also increases team commitment and provides the grounds for start-up competitiveness.

In particular, research results indicate that self-efficacy plays a strong mediating role in the relationship between servant leadership and competitiveness. This study shows that servant leadership affects employees self-efficacy behaviors by influencing individual attitudes and confirms that prioritizing employees' interests is not only normatively appropriate but also effective for better competitiveness. The research results confirm that servant leaders consider the success of subordinates as the moral responsibility of their work and play an important role in strengthening the followers' understanding of self-efficacy by clarifying roles and providing social support. Accordingly, with a higher level of self-efficacy, employees can be committed to achieving their performance goals (Gist and Mitchell, 1992). In other words, self-efficient people are confident in their abilities and will make enough efforts to produce successful results such as effective job performance, and better competitiveness because the organization can perform better in the competitive field with higher performance employees. In the presence of higher self-efficacy, creativity is more easily transformed into innovation, and start-ups will be more competitive (Wang and Wu, 2012).

# **Implications and Limitations**

Using these results, managers and start-up owners should increase their awareness of the effects of servant leadership on employees' self-efficacy and competitiveness in the start-up space. The main goal of managers is to maximize organization profitability. Therefore, they can select an educable leadership style, and in contrast to transformational or charismatic leadership, is not limited to individuals with unique inherent characteristics. Learning these styles polishes their organization's capability and helps them achieve maximum profit. Moreover, given that start-ups constitute an important part of the economy, their sustainability and success are important to governments. Therefore, promoting the servant leadership style and its positive effects can be considered. This topic may be addressed in training and information sessions, mainly by upstream organizations or accelerators to start-ups.

Regarding the limitations of this study, a few comments can be made. First is the limited statistical sample of Iranian start-ups. To overcome this limitation, the sample can be collected from different cities and countries, but with a much higher number of samples. Second, the data were collected at a single time, and its nature may be cross-sectional; this can be considered in future studies. Future studies may also include assessing the research results for different start-up groups (for example, based on the work context or age of the organization). Also, the identification of moderator variables in relation to the research topic can be examined. Using other important and influential variables as a mediator can help further to justify the behaviors and effects of servant leadership.

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