



Understanding the Effects of Managerial Competencies (MC) on Organizational Performance (OP) through the mediating role of Entrepreneurship (E) and Social Capital (SC) in the post Covid-19 environment

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Abstract

This study focuses on the impact of managerial competencies upon employee performance within the context of managing technology incubators and science parks in Iran, Western Asia. Set during the pandemic in Iran, it contributes to management studies by exploring the mediating role of entrepreneurship and social capital. Data were collected by survey and analyzed using Amos software. Findings show that, firstly, managerial attention to macro issues (including systems approach, strategic management, participatory management, and resource management) has considerable impact on organizational performance. Secondly, that social capital plays a prominent role in improving the performance of the organization. Third, that disruption in intra-organizational relationships reduces the quality and efficiency of the organization, and has the effect of weakening the organization in times of crisis or in the face of forced unprecedented changes that are out of control, including the pandemic. This research serves as a reminder to alert managers of the importance of employee participation and creativity in teamwork.

Keywords: Managerial competencies, organizational performance, social capital, entrepreneurship, COVID-19 pandemic, Western Asia.

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1. Introduction

Prior research on the impact of managerial competencies on employee organizational performance has often been undertaken within the organization for internal use, and framed by western business interpretation (Herzig, 2004). Less research attention has focused on how social capital and organizational entrepreneurship affect organizational performance, within companies in Western Asia.

Scholars of organizational studies acknowledge ‘managerial competences’ as a key factor that affects the efficiency of the organization (such as McClelland, 1973), and that

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‘social capital’ can enhance the competitive advantage of an organization (Adler and Kwon, 2002). Accordingly, an organization’s social capital can help managers in achieving organizational goals (Kim et al., 2013; Kim et al., 2018). The development of social capital theory draws attention to the subset of resources that an individual can access, not through their own inheritance or acquisition, but through interaction with others (Lin, 2001). More than a single concept, social capital is a set of concepts that has two main characteristics; on the one hand, it needs to include aspects of social structure and, on the other hand, it must justify the efforts of individuals who live in the community (Poder, 2011). It follows that, in the current business environment, where product and service life-cycles are shortening and future benefits are uncertain in post-pandemic conditions, entrepreneurship, risk-taking, innovation and resilience are crucial.

To address the ongoing global changes and the transition from ‘traditional society’ to ‘intelligence community’ (Peterson, 2009), scholars and practitioners seek new strategies for the optimal use of opportunities and values, as industries now face heightened uncertainty (Moeen, Agarwal and Shah, 2020). Consequently, entrepreneurial orientation has become a much sought-after strategy in organizations (Wales, Covin, and Monsen, 2020). The COVID-19 pandemic has led to a dramatic loss of human life worldwide and generated an unprecedented challenge to the global economy, public health, food systems and the world of work. Millions of organizations face an existential threat, particularly those who lack sufficient flexibility and appropriate management competencies. Aguinis, Villamor and Gabriel (2020) suggest that in order to compensate for the damages caused by the current pandemic, organizations ought to closely examine the factors affecting the improvement of the effectiveness of their management processes, and use them to improve the conditions in order to achieve major organizational goals. The need for organizations to develop resilience is uppermost (Ding et al., 2020), underscoring the need to understand the effects of managerial competencies on organizational performance, which this paper sets out to demonstrate. To this end, we develop the following research question: “what are the effects of managerial competencies on organizational performance during the pandemic?”

The paper now continues with a review of literature, then an overview of the methodology, followed by the findings, discussion and concluding comments.

2. Literature review

The following fields of management research provide the necessary backdrop for analysing the data and addressing the research question.

2.1. Managerial Competencies

Scholars put forward relatively common views on the need to pay attention to the merits and suitability of managers. The ‘competencies approach’ was developed in the field of human resource management in the 1990s and quickly adopted (Martin and Staines, 1994); a competence is defined as a combination of knowledge, skills, behaviors, and attitudes that a person needs in order to be effective in a wide range of positions and various types of organizations (Hellriegel, Jackson and Slocum, 2005). Ballantyne and Povah (1995) found that the competencies approach is not only employed in private companies and business firms, but is used by (and brings benefits to) state-owned companies – as can be found in Iran (Ebrahimi, Moradi and Jafari, 2020). It is important for organizations to assess the competencies of its managers in order to determine the skill gaps and have requisite performance outcomes to help the organizations in developing effective training and development programmes, to enhance the operational efficiency and effectiveness; Bhardwaj and Punia (2013:80) found that “communication skills, teamworking, proactiveness, vision, self-management, result-orientation, strategic-orientation, ambition, persistence, decision making, risk taking and creativity” are the commonly used managerial competencies by successful and effective managers. Bardakçı (2018) implied that innovation plays an important role in

core competency strategy designing.

Plato believed that the government should be ruled by the most qualified citizens (Riesenberg, 1992). More recently, with the scientific discussion of competencies and its use as a measure of performance improvement, increasing attention has been paid to managerial competencies. At an administrative level, the concept of meritocracy refers to a policy whereby qualified people manage and administer the organization (Martin et al., 2014). With unchanging and constant characteristics and without considering other factors, either within the organization or outside the organization, it has never been possible to shield an organization from unpredictable events and conditions, especially during/after a global crisis, and at the same time expect organizational progress. Therefore, having a competent manager to review all the factors affecting the effectiveness of activities is one of the most essential concerns of organizations in its pursuit of achieving goals. Furthermore, organizations and employees need to develop and progress simultaneously for the survival and attainment of mutual goals. Managers must therefore develop the organization through developing the human resources, especially in the light of preparing for the post-pandemic current era.

2.2. Core Competencies in Managerial Accounting

Core competencies are "the combination of knowledge, capabilities (skills), behaviors, and attitudes that create competitive advantages which cannot be imitated without incurring a high cost or can never be imitated. Generating, acquiring, or even imitating core competencies is costly. That is why Core competencies are difficult to overcome barriers for new start-ups. On the other hand, it is a protective barrier or hedge for the existing core competency owner companies. Managerial accounting core competencies: Ability to produce and sell fast, ability to produce with low cost (dominating and controlling the costs) and consequently sell with a low price without sacrificing the profit, Etc., are all crucial competencies a company has to have to compete and survive in globalized competitive markets. Yilmaz (2005) claimed that there is a statistical relationship between the usage of management accounting information systems and the success; profit of SMEs.

Managerial accounting information and efficient usage of this information can provide core competencies such as low cost, better quality, fast and timely delivery, Etc. So efficient usage of management accounting information can be the first step to generating sustainable core competencies. The Sum of core competencies is equal to intellectual capital. Yilmaz and Demirhan (2015) claimed that human capital, which enhances core competencies, contributes to economic growth.

According to Zekany Kay E. (2020), the "Big Eight" listed skills: Communication, Intellectual, Interpersonal) and knowledge (General, Organizational, and Business Accounting and auditing) are required by Public Accounting. Communication in accounting may be one of the essential accounting functions in managing companies.

Communication skills are described as the 'language of business' by Yilmaz, C and others (2009). Managers and Businessmen: decision-makers must communicate with the other departments, companies, government, and other stakeholders. During this communication, they use accounting as the "language of business" by using external reporting, planning, taxation, information systems, and control tools. Besides, Unal (2013) found that lack of core (managerial) competencies are different sectors.

Kavanagh and Drennan (2008) found that the top three attributes for accountants were: analytical skills (problem-solving), business awareness, and basic accounting skills are some of the core competencies that should be improved in accounting education. Besides, Chaplin Sally (2017) listed more detailed skills requirements of new junior employees under twelve headings: Analytics, Knowledge of legislation, Creative thinking, Application of accounting/auditing standards, Computer, Review function, Management, Researching, Report writing, Bookkeeping, Negotiating, and Team collaboration. Ehab K. A. Mohamed and Sherif H. Lashine Sultan and Qaboos (2003) have listed the required management accounting Skills for Global Market as Communication Skills, Computer Skills, Analytical and Intellectual Skills, Multi-

Disciplinary and Inter-Disciplinary Skills, Knowledge of Global Issues, Personal Qualities, and Critical Thinking.

2.3. Personnel Organizational Performance

Managing productivity is a way to assure the performance of an organization (Thomas, 2004), however, many managers who claim to discuss productivity are in fact referring to performance (Thomas and Baron, 1994). Productivity measurements are used by organizations for monitoring and developing daily operations and long-term strategic considerations. Although productivity and performance are interrelated, productivity is a multidimensional term, related to the proportion between outputs and inputs (Grunberg, 2004).

Tangen (2005:35) argues that mathematical definitions can be used as the basis of performance measures, where the major aim is to improve (not to explain) productivity, however “since it can be difficult to translate a verbal definition to a mathematical one, mathematical definitions do not always reflect all the characteristics that represent the concept of productivity”. Bernolak (1997:204) states that productivity indicates how much and how well an organisation produces from the resources used, thus “If we produce more or better goods from the same resources, we increase productivity. Or, if we produce the same goods from less resources, we also increase productivity. The same applies to services. If we provide more services or better-quality services from the same resources, our productivity has increased. Or, if we provide the same services and just as well, from less resources, we also improve productivity”.

In contrast, ‘performance’ is a broader term that covers all aspects of economy and administration; thus, ‘performance’ includes all the goals of competitiveness and excellence of production, and relates to cost, flexibility, speed, reliability or quality (Ferreira and Otley, 2009). Organizational performance is a comprehensive yet straightforward concept that is defined in various ways. Zahedi, Roshandel Arbatani and Hasanpoor (2010) put forward a number of definitions in their study, including the notion that performance is ‘to go beyond’ the achievement of the organizational and social goals, and to undertake responsibilities that individuals should do. They describe organizational performance in terms of obtaining results from the tasks that have been set by the organization responsible for human resources. While Ghazizadeh et al. (2019) describe organizational performance as a behavior that is measured or valued to deliver outputs for achieving organizational goals, Campbell (1990) defines it as a behaviour undertaken by staff members. Furthermore, the behaviour of an employee can be enhanced by an organizational reward system, provided that the employee perceives the reward as worthwhile and equitable with his/her efforts (Galbraith and Cummings, 1967). Equally, Robbins et al. (2009) suggest that performance can be introduced as a function of two variables: ability and motivation.

2.4. Entrepreneurship

Over the course of human history, entrepreneurship has paved the way for the development of modern civilization, yet “While entrepreneurs have long been recognized as a vehicle for exploiting emerging opportunities associated with societal need, we have little understanding of how entrepreneurs will discover and develop those opportunities that lie beyond the pull of existing markets” (Hall, Daneke and Lenox, 2010:439). Indeed, there has been heightened interest in entrepreneurship in recent decades, owing to the pursuit of knowledge surrounding the factors that lead to economic growth, high employment, strong job creation and positive social outcomes (Sesen, 2013). In this sense, an accurate definition of entrepreneurship and entrepreneurial activity could include the notion of developing a process that identifies and exploits opportunities, and creates value from them. It should be noted that value creation, both for the individual entrepreneur (or provision of goods/services) and the public (or recipients of goods/services) is important and it can involve different economic and social aspects (Yazdani, Meigun Puri and Rezaeianzadeh, 2012).

Providing a specific and unambiguous definition of entrepreneurship calls into question many diverse ideas in the light of ongoing changes; not because of the lack of specific definitions in this area, but due to the multiplicity of definitions from different economic, managerial and sociological angles – in addition to the impact of national values and cultural context (Hechavarria and Reynolds, 2009). The main problem is that the lack of consensus among experts about the characteristics of entrepreneurs increases the number of definitions (Kobia and Sikalieh, 2010). One of the first scholars to develop theories about entrepreneurship was Schumpeter (1934:85) who described an entrepreneur as a ‘heroic economic superman’ who possesses qualities of ‘rationality and ‘self-centredness’ and entrepreneurial process as a systemic function.

Some definitions emphasize on the importance of entrepreneurship in the provision of economic efficiency to maximize the return on capital (Estrin, Mickiewicz and Stephan, 2013). While it is important to reward the investors, it is not the only objective that is pursued by an entrepreneur. Effective entrepreneurs work to reward all shareholders for their risky activities (Hurst and Pugsley, 2011). Following Bygrave and Hofer (1990), an entrepreneur is a person who recognizes an opportunity and organizes a new venture to capitalize on it. Drawing attention to the many different types of entrepreneurship, Dilli, Elert, and Herrmann (2018) point out that policy-makers seeking to stimulate entrepreneurship are faced with the trade-off of targeting policy reforms to an entrepreneurship type they intend to promote – at the expense of other types of entrepreneurship and the broader societal consequences that reforms will have.

Innovation is a key dimension of entrepreneurship; it is also a critical factor that ensures the dynamism of an organization and its ability to anticipate, prepare for, respond and adapt to incremental change and sudden disruptions in order to survive and prosper (Blades, 2017; Karman, 2020). Innovation and entrepreneurship can work together as change agents, to assist organizations and policymakers in building resilience and adapting to change (McDermott, Fitzgerald and Buchanan, 2013), thus revitalizing affected organizations in crisis situations such as the pandemic environment.

2.5. Social Capital

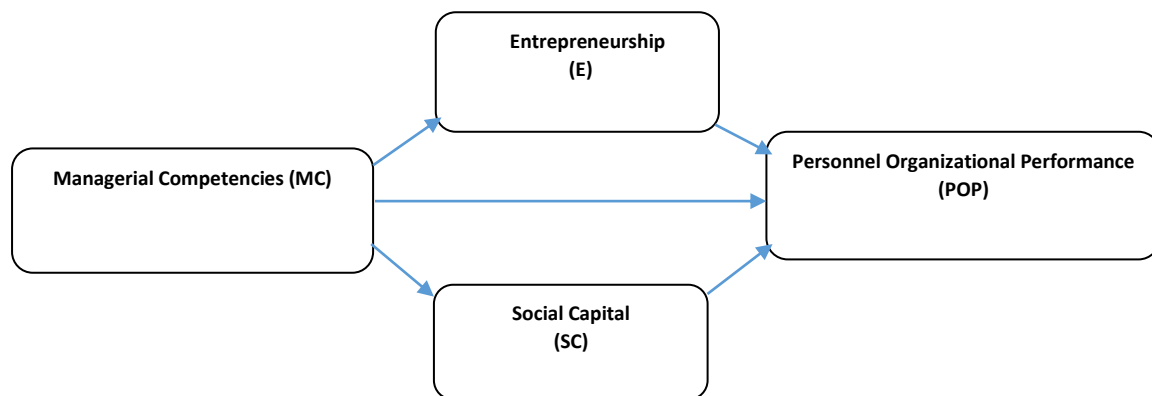
The concept of social capital was incorporated into political science and sociology texts several decades ago (Portes, 1998). Social capital is associated with both the network and the assets that will be mobilized through this network (Nahapiet and Ghoshal, 1998). For Putnam (2000), these interactions generate social capital, involving mechanisms that strengthen the integration of the values of society, and solidarity and togetherness; and which create consensus and sustain the stable development of society (a moving equilibrium). He states that if a region has a well-functioning economic system and a high level of political integration, these are the result of the region’s successful accumulation of social capital. The emphasis in modern societies on consensus is based on interconnected networks of trust – among citizens, families, voluntary organizations, religious denominations, civic associations, and so on (DeLue, 2000). The belief is that wherever trust and social networks flourish, individuals, companies, neighborhoods and even nations can thrive (Putnam, 2000). This view, however, overlooks the fact that access to social capital is undoubtedly different between individuals, depending on local contexts, financial resources and educational level. For Bourdieu (1991), there are three dimensions of social capital, each with its own relationship to class: economic, cultural and social capital. This view puts the emphasis on social capital becoming a resource in the social struggles that are carried out in different social arenas or fields. Although these two approaches overlap (e.g., social exchange, recognition/trust), ‘trust’ (in the Putnamian sense of the word) has no place in Bourdieu’s conceptualization. Besides, Yilmaz and Demirhan (2016) found that intellectual capital and consequently social capital has long term impact on economic growth.

Nevertheless, scholars recognize that social capital is an important aspect of any

development, and may even play a more important role than physical and human capital in communities and networks of social relationships integrating people and organizations. Thus, Fine (2010) puts forward that, when the organization lags behind its predetermined plans and the obligation to compensate for the backlog is one of the general and main goals of the organization, then attention to this effective core becomes most important.

3. Conceptual model

Drawing from the literature, a conceptual model is put forward with Managerial Competencies (MC) as an independent variable, Organizational Performance (OP) as a dependent variable and Social Capital (SC) and Entrepreneurship (E) as mediators:



Model 1: Conceptual Model

3.1. Hypotheses

Managerial Competencies (MC) and Personnel Organizational Performance (POP)

If we analyze an organization's human resource systems, it is clear that in most cases there is a lack of cohesion between its various subsystems such as training, performance evaluation, absorption and so on, which can lead to inefficiency. In other words, the existence of strong communication and overlap between different subsystems of human resources to mutually reinforce each of these subsystems is essential. Furthermore, a systematic and dynamic human resources system is necessary for enhancing the integration of human resources and its functions (Wright, McMahan and McWilliams, 1994). One of the most effective approaches to achieve this is to adopt a competency approach in human resource management, in which all the traits, characteristics, skills and attitudes related to an employee's effectiveness in carrying out the duties and responsibilities are taken into consideration. Here, competence is interpreted as a transversal term that has a direct or indirect impact on job performance, as a result of one's ability and behaviour; it is an underlying characteristic of a person, resulting in superior performance in a job (Özçelik and Ferman, 2006). Based on this view, the first hypothesis is put forward:

Managerial Competencies have effect on Personnel Organizational Performance.

The mediating role of Entrepreneurship, Managerial Competencies and Personnel Organizational Performance

Handfield et al. (2009) demonstrated that entrepreneurial behaviours (supply market intelligence and supply management influence) will contribute to integration within the firm and with suppliers, in order to drive performance improvement. Entrepreneurial activity is a critical pathway to improve the performance of organizations in any field, size and with any level of experience, and thus can positively improve the overall performance of employees (Kuratko, Ireland, and Hornsby, 2001). Based on these notions, the second hypothesis is developed:

3.2. Managerial competencies affect Personnel Organizational Performance through the mediating role of Entrepreneurship.

The mediating role of Social Capital, Managerial Competencies and Personnel Organizational Performance

By definition, social capital can bring economic, social and political benefits, generated from the relationship of trust and mutual cooperation with performance. Attention is drawn to the mechanisms through which social capital can have a positive effect on economic performance (Zhang and Fung, 2006); the most important mechanisms being lower transaction costs, lower rates of movement of persons, knowledge sharing and innovation, risk taking, product quality improvement. For Coleman (1990), modern societies are dominated by corporate actors defined by relationships among social positions; social capital facilitates sharing knowledge and information among employees, and also makes it possible to achieve certain goals that are unavailable in the absence of social capital. Based on this notion, the third hypothesis is proposed:

4. Methodology

This study uses survey methodology. The statistical population consisted of the employees of companies based in Isfahan Science & Technology Town, a pioneering model for the management of technology incubators and science parks across Iran (IASP, 2021). Of the 350 surveys distributed, 319 were collected, of which 313 were correctly completed for use. The data collection tool was a standard and self-made survey in two parts, comprising a section on demographic information (i.e., gender, age, education level and marital status of participants) and a second part devoted to specific questions tailored to the hypothesis.

4.1. The validity and reliability

Content validity was used to evaluate the validity of the measurement tool. The preliminary survey was presented to three professors; out of 68 possible questions for the independent variable "Managerial Competencies" 40 questions were selected. To measure the mediator "Entrepreneurship", two sets of questions were included from Zampetakis and Moustakis (2007) (12 questions) and Hill (2003) (16 questions). Also, 15 questions were approved to evaluate the mediator "Social Capital", 15 questions were approved on the dependent variable "Organizational Performance", thus confirming the validity of the survey.

In the next section, after reviewing the descriptive statistical population, using inferential statistical analysis, each hypothesis is tested. To evaluate the normality of distribution of variables, SPSS software and Kolmogorov-Smirnov test were used. To assess measurement models, confirmatory factor analysis and structural equation modeling Amos software was used, then the model, regression coefficients and model factor loadings analysis are discussed.

4.2. Demographic descriptive statistics

From the data collected, 71.9% of respondents were male and 28.1% female, of whom 43.8% were single and 56.2% married. In terms of age, 76.7% of respondents were between 25 and 40 years old, 15.3% between 41 and 60 years old, 5.1% younger than 25 years old and 2.9% over 60 years. Regarding education level, 64.2% of respondents had a master's degree, 27.5% had bachelor's degree, 3.8% below bachelor level and 4.5% had a Ph.D.

4.3. Data description indicators

Data description indices are divided into three groups: central indices (e.g., mean and median), dispersion indices (e.g., variance and standard deviation), and distribution shape indices (e.g., skewness indices and elongation indices). Table 1 shows the data description indices for the research components.

Social Capital (SC)	Entrepreneurship (E)	Personnel Organizational Performance (POP)	Managerial Competencies (MC)	Indicators
45/2	465/2	786/1	8077/1	Mean
023/0	024/0	024/0	026/0	Mean standard error
466/2	53/2	666/1	825/1	Median
416/0	428/0	441/0	468/0	Standard deviation
174/0	184/0	195/0	219/0	Variance
352/0-	119/0-	4/0	506/0	Skewness
570/0-	540/0-	782/0-	141/0-	Elongation

Table 1 – Data description indices for research components

As can be seen in Table (1), among the four main components of research, the organizational entrepreneurship component has the highest average value (2.465). In the analysis, the value of the test is three.

5. Structural equation modelling

Structural equation modelling is a powerful multivariate analysis technique of the multivariate regression family that simultaneously tests a set of regression equations and uses hypotheses to test hypotheses about the relationships between observed and hidden variables. First, the fit of the model is examined. In this regard, the fit of three models of measurement, structural and general are examined and then the hypotheses are tested. To evaluate the measurement model, three cases of index reliability, convergent validity and divergent validity are used. The reliability of the index is measured by three criteria: 1) Cronbach's alpha, 2) Combined reliability, 3) Factor load coefficients.

5.1. Fit of measurement models

To measure the fit of measurement models, Cronbach's alpha coefficient, combined reliability, factor load coefficients, convergent validity and divergent validity are investigated, in turn.

5.2. Cronbach's alpha coefficients

This coefficient is used to evaluate internal stability (internal compatibility). Internal stability indicates the degree of correlation between a structure and its indicators. A Cronbach's alpha value above 0.7 indicates acceptable reliability.

Social Capital (SC)	Entrepreneurship (E)	Personnel Organizational Performance (POP)	Managerial Competencies (MC)	
789/0	883/0	901/0	954/0	Cronbach's alpha coefficients

Table 2 - Cronbach's alpha coefficient of research surveys

5.3. Measuring factor loads

Before examining the main model and research hypotheses, using the first-order confirmatory factor analysis method, the ability to measure research variables is assessed by

survey questions. Figure (1) shows the research model with factor load coefficients.

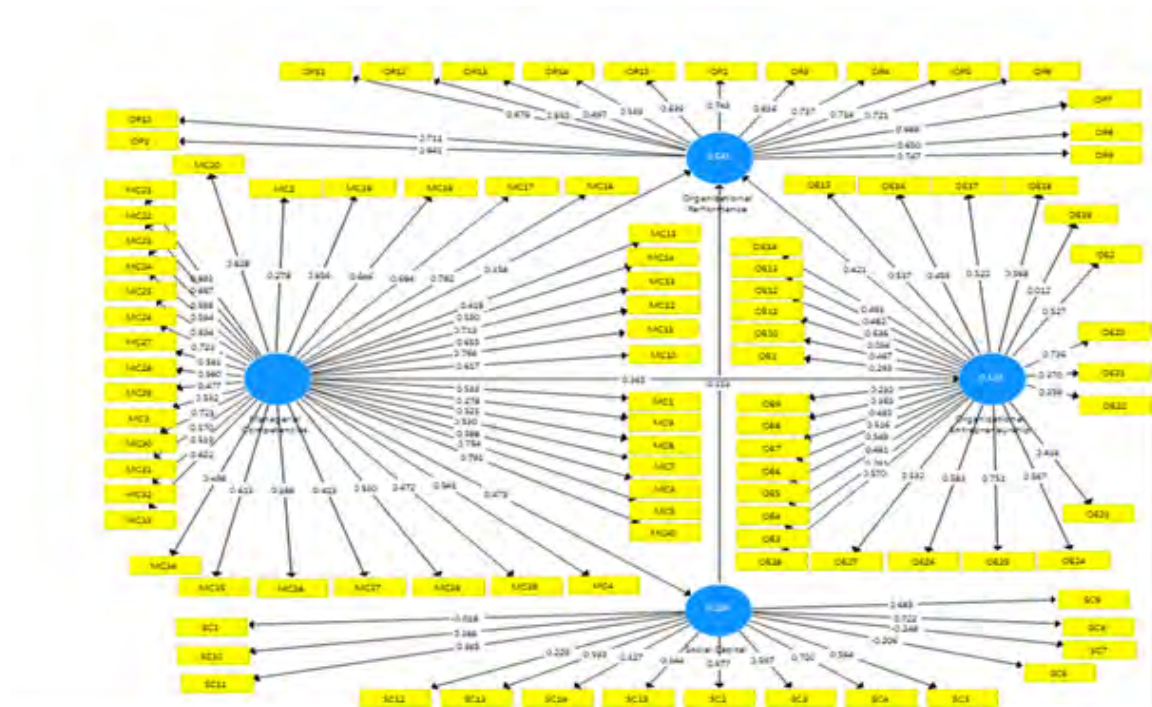


Figure 1 – Amounts of factor loads related to structures and indices of research variables
 As can be seen in Figure 1, the factor load factor of some indicators in each of the components are weak values, that all values less than 0.4 should be omitted and not included in the analysis.

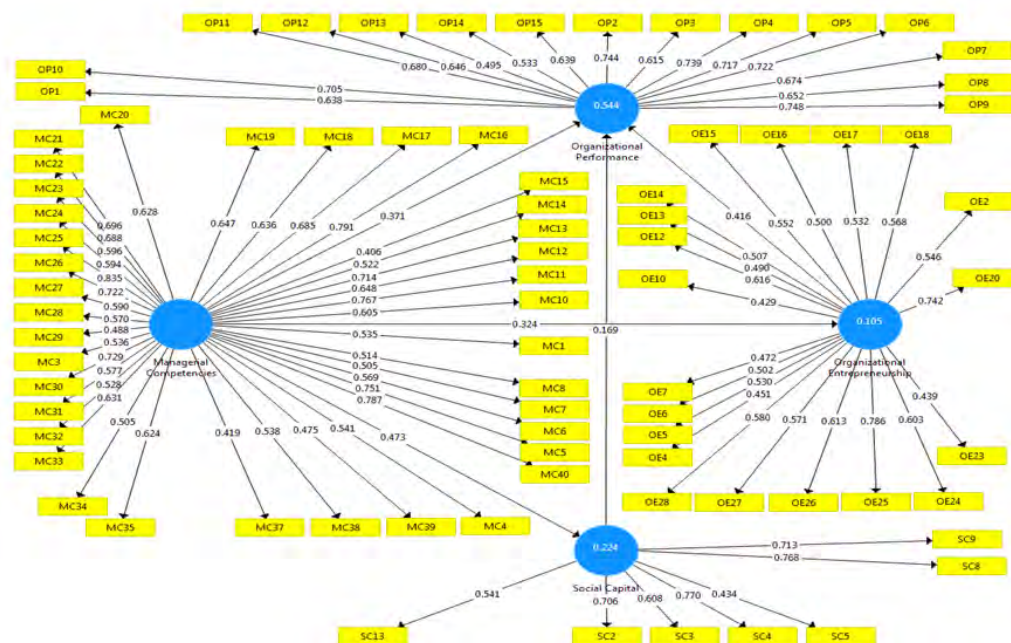


Figure 2 – Amounts of factor loads related to structures and indicators of research variables after eliminating the two stages of inappropriate indicators

5.4. Combined reliability coefficient

In the combined reliability coefficient, not all indicators are included in the calculations with equal importance, but the indicators with more factor load are more important. If the value of

composite reliability for each structure is above 0.7, it indicates the appropriate internal stability for the measurement models.

Social Capital (SC)	Entrepreneurship (E)	Personnel Organizational Performance (POP)	Managerial Competencies (MC)
839/0	898/0	922/0	957/0

Table 3 – Combined reliability coefficient of research variables

The value of the combined reliability of all components is greater than 0.7, which indicates the appropriate combined reliability of the components. Figure 3 also shows the combined reliability of the components of the present study.

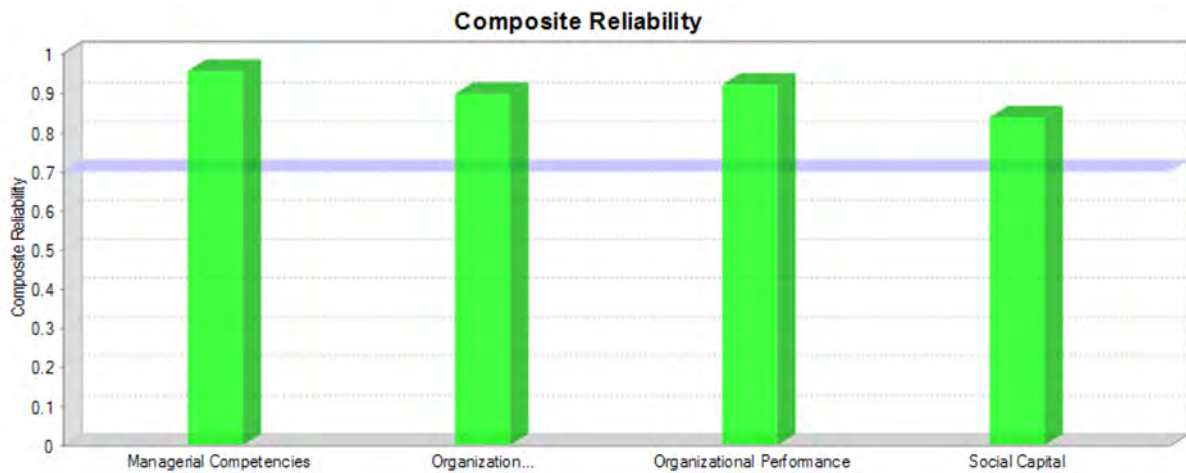


Figure 3 – Combined reliability coefficient of research variables

5.5 Convergent validity

Convergent validity is a criterion used to fit measurement models in the PLS method. The AVE criterion represents the average variance shared between each structure and its indices. The values of the AVE coefficient for the first-order hidden variables based on the research model are given in Table 4.

Social Capital (SC)	Entrepreneurship (E)	Personnel Organizational Performance (POP)	Managerial Competencies (MC)
434/0	312/0	445/0	384/0

Table 4 – AVE coefficients for the first-order hidden variables of the research model

As can be seen in Table 4, the value of the AVE coefficient for all components is less than 0.5. To correct these coefficients, the indices of these hidden variables that have the lowest amount of factor load must be removed and the value of the AVE coefficient must be recalculated.

After ten steps of removing the upgrade indicators, the fitting coefficients of the measurement model are shown in Figure 4:

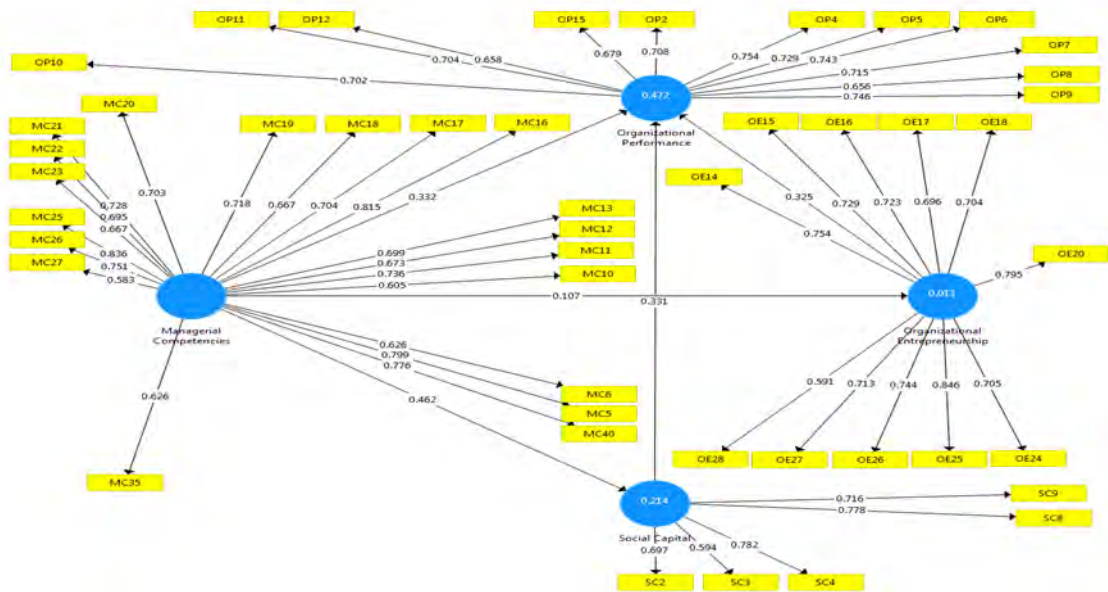


Figure 4 – Factor load coefficients in the research model after the tenth step of eliminating AVE enhancement indices

Social Capital (SC)	Entrepreneurship (E)	Personnel Organizational Performance (POP)	Managerial Competencies (MC)
514/0	532/0	503/0	503/0

Table 5: AVE coefficients for the first-order hidden variables of the research model after the tenth step of eliminating AVE-enhancing indicators

As can be seen in Table 5, the value of the AVE coefficient for all components is more than 0.5, which shows the appropriate convergent validity of the surveys and is a confirmation of the fit of the measurement model.

5.5. Comparing the distribution of data with normal distribution

The Kolmogorov-Smirnov test was used to assess the normal distribution of the variables that the results shown in Table 6:

Social Capital (SC)	Entrepreneurship (E)	Personnel Organizational Performance (POP)	Managerial Competencies (MC)	Variables
1/283	0/625	1/274	1/028	k-s-z
0/074	0/829	0/072	0/241	P

Table 6: Comparing the distribution of data with normal distribution

According to statistics in table 6, k-s-z in the $P \leq 0.05$ for all variables is not significant. As a result, the distribution of scores of research data is normal.

5.6. Confirmatory factor analysis model

Confirmatory factor analysis model variables are presented by Figure 2. The model shows the factor loadings for each factor. Items that have T less than 96.1 and load factor are below 40% can be removed in order to modify the model.

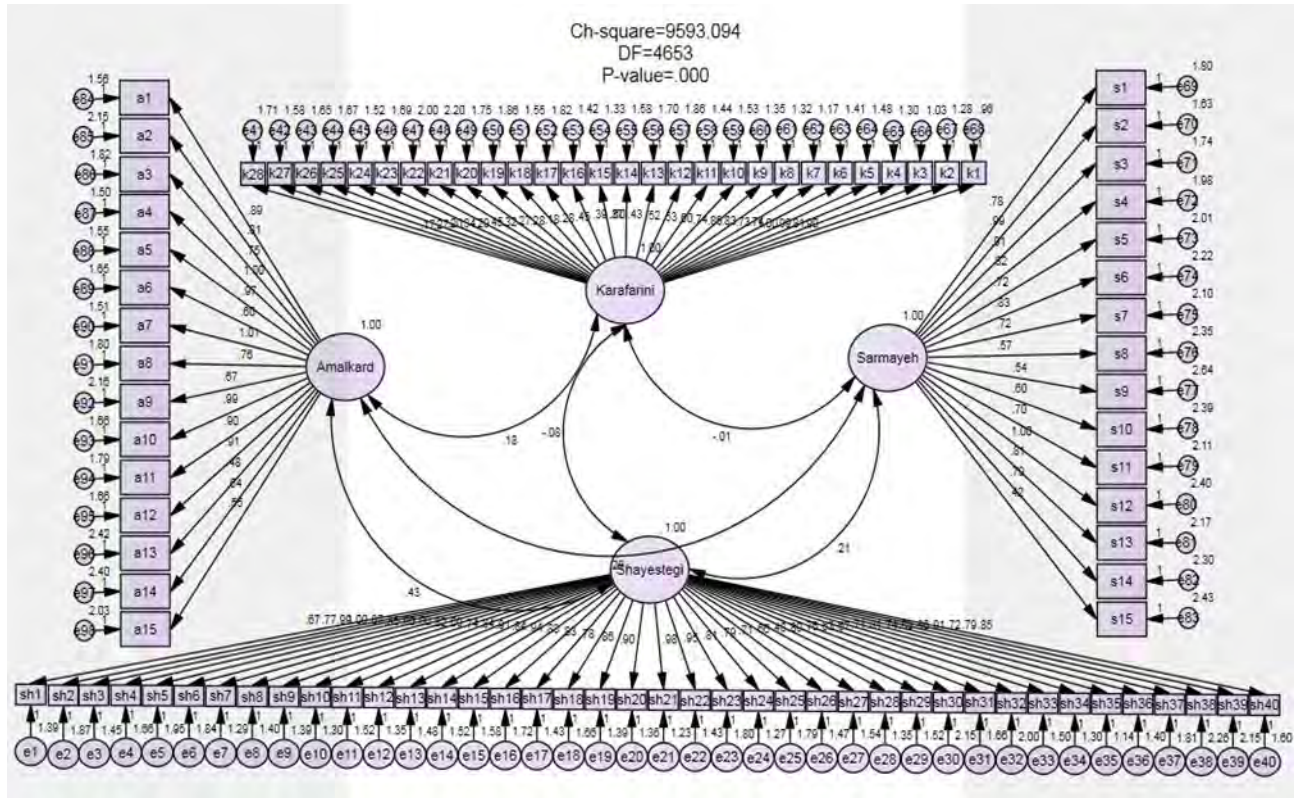


Figure 5 – Confirmatory factor analysis model

The important indices of the first confirmatory factor analysis model was presented in Table 3, which shows a total model fit is acceptable.

RMSEA	058/0	Excellent
Chi-Square/Dr	06/2	Excellent
GFI	595/0	Weak
AGFI	577/0	Weak
NFI	385/0	Weak
CFI	544/0	Weak
IFI	548/0	Weak
RMR	181/0	Weak

Table 7: First confirmatory factor analysis model

Questions that have a standard factor loading less than 0.4 are removed from the model to improve it; accordingly, 23 questions were removed from the model.

5.7. Structural Equation Modelling

This model explains the hidden variables; each hidden structure based on a number of reagents is introduced. Structural equation modelling is shown by Figure 6:

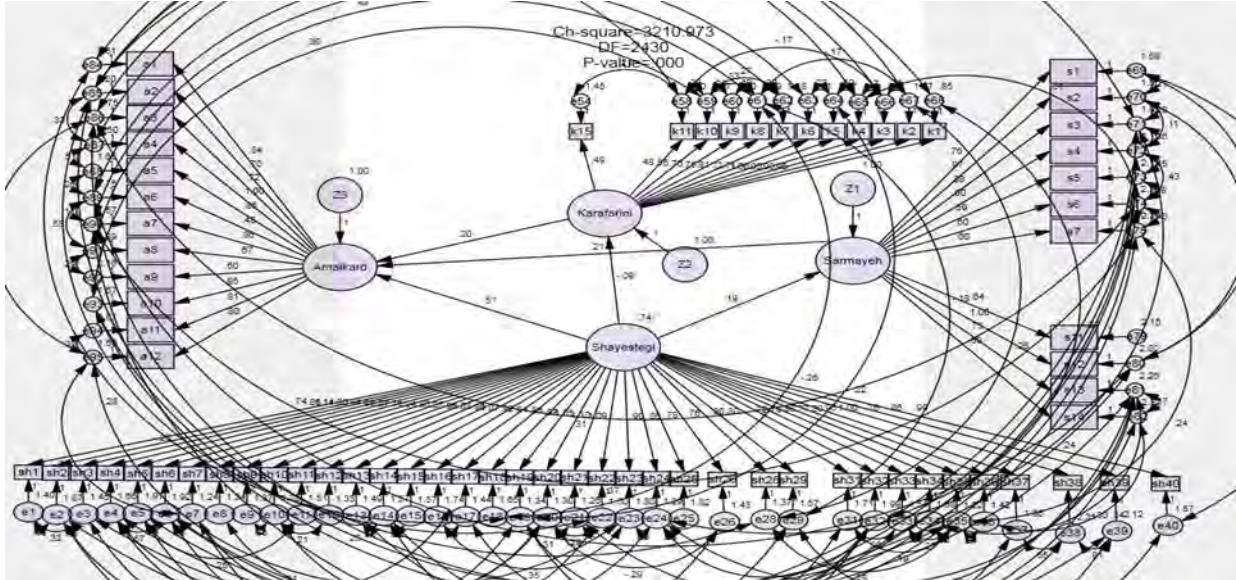


Figure 6 – Structural Equation Modelling

The results of structural equation modelling show that the most factor loadings were allocated to managerial competencies on organizational performance with 0.512 and the lowest factor loadings was related to effect of managerial competencies on entrepreneurship with -0.095.

Important indicators of the measurement model are shown in Table 8, which shows a total model fit is acceptable.

RMSEA	032/0	Excellent
Chi-Square/Dr	321/1	Excellent
GFI	79/0	Weak
AGFI	767/0	Weak
NFI	692/0	Weak
CFI	9/0	Acceptable
IFI	902/0	Acceptable

Table 8: structural equation model fitting

Table 9 shows the regression weights in both standard and non-standard situations that wherever the P-value is less than 0.05, relationship is statistically significant at the 95% level and wherever the P-value is less than 0.01 relationship is significant at 99%, and due to the significant level of the most factors that is less than 0.001, we can say that the statements of the model is significant at 99%.

			Estimate	Standardized Regression Weights	S.E.	C.R.	P-value
SC	←	MC	.193	.164	.079	2.433	.015
E	←	MC	-.095	-.081	.075	-1.269	.205
POP	←	MC	.512	.388	.092	5.541	***
POP	←	SC	.207	.184	.074	2.795	.005
POP	←	E	.199	.175	.071	2.814	.005

Table 9: Structural equation modelling regression coefficients

According to Table 9, considering the three stars of Managerial Competencies' impact on Organizational Performance, we conclude that the first hypothesis “managerial competencies

has influence on organizational performance” is significant at 99%. As well as other hypotheses according to results reported in the above table are significant at 95%. According to the results of the data analysis, the hypotheses were confirmed, as discussed below.

6. Discussion

In the first hypothesis, “managerial competencies influence on organizational performance” that was evaluated with the first part of the survey, questions 1 to 40, the results showed that the systemic approach that was assessed with Question 3 in the ‘managerial competencies’ part of survey with 1/098 factor loadings has the most impact on influence of managerial competencies on the organizational performance, and participatory management with 1.097 loadings factor, strategic management with 1.083 factor loading, resource management with 1.055 load factor and change management with 1.003 factor loadings are in subsequent positions. On the other hand, accountability with 0.533 load factor has the least impact on influence of managerial competencies on the organizational performance. As well as individual skills and organizational commitment with 0.703 and 0.726 factor loadings are in the next place.

Thus, it can be concluded that the macroeconomic management (including “systemic approach”, “strategic management” and “participatory management and resource management”) has a greater impact on organizational performance; versus the impact of individual skills, which are less effective. Moreover, the three stars of P on all survey questions can be concluded all the items is at 99% significance as well as the first hypothesis was confirmed.

The second hypothesis: “managerial competencies through the mediation role of social capital affects organizational performance” that was investigated with the third part of the survey contains 15 questions. The results showed that “in my view, working in the organization is a pleasure” with 1.225 factor loadings accounted for the highest factor loadings; and “I should present at work without any expectation to improve the organization” with 1.086 load factor and “I do not feel safe to leave my wallet and belongings on the desktop if I leave my work” with 1.025 load factor in the future are 025/1 standing on the next levels. In contrast, “I think the managers of the organization are satisfied with my suggestions and comment” with 0.397 load factor accounting for the minimum load factor.

Thus, it appears that while there are good working conditions in that organization, in terms of communication within the organization and conditions of open discourse, the organization has weaknesses and improving communication within the organization can lead to improved organizational performance. The three stars of questions 1 to 14 indicates the significance of the items is at 99 percent and only question 15 is significant at 95 percent, so the second hypothesis is also confirmed.

The third hypothesis, “managerial competencies through the mediation role of entrepreneurship affects organizational performance” evaluates the effect of entrepreneurship and management attention to this issue and its impact on organizational performance – the second part of the survey with questions 1 to 15 were evaluated. The result indicates that “Once desired results are not achieved, I quickly lowered my actions” with 1.015 load factor has the greatest load factor. Also, “I get the proposed measures with an efficient manner, through bureaucratic red tape” with 0.918 load factor, and “when my colleagues have cautious manners, I use new approaches to move into the future” with 0.846 load factor has the next highest load factor. In contrast, “the organization emphasizes teamwork” with 0.163 load factor and “There are many programs to make sure the coordination of new employees with the goals and policies of the organization” with 0.198 load factor has the lowest load factor.

Thus, it can be deduced that the bureaucratic structure is in good condition, yet there are flaws in the work groups, team-work and communication; formulated policies are needed to align new employees. The low load factor in questions 11 to 21 indicates a weakness regarding encouraging employees towards innovation. It can be concluded that one reason for the lack of success commensurate with the potential of the statistical population is due to the lack of attention regarding innovation and entrepreneurship within the organization. Moreover, apart from questions 19, 20, 21, 26 and 28 which are significant at the 95% level, the rest of the items were significant at 99% and thus the third hypothesis is confirmed.

The findings confirm the need for managers to have a number of competencies including communication skills, teamworking, proactiveness, vision, self-management, result-orientation, strategic-orientation, ambition, persistence, decision making, risk taking and creativity in order to function effectively, in line with Bhardwaj and Punia (2013). In other words, they need to be able to manage and administer the organization to achieve goals, as stated by Martin et al. (2014).

Although individual efforts are less effective than group efforts, the findings give emphasis to the importance of measuring individual performance in terms of delivering outputs for achieving organizational goals, echoing Ghazizadeh et al. (2019), while considering an individual's ability and motivation, as suggested by Robbins et al. (2009).

The findings support the studies of entrepreneurs for value creation, both for the individual entrepreneur (or provision of goods/services) and for the public (or recipients of goods/services) – c.f., Hall et al. (2010); Yazdani et al. (2012) and Sesen (2013). Indeed, entrepreneurs play a key role in terms of economic efficiency to maximize the return on capital (Estrin et al., 2013), in order to enhance social development (Dilli et al., 2018). They therefore need to be able to innovate, and to drive the organization to anticipate, prepare for, respond and adapt to incremental change and sudden disruptions in order to survive and prosper, as stated by Blades (2017) and Karman (2020), thus fortifying the organization in crisis situations such as the pandemic environment.

The findings also support the literature that highlights the importance of interconnected networks of social exchange, recognition/trust (Putnam, 2000) among individuals and organizations and so forth (DeLue, 2000). It infers that wherever trust and social networks flourish, individuals and organizations can thrive (Putnam, 2000). As such, organizations are advised to focus on encouraging networks of social relationships, in order to be more resilient and face unprecedented challenges when a crisis situation arises (such as the pandemic environment), as advocated by Fine (2010).

6.1. Research limitations and further study

This study has a number of limitations, which also offer avenues for future research. Owing to the pandemic measures and restrictions at the organization level, it was not possible to communicate with all employees in the organizations under review. Also, due to altered/interrupted work practises, many companies and organizations refused to cooperate with undertaking the survey, which limited the ability to generalize the results to more organizations. There is scope to extend the study by repeating the data collection in order to compare results, and to design a framework for comparison. Also, as the research was undertaken in Iran during the pandemic, it would be constructive to broaden the study by administering the survey in other regions of Asia, in order to compare and contrast the effects of managerial competencies on organizational performance in other contexts (e.g., different historic, political, cultural and social environments), through the mediating role of entrepreneurship and social capital, in the context of post-pandemic recovery.

6.2. Concluding comments

In this study, one main hypothesis and two sub-hypotheses were examined. Having confirmed each of the research hypotheses, four key conclusions can be drawn, which underscore the need to pay greater attention to independent variables (management competencies) and mediation (social capital and organizational entrepreneurship) – in order to improve the dependent variable (organization performance).

– Firstly, management competencies have different dimensions which affect the performance of the organization and therefore merit attention. According to the research results, these dimensions can be prioritized; it can be stated that attention to systemic attitude, team participation management, strategic management, resource management and leadership can act as parameters with greater impact. In order to improve the mentioned cases, it is suggested that more emphasis be placed on the systemic attitude of managers and lead them to see the organization as an integrated unit so that all its components and parts are understood in relation to each other. Also, team building and social capital participation in the company should be considered as a very important factor with a broader perspective. Overall, it can be said that the emphasis on holism and attention to organizational resources as organizational competitive advantages can ensure the improvement of organizational performance.

– Secondly, social capital (one of the most important resources of any organization) plays a prominent role in improving the performance of the organization and, therefore, according to the results of the research, it is suggested that more attention be paid to the cases in which respondents have lower scores and took action to improve their condition. Among these cases, we can refer to the study of the impact of social capital on the performance of the organization, which shows that in the statistical population, there is no appropriate response from managers to the suggestions and opinions of employees; a situation which merits closer attention and reviewing. Also, the low load of this section indicates that the relations within the organization are poor, hence the need to create greater intimacy in the organization which can improve the conditions of social capital and ultimately lead to better performance.

– Thirdly, paying attention to organizational entrepreneurship as another effective parameter can improve the performance of the organization. In order to improve the level of organizational entrepreneurship, it seems that not paying attention to teamwork as a low-load factor is one of the weaknesses of the statistical population in this sector, which can improve the conditions of the organization. Other issues that need more attention include the reluctance of the organization to discuss freely with all employees (thus, suppressing the talents of entrepreneurs and talented employees). Also, there is the need to create a written program to induct and coordinate new employees in line with the goals of the organization, which can help improve the situation of the organization.

– Lastly, in order to measure and improve the performance of the organization, it seems that the transfer of information between the components of the organization has a weakness. However, this weakness can be attributed to the unwillingness to have close communication between colleagues in view of the pandemic; as a way forward, creating an approach to rotate information within the organization can improve the performance of the organization and accelerate the progress of the organization, especially after the decline in the efficiency of organizations due to pandemic conditions.

To sum up, it was determined during the study that managerial attention to macro issues (including systems approach, strategic management, participatory management and resource management) has a greater impact on organizational performance. In contrast, individual skills are less effective. Also, based on the research findings, it was found that disruption in intra-

organizational relationships reduces the quality and efficiency of the organization and it makes the organization very fragile in the face of change. At the same time, paying attention to fair evaluation and creating new solutions for solving problems has a great impact on improving the organizational performance of employees. Neglecting teamwork also reduces efficiency and flexibility, while having a positive atmosphere about finding new approaches and being willing to use new solutions to get things done will have a positive effect on the performance of people in the organization and makes the organization more dynamic in times of crisis or in the face of forced changes out of control, including the pandemic environment.

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