



The Role of Types of Organizational Culture on The Lean Behaviors of Principals Mediated By Coaching Leadership (A Study In The Field of Consequences of The Organizational Culture of Schools)

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Abstract:

The aim of the study was to investigate the role of school organizational culture on the lean behaviors of elementary school principals by the mediating role of their coaching leadership. The research population was all primary school teachers in Ilam province, from which a sample of 339 teachers was selected using proportional stratified random sampling based on Cochran's formula. This is a quantitative correlational research study through covariance-based structural equation modeling approach. For data collection, Denison's (2000) organizational culture questionnaire; Pilaz Zuborbuhler et al. (2021) coaching leadership questionnaire as well as, the researcher-made questionnaire of lean behaviors of school principals were used. The reliability and validity of the questionnaires were investigated with Cronbach's alpha techniques, content validity ratio, exploratory factor analysis and confirmatory factor analysis. In order to analyze data and test research hypotheses, correlation matrix analysis and structural equation modeling were used with SPSS.v25 and LISREL.v10 software. The results indicated that: 1) the four types of organizational culture (involvement, adaptability, mission and consistency) had a direct, positive and significant effect on the lean behaviors of school principals 2) the four types of organizational culture had an indirect, positive and significant effect on the lean behaviors of school principals through mediating role of their coaching leadership. 3) Four types of organizational culture and coaching leadership of school principals estimated 59% of the variance of their lean behaviors. They were elementary. 4) Among all types of organizational culture, adaptability culture had the highest effect on principals' lean behaviors

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Introduction:

Education is one of the organizations that faces lots of waste in all its dimensions and processes. Non-applicable courses, unemployment of graduates, low quality of education, routine and parallel activities (Eaker & DuFour, 2009), more than 50% of applicants of university entrance exam in science field (2019), despite the needs of technicians and specialists in other fields, shortage of 26000 teachers in current academic year (2021-2022), the low average final score of the students in grade 11 in 2015 (GPA=12), which means the waste of 40% of education resources, are examples of resource waste and problems in the education system (Gholami, Ahmadi Khanamini & Ahmadiyan, 2020). To face the upcoming challenges, the educational system should be equipped with new management approaches and tools. Among these tools is the use of pure leadership principles and methods. Lean leadership can improve operations and processes, reduce costs, eliminate waste of resources, increase audience satisfaction, and lead the educational system to continuous improvement and value creation, as well as increase its capacity to face the challenges and complex developments of the current world (Jafari and Yazdani, 2008). From a behavioral point of view, lean leadership refers to behaviors that help create value for the organization. The classification of behaviors into three categories (behaviors that do not add value but are unavoidable, waste behaviors, and lean behaviors) was first investigated by Emiliani (1998). Unavoidable behaviors are such as prejudices, negativity and rumours. Waste behaviors are such as revenge, humiliation and blame. Examples of

lean behaviors that add value to the organization include: patience, trust, wisdom, objectivity, calmness, humility and balance (Hussein & Al-Zubaydi, 2020). Lean behaviors can increase people's ability to solve problems, reduce costs, improve efficiency, and eliminate waste in the organization (Puvanasvaran, 2012). Therefore, using lean behaviors in schools can improve the performance of the educational system (Grigg, Goodyer & Frater, 2020).

Creating and strengthening lean behaviors in the organization is influenced by various factors. One of the most important is organizational culture. Organizational culture is a key factor in the success of lean processes. Culture determines whether an idea or process is accepted or rejected. For the successful implementation of lean processes, the organization needs a balanced organizational culture (Pakdil & Leonard, 2015). According to Robbins' definition, organizational culture is a system of common meanings that is shared by members and differentiates an organization from other organizations. If the behavior of the organization's members consistently reflects ethical behavior, it will be a good culture and vice versa. Therefore, good organizational culture forces members to avoid fraudulent behavior (Putra & et al., 2022). Dennison introduces four types of culture: mission, adaptability, involvement and consistency culture (Wahyuningsih & et al., 2019). The most important feature of organizational culture is its mission and vision. Organizations that do not know where they are and what their current position is, are usually misguided. Successful organizations have a clear understanding of their goals and

strategic directions, so that they define organizational and strategic goals and outline the vision of the organization (Akbarikia, Sabegh & Sadeh, 2021). The culture of adaptability or flexibility promotes norms and behaviors. By using them, the organization can discover, translate and interpret environmental symbols and new behaviors. This type of culture provides a favorable environment for the organization to create new opportunities, understand and meet customer needs, as well as, adapt to environmental changes. Involvement culture includes the dimensions of empowerment, group or team orientation and the growth and development of abilities. The emphasis of this type of culture is on the involvement and participation of employees in the work according to the changing and accelerating expectations of the organization's environment. Consistency provides a central source of integration, coordination and control. Adaptive organizations develop a mindset and a set of organizational systems that create an internal governance system based on social support (Xuan, Hao & Phuc, 2019). Such organizations also tend to be effective because they have strong cultures that are highly adaptive, well aligned, and well-integrated. Behavior is rooted in a set of core values, and leaders and followers are skilled at reaching agreement even when there are different views. This type of adaptability is a powerful source of consistency and internal integrity that comes from a shared mindset and a high degree of compatibility (Mojibi, Hosseinzadeh & Khojasteh, 2015).

Another factor influencing the implementation of lean processes is the

coaching leadership style (Tortorella & et al., 2020). Coaching means the process of continuous accompaniment and support in order to remain firm in one's goals and objectives, and in simpler words, it is the art of facilitating activities, learning stages, and most importantly, the individual's progress, which continuously focuses on the progress and growth of the coachee.(Naderi & et al.,2020)

Coach-oriented leadership style means that the leader uses coaching as the main method to achieve desired results (Berg & Karlsen, 2016). Coach-oriented leadership includes listening, helping, supporting, developing and removing obstacles and also empowering (Karlsen & Berg, 2020 :358). Coach-oriented leaders can encourage subordinates to develop their potential through coaching techniques such as training, support, participation, and rewards (Kim& et.al, 2014). Developing the potential of subordinates enables them to improve their ability. Leaders who take a coach-oriented approach help employees increase their personal growth by developing their visions. These leaders support and challenge employees by helping them achieve their personal development goals. Of course, this method has almost no effect when employees are not willing to learn and give feedback. Coaching leaders are interested in learning, improving self-awareness, and further character development. This can lead to more effective management. The coaching style based on two-way communication is very effective, especially when the employee lacks the necessary knowledge and skills and has low commitment and motivation (Berg & Karlsen, 2016). Coaching can introduce

the desired behavior and lean thinking into the organization and help eliminate waste in the organization by focusing more on what creates value. Coaching can therefore be considered as a way to support managers and employees, both internally and externally, to control complexity and support the intended work. Coaching also inspires employees to improve their work practices (Gortz, 2015).

Schools as a social organization are facing unpredictable environmental complexities. Among these complexities are the spread of Covid-19, as well as, the necessity of the virtual and combined education. In order to survive, schools need to adapt to these complexities, and adaptation requires change. On the one hand, the effectiveness of adaptation requires a suitable organizational culture, and on the other hand, it requires lean behaviors such as humility, calmness, patience, wisdom, and objectivity. It is obvious that the effectiveness of organizational culture requires a powerful leader who can ask questions, communicate openly, provide feedback and a suitable context for the emergence and strengthening of lean behaviors. Therefore, according to the researcher, it can be important to examine the types of organizational culture as the context of the organization and coaching leadership as a mediator and lean behaviors as a dependent variable.

According to the above mentioned, although the researches have examined the effect of organizational culture on lean production, the effect of organizational culture on lean behavior has not been examined either inside or outside the country. Also, in researches, organizational culture has been examined in general. At the same time,

the role of organizational culture of lean behaviors has not been researched. Therefore, this research aims to scientifically answer the question that what kind of organizational culture can lead to lean behaviors of school principals with the mediation of coaching leadership?

Theoretical foundations

Organizational Culture

Andrew Pettigrew was the first to propose the concept of organizational culture (Pavlova, 2020). Organizational culture is shared beliefs, principles, standards and assumptions that shape behavior by creating commitment, guidance and creating integrated knowledge (Liu & et al, 2022). There are different views and models about organizational culture. One of the most important ones is Denison's model. Denison distinguishes four types of organizational culture including: adaptability culture, involvement culture, consistency culture and mission culture (Kinyua & Muchemi, 2021). Adaptable organizations are driven by their customers, take risks and learn from their mistakes, and have the ability and experience to create change. They are constantly changing the system so as to improve the collective capabilities of organizations to create value for their customers (Mojibi, Hosseinzadeh & Khojasteh, 2015). Organizations that focus on adaptability understand the dynamism, change, and ways to improve what is going on within the organization. Organizations that are adaptable respond quickly to customer feedback and the external market, they also have more influence and are pioneers and creative in their specific industries (Burch-Parker, 2021). Internal and external consistency can be considered as an advantage and a kind

of superiority for organizations (Akbarikia, Sabegh & Sadeh, 2021). Adaptability culture is described as a range of cultural characteristics that enable an organization to be more adaptable to environmental changes by helping organizations anticipate the changes (Sharma & et.al, 2021). adaptability culture includes the following three indicators:

Organizational learning: The organization interprets the received information and, in this way, obtains opportunities for creativity. Finally, creativity leads to the development of new opportunities in the organization. **Customer-oriented:** the organization understands its customers and reacts or gives feedback to them, anticipates their needs and reflects customer satisfaction. **Providing the context for change:** Organizations are able to create solutions to create compatibility so that through them they can face the necessary changes. The organization must have the ability to understand the open and commercial space and be able to provide a solution for it (Ardalan, 2012).

An organizational culture known as "involvement" strongly encourages employee participation and creates a sense of ownership and responsibility. Instead of formal, explicit and bureaucratic control devices, they rely on informal, voluntary and implicit control systems. Receiving input from organization members increases the quality of decisions and improves their implementation (Xuan, Hao & Phuc, 2019). In such a culture, employees must be equipped with skills, tools and resources to use in making decisions. Trust and cooperation are intertwined. Trusting an employee by delegating responsibility and making decisions

may lead to a sense of ownership. As a result, the loyalty, productivity and success of the organization increases (Muda & Ismail, 2021). Involvement culture includes: 1. empowerment, it means to continuously equip employees with a series of skills to face organizational needs and challenges (Ardalan, 2012), 2. Group orientation: i.e., employees feel that they are jointly responsible with their colleagues, and 3. Growth and development of abilities, empowering employees allows them to manage their own work and a kind of sense of responsibility and ownership is created in them (Kassem & et al, 2019). Research has shown that an organizational culture that encourages learning, communication, knowledge sharing, collectivism, soft interpersonal skills, such as small group problem solving, training employees to perform multiple tasks, customer involvement, and continuous improvement has a significant impact on the effectiveness of lean practices. (Bortolotti, Boscarri & Danese, 2015). The attribute of consistency is also critical to achieve internal integration based on its ability to facilitate the coordination of activities. In fact, the culture of consistency is the answer to the question: Does the organization know the market and customers correctly to turn them into objective actions? The evaluation results show respect for cultural values through the effectiveness of business processes and systems, which are also known as compatibility (Tien&Anh, 2018). The organizational culture of consistency includes three indicators, which are: 1. Core values: It refers to the degree to which the members of an organization share a set of values and a recognition that makes their expectations and sense of identity

clear. 2. General agreement: The purpose is to agree on important issues and reconcile differences. The organization is able to reach an agreement on organizational issues, and the agreement defines the boundaries of the issues and creates the ability to resolve disputes. 3. Coordination and integration: the organization's missions have the ability to reach a common goal, and the boundaries of the organization are not an obstacle to doing the work (Langat & Lagat, 2017).

Mission culture covers setting strategic direction and intent, and setting strategic goals and vision for the organization. Organizations that get a high score for a mission culture will be able to manage their external environment by achieving consistency. Mission-oriented culture has the following three indicators: Strategic orientation: the organization has a clear mission that regulates the work of people. The mission is accompanied by a long-term vision and is clearly explained to all employees. The organization develops a strategy to implement and link its future goals. Long-term and short-term goals: The organization's leaders agree on a set of short-term and long-term goals that are directly related to the organization's mission. These organizational goals are challenging, achievable, and the organization has a mechanism to measure progress towards these goals on an ongoing basis. Vision: Organizational leaders and other employees agree on their vision of the future and use short-term activities to achieve desired results without compromising any of them. The vision of the organization is able to attract attention and inspire employees (Kassem & et.al, 2019).

Coaching leadership

Many researches consider the origin of coaching in Homer's *Odyssey*. However, the use of coaching as a common practice by managers began in the 1980s. The Organizational Leadership Council conducted a study of 34 organizations in 2002. They found that the fundamental difference between low-performing and high-performing organizations was the usage of coaching principles. The leader as a coach is related to previous leadership theories, such as transformational leadership by Bass and Avolio (1994), in terms of similarities between specific characteristics, such as personal cognition, intellectual stimulation, and inspirational motivation. Some researchers believe that coach-oriented leadership style refers to a type of positive leadership in which the leader motivates employees through appropriate coaching techniques and provides sufficient resources and support to enhance the employee's ability to study and work (Koopman & et. al., 2021:139). In fact, coach-oriented leadership focuses on improving and developing cognitive skills and intellectual potential of employees. As a result, it creates a win-win situation for employees and organizations by creating a good leader-member interactive relationship (Huang & Hsieh (2015). Research studies show the existence of eight key characteristics for coaching leadership, which are classified into four dimensions:

-Working alliance: 1. Development of working alliance. It refers to a strong and safe relationship that helps transparency and mutual respect and creates a shared meaning and commitment between the leader and the employees. (Karlsen & Berg, 2020). -

Open communication: 2. Active, empathic and compassionate listening 3. Powerful questioning. Coaching leaders help employees to freely express their needs, feelings and ideas through powerful techniques of questioning, active listening, empathy and compassion. - Learning and development: 4. Facilitating development 5. Providing feedback 6. Identifying and developing strengths. Another dominant behavior of managers and leaders as coaches is to provide opportunities for employees to develop and engage in continuous learning that effectively guides them toward desired outcomes. Furthermore, coaching leaders are most effective when they provide constructive feedback and help employees to identify, develop and use personal strengths. (Karlsen & Berg, 2020). - Progress and results: 7. Planning and goal setting 8. Progress management. Coach-oriented leaders support their employees in setting individual goals and help employees monitor and evaluate themselves for continuous improvement (Dahling & et al, 2016).

Lean Behaviors

The starting point of “Lean” is that waste exists in the material world. At first, the lean philosophy was only used in production, but later it was adapted to all aspects of the organization's business and led to lean thinking (Koskela & et al, 2020). Lean leaders are coach, mentor, and inspire to the organizations to use Lean as a standard. Lean leadership is based on going and seeing, asking questions, helping employees' vision, active listening, problem solving, empowerment, teamwork, and using collaboration and problem-solving tools. Therefore, lean leadership is a combination of mastering in lean

content and lean competence. (Flumerfelt & Wenson, 2019).

Lean behaviors are those behaviors that create added value (Ljungblom, 2012). Emiliani (1998) stated that an organization needs at least 5 to 10 years of continuous work and commitment to properly achieve lean behavior. (Kallassy & Hamzeh, 2021). In this regard, lean leadership depends on a set of behaviors such as humility, calmness, trust, objectivity, patience and wisdom in order to guide the organization towards the goals and strategy they are looking for by using the available resources in the best possible way (Hussein & Al-Zubaydi, 2020). Studies show that 80% of efforts in lean implementation are spent on changing the practices and behaviors of leaders and ultimately their mindset (Bhasin & Found, 2020). The review of the research shows that among lean behaviors, humility, calmness, wisdom, objectivity, trust and patience have been emphasized, which are defined as follows: Humility: emphasizes how to think in an acceptable way and by all parties dealing with the organization regarding the implementation of its operations (Hussein & Al-Zubaydi, 2020). Calmness: In this behavior, the lean leader should focus on the essence of the problem and avoid side factors when facing multiple problems due to high workload and environmental changes and when making decisions (Schwagerman & Ulmer, 2013). Wisdom: This behavior emphasizes the ability of lean leadership to balance the scarce resources available in the organization and the numerous activities and tasks it performs, especially in the context of the desired strategy (Halling & Renstrom, 2015). Objectivity: The rational approach of lean leadership

with human resources, regardless of many personal characteristics and secondary factors that can affect them (Mulders, 2016). Trust: Lean leadership has full confidence in employees' ability to achieve success (Thuresson & Östman, 2017). Patience: The lean leader has patience in investment, enthusiasm, energy, skill to achieve coherence and prevent laziness and inactivity in the long term more than in the short term (Puvanavaran, 2012).

Research Background

Tanudiharjo & et.al, (2021), in a research study, investigated the factors affecting lean implementation and concluded leadership and organizational culture are the most important factors in successful lean implementation. Leadership is important in achieving a successful lean implementation, as the right leaders are responsible for teaching employees the concepts and principles of lean. A lean organization must exhibit a primary culture that allows its employees to standardize their work. Such standardization not only identifies and minimizes errors in the work process, but also reduces waste. (Tortorella & et al, 2020) investigated the impact of organizational culture and leadership styles and the implementation of lean production in a research. They examined 225 leaders from manufacturing companies in different stages of lean production. The respondents used an analytical and cluster approach, respecting the ethical principles. Based on the dominant organizational culture, leadership styles and levels of lean production were investigated. The difference in frequencies among the clusters was tested. Their research showed the role of organizational culture and leadership style on the lean production. They also

identify coaching leadership style was an effective leadership style in lean production. (Hussein & Al-Zubaydi, 2020) examined the reflection of lean leadership behaviors in strengthening the strategic balance of business organizations. Their statistical sample was 227 senior leaders of a private college in Iraq. In their research, micro behaviors, Calmness, humility, patience, trust and objectivity were considered as lean behaviors. The research results showed that there was a positive and significant relationship between the strategic balance of the organization and lean behaviors.

Ziskovsky & Ziskovsky consider strong and stable educational leadership as a prerequisite for successful implementation of lean processes in schools. (Taherimashhadi & Ribas, 2018) in the research of a model for the alignment of organizational culture with lean culture reviewed the researchers conducted around lean in different databases since 1996 and concluded that organizational culture is a key factor in the success of lean programs. (Paro & Gerolamo, 2017) in the research of organizational culture and lean programs in a qualitative method, examined 51 experts responsible for the implementation of lean production in different sectors of industry in Brazil. They concluded that the successful implementation of lean production depends on its alignment with the organizational culture. (Ghavidel, 2016) in the study of lean management and its application in the world of education considered the four main factors of organizational culture, leadership, structure and production as the main elements of lean management. They stated that the philosophy of education and educational justice should be taken

into consideration in the process of lean implementation. (Kołodziejczak, 2015) investigated the impact of the coaching process as a modern method and its relationship with the organizational culture in the research of coaching along organizational culture. The research results showed that the use of coaching in organization management can gradually model or change organizational culture. (Marksberry, 2010) investigated the behaviors of operational team leaders in the social and technical aspects of Toyota. He concluded that task-oriented behavior is more successful for short-term activities and relationship-oriented behavior is more successful for long-term activities. (Van Dun, Hicks, & Wilderom, 2017) investigated the dominant values and behaviors of middle managers in lean implementation and concluded that relationship-oriented behavior (54.97), task-oriented behavior (26.75), change-oriented behavior (01.01) 13) and anti-production behavior (5/27) is effective in lean implementation. The role of

organizational culture in the successful implementation of lean was investigated by (Bortolotti, Boscari & Danese, 2020). The research population was the manufacturing plants of ten countries including America, China, Austria, Germany, Finland, Spain, South Korea, Sweden, Japan and Italy. The results showed that the culture that emphasizes higher collectivism, human orientation and futurism is more successful in implementing lean production. According to the theoretical foundations, the conceptual model of the research can be designed and compiled in the form of six variables and based on nine hypotheses. Then, the conceptual structure can be examined and tested. Therefore, regarding the importance and priority of variables, organizational culture of mission, consistency, involvement and adaptability were determined as independent variables, coaching leadership as mediating variable and finally principals' lean behaviors as dependent variables.

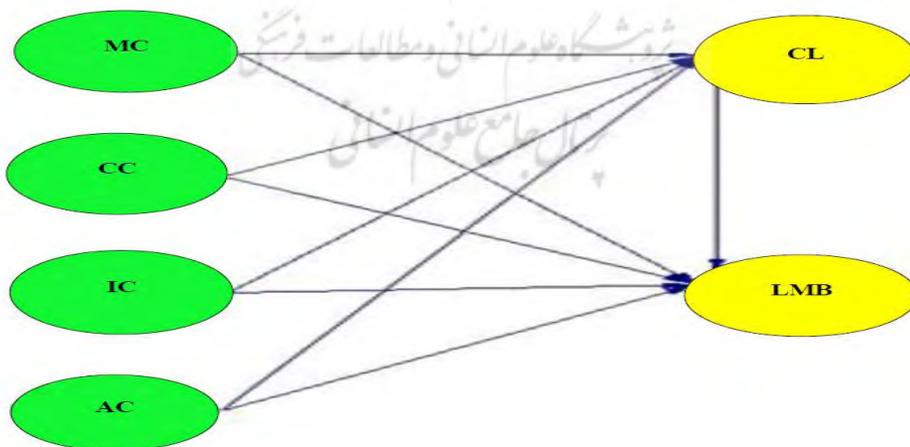


Figure 1: Conceptual model of the research

Mission Culture (MC), Consistency Culture (CC), Involvement Culture (IC), Adaptability Culture (AC), Coaching Leadership (CL), Lean Behaviors (LBM)

Research Assumptions

Direct effects

1. The mission culture of schools has an effect on the coaching leadership of primary school principals.

2. The consistency culture of schools has an effect on the coaching leadership of primary school principals.

3. The involvement culture of schools has an effect on the coaching leadership of primary school principals.

4. The adaptability culture of schools has an effect on the coaching leadership of primary school principals.

5. The mission culture of schools has an effect on the lean behaviors of primary school principals.

6. The consistency culture of school has an effect on the lean behaviors of primary school principals.

7. The involvement culture of schools has an effect on the lean behaviors of primary school principals.

8. The adaptability culture of schools has an effect on the lean behaviors of primary school principals.

9. Coaching leadership of primary school principals has an effect on their lean behaviors.

Indirect effects

10. Mission culture of schools with the mediation of coaching leadership of primary school principals has an effect on their lean behaviors.

11. The consistency culture of school has an effect on their lean behavior through the mediation of the coaching leadership of the principals of primary schools.

12. The involvement culture of schools has an effect on their lean behavior through the mediation of the coaching leadership of the principals of elementary schools.

13. The adaptability culture of schools with the mediation of coaching

leadership of primary school principals has an effect on their lean behavior.

Research Methodology

According to the conceptual model test derived from theories and experimental studies, the type of research was quantitative. Since we intended to examine the relationships between variables in the form of a model, the method was correlation. Since the aim of the research was to examine the structural relationships between six variables in the form of several simultaneous regression equations and to examine the fit of the model, the correlation-covariance matrix structural equation modeling approach was used.

Statistical population and sampling method

The research population was all primary school teachers in Ilam province in the academic year of 2019-2019(N= 2909). Of these, 1907 were women and 1002 were men. To determine the sample size, Cochran's formula was used ($\alpha = 0.05$; error value $= 0.05$ and $P/O = 0.5$). Therefore, the sample size of 339 teachers was determined. According to the clusters of the research population such as city/region (14 C/R) and gender (M/F), proportional stratified random sampling method was used (Abdanan (11 M & 23 F), Ilam (18 & 67), Ivan (22 & 12), Badreh (5 & 5), Cherdavel (14 & 13), Chavar (3 & 4), Dere Shahr (20 & 10), Dehhran (6 & 18), Zarin Abad (3 & 4), Sirvan (7 & 7), Malekshahi (13 & 7), Musian (8 & 9), Mehran (14 & 6) and Helilan (4 & 6). In total, 222 female teachers (65%), and 117 male teachers (35%) were selected. After determining the research sample and permission with the General Department of Education of Ilam, information was collected through

electronic questionnaires and sent to the teachers' SHAD web page. The information was collected and analyzed in several steps in two months.

Incomplete and outliers were removed. The data bank was created for analysis and ready for processing.

Table 1: research sample & population

	District	Total	Female	Male
1	Abdanan	34	23	11
2	Ilam	85	67	18
3	Apvan	34	22	12
4	Badreh	10	5	5
5	Cherdval	27	14	13
6	Chevar	7	3	14
7	Dareh Shahr	30	20	1
8	Dehloran	24	18	6
9	Zarin Abad	7	3	4
10	Sirvan	14	7	7
11	Malekshahi	20	13	7
12	Moosiyani	17	9	8
13	Mehran	20	14	6
14	Holilan	10	4	6
	Total	339	222	117
		100./.	65./.	35./.

Measurements of the constructs

Organizational Culture Types Questionnaire:

Dennison's Organizational Culture Questionnaire (2000) was used to measure organizational culture types. This questionnaire consists of thirty-six items in four types of organizational culture, including mission culture (9 items and 3 subscales of strategic orientation, long-term & short-term goals, and vision), consistency culture (9 items and 3 subscales of core values, agreement, coordination and integration), involvement culture (9 items and 3 subscales of empowerment, group orientation and growth and development of abilities) and adaptability culture (9 items and 3

subscales of context for changes, customer orientation, and organizational learning) in the 5-point Likert scale. Peleaz Zuborbuhler et al.'s coaching leadership questionnaire (2021) includes 16 questions in four dimensions of working alliance (questions 1 to 3); open communication (questions 4 to 7); learning and development (questions 8 to 12) and development and consequences (questions 13 to 16) on a seven-point Likert scale. A researcher-made questionnaire of lean behaviors includes 30 questions in 6 dimensions of humility (questions 1 to 5), calmness (questions 6 to 9), wisdom (questions 10 to 14), objectivity (questions 15 to 19), patience (questions 20 to 24) and trust

(questions 25 to 30) in five-point Likert scale.

Cronbach's alpha method was used to determine the reliability of the research tool (organizational culture (0.96), mission culture (0.91), consistency culture (0.82), involvement culture (0.91), adaptability culture (0.80); coaching leadership (0.93), work alliance (0.89), open communication (0.84), learning & development (0.89) development & consequences (0.88); lean behaviors (0.81), humility (0.88), calmness (0.91), wisdom (0.92), objectivity (0.89), patience (0.80) and Trust (0.91)). Therefore, the questionnaires have appropriate reliability. To determine the validity of the tool, the techniques of content validity ratio, exploratory factor analysis and confirmatory factor analysis were used. According to the standard questionnaires of organizational culture and coaching leadership, only the content validity ratio and confirmatory factor analysis of the second order were used. Therefore, the content validity ratio of organizational culture questionnaire was 0.96, which according to the minimum acceptable CVR value for ten experts (0.62), it can be said that Denison's adaptability culture questionnaire has content validity. Also, its fit indices in the second-order confirmatory factor analysis are: chi-square value (1036.8), degrees of freedom (576), ratio of chi-square to degrees of freedom (1.80), RMSEA (0.048), CFI (0.97). GFI (0.93) and AGFI(0.92).

Coaching Leadership Questionnaire:

In order to measure coaching leadership, the coaching leadership questionnaire of Pilaz Zoborbuhler et al

(2021) was used. This scale has 16 questions in the form of 4 dimensions of working alliance (Q 1 to 3); open communication (Q 4 to 7); Learning and development (Q 8 to 12) and progress and results (Q 13 to 16). Cronbach's alpha method was used to determine the reliability of the research tool. The alpha values of the coaching leadership questionnaire, work alliance dimension, open communication dimension, learning and development dimension, and progress and results dimension were respectively. /93, /89, /84, /89 & /88. In order to determine the validity, considering the standardization of the coaching leadership questionnaire, only the content validity ratio and second-order confirmatory factor analysis were used. The content validity ratio of the coaching leadership questionnaire was 0.83 and considering the minimum acceptable CVR value for fifteen experts (0.49), it can be said that the coaching leadership questionnaire had content validity. Also, its fit indices in the second-order confirmatory factor analysis were: chi-square value (177.51), df (100), X/df (1.77), RMSEA (0.047), (97) (0.0) CFI, (0.94) GFI and (0.93) AGFI.

Lean Behavior Questionnaire:

Finally, the researcher-made questionnaire of lean behaviors in the form of 30 questions and 6 dimensions of humility (Q 1 to 5), calmness (Q 6 to 9), wisdom (Q 10 to 14), objectivity (Q 15 to 19), patience (Q 20 to 24)) and trust (Q 25 to 30) were used. Cronbach's alpha method was used to determine the reliability of the research tool. Alpha values of pure behavior questionnaire, humility dimension, calmness dimension, wisdom dimension, objectivity dimension, patience dimension, and trust dimension were

respectively 0/81, 0/88, 0/91, 0/92, 0/89, 0/80 & 0/91. reported. Because of the researcher-made lean behavior questionnaire, the content validity ratio of the questionnaire was checked first, then exploratory factor analysis with varimax rotation was performed, and finally second-order confirmatory factor analysis was used. The content validity ratio of the lean behavior questionnaire of school principals was 0.72, which according to the minimum acceptable CVR value for fifteen experts (0.49), it can be said that the questionnaire of lean behavior of school principals has content validity. In the exploratory factor analysis, KMO value was 0.90 and Bartlett value was 7036.272 with 435 degree of freedom and significant at 0.01 level. According to the results of the exploratory factor analysis of the data, six factors with an eigenvalue greater than (1) were observed, which were able to explain 71% of the variance of lean behaviors. According to the results of the second-order confirmatory factor analysis, it can be said that the value of the explained variance of lean behaviors is 0.632, which according to the t-value (12.88), the explained variance is significant at the 0.01 level. The fit indices of the lean behavior scale include chi-square value (766.08), degree of freedom (399), and ratio of chi-square to degrees of freedom (1.92), RMSEA (0.052), CFI (0.97), GFI (0.93) and AGFI (0.90). Therefore, it can be said that the lean behavior questionnaire has a suitable and acceptable fit. The value of the explained variance of humility by five items was 0.63, which according to t value (13.78), the explained variance is significant at the 0.01 level. The value of the explained variance of calmness by four items was 0.731, which according to t-value

(15.39), the explained variance is significant at the 0.01 level. The value of the explained variance of wisdom dimension by five items was 0.716, which according to t -value (14.26), the explained variance is significant at the 0.01 level. The value of the explained variance of objectivity dimension by five items was 0.625, which according to t -value (12.41), the explained variance is significant at the level of 0.01. The amount of explained variance of patience by five items was 0.462, which according to t -value (8.57), the explained variance is significant at the level of 0.01. The amount of explained variance of the trust dimension by six items was 0.636, which according to t -value (13.01), the explained variance is significant at the 0.01 level. The factor loading values of the items in the first order were in the range (0.53 to 0.91) with t -value greater than 1.96, which indicate the significance of the first order factor loadings. The factor loading values of the dimensions of the questionnaire in the second order were in the range (0.72 to 0.75940) with t-value greater than 1.96, which indicate the significance of the factor loadings of the second order. According to the results of the measurement models of the questionnaires; It can be said that the research questionnaires have a suitable and acceptable fit (validity). To analyze the data, the statistical techniques of frequency distribution, mean, standard deviation, Pearson correlation matrix and structural equation modeling were used by Lisrel 10.30 software.

Research findings

Description of the sample

117 of the respondents (35%) are men; And 222 respondents (65%) are women. 107 respondents (31.5) are under 30 years old; 120 respondents

(35.4) are between 31 to 40 years old; 84 of the respondents (24.7%) are between 41 and 50 years old and 28 of the respondents (8.4%) are over 50 years old. 88 respondents (26/0) have less than 5 years of experience; 126 of the respondents (1/37) have 6 to 10 years of experience; 56 of the respondents (16/5) have 11 to 15 years of experience; 52 of

the respondents (15/2) have 16 to 20 years of experience and 17 of the respondents (5/2) have more than 20 years of experience. 204 of the respondents (0.60) have a bachelor's degree or lower; 108 of the respondents (0.32) have a master's degree and 27 of the respondents (0.8) have PhD.

Table 2: Correlation matrix of research variables and descriptive indicators

<i>variable</i>	<i>Mission culture</i>	<i>Consistency culture</i>	<i>Involvement culture</i>	<i>Adaptability culture</i>	<i>Coaching leadership</i>	<i>Lean behavior</i>
<i>Mission culture</i>	1					
<i>Consistency culture</i>	0/45	1				
<i>Involvement culture</i>	0/31	0/28	1			
<i>Adaptability culture</i>	0/29	0/32	0/49	1		
<i>Coaching leadership</i>	0/59	0/55	0/69	0/72	1	
<i>Lean behavior</i>	0/61	0/57	0/66	0/65	0/63	1
<i>Mean</i>	2/42	2/36	2/27	2/42	3/35	2/18
<i>Sd</i>	0/936	0/750	0/891	0/745	0/999	0/784
<i>Skewness</i>	0/678	0/548	0/807	0/468	-0/552	-0/592
<i>Kurtosis</i>	-0/135	0/061	0/211	-0/171	-0/232	-0/064

The mean and standard deviation of the research variables are respectively: mission culture (2.42 and 0.936); consistency culture (2.36 and 0.750); involvement culture (2.27 and 0.891); adaptability culture (2.42 and 0.745); coaching leadership (3.35 and 0.999) and lean behavior of principals (2.18 and 0.784). The Skewness and Kurtosis indices of the variables indicate the normality of the data distribution in all research variables.

The mission culture variable has a positive and significant correlation at the 0.05 level with consistency culture (0.45), involvement culture (0.31), adaptability culture (0.29), coaching leadership (0.59) and principals' lean behaviors. (0.61). The consistency culture variable has a positive and significant correlation at the 0.05 level with involvement culture (0.28), adaptability culture (0.32), coaching leadership (0.55) and principals' lean behaviors (0.57). The involvement

culture variable has a positive and significant correlation at the 0.05 level with the culture of compatibility (0.49), coaching leadership (0.69) and principals' lean behaviors (0.66). Adaptability culture variable has a positive and significant correlation at

0.05 level with coaching leadership (0.72) and principals' lean behaviors (0.65). The coaching leadership variable has a positive and significant correlation at the 0.05 level with principals' lean behaviors (0.63).

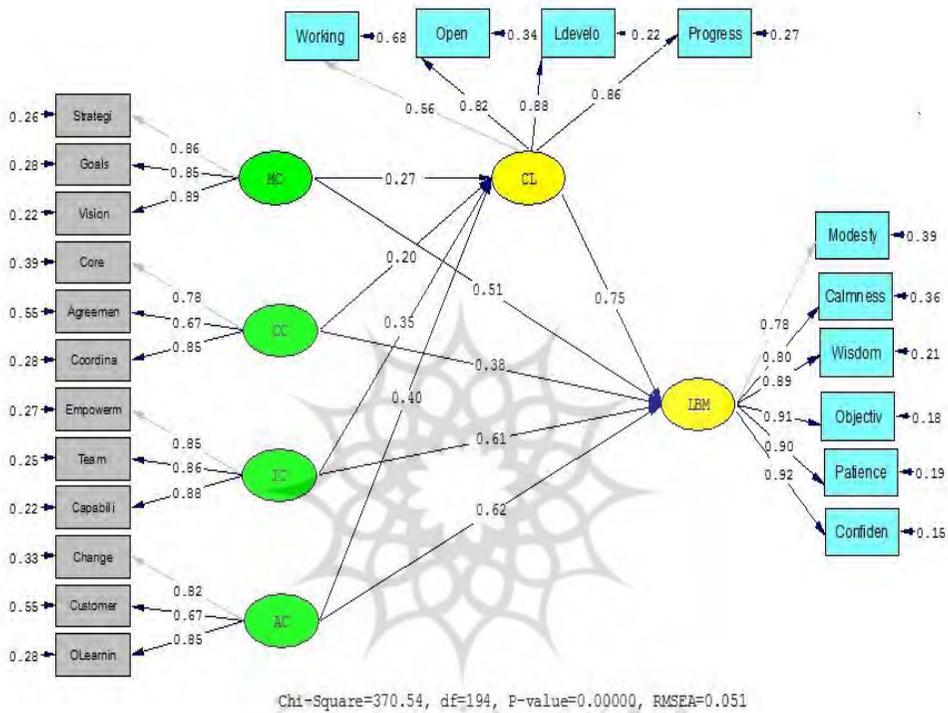


Figure 2: General empirical research model with standardized coefficients
 Mission Culture (MC), Consistency Culture (CC), Involvement Culture (IC), Adaptability Culture (AC), Coaching Leadership (CL), Lean Behaviors (LBM)

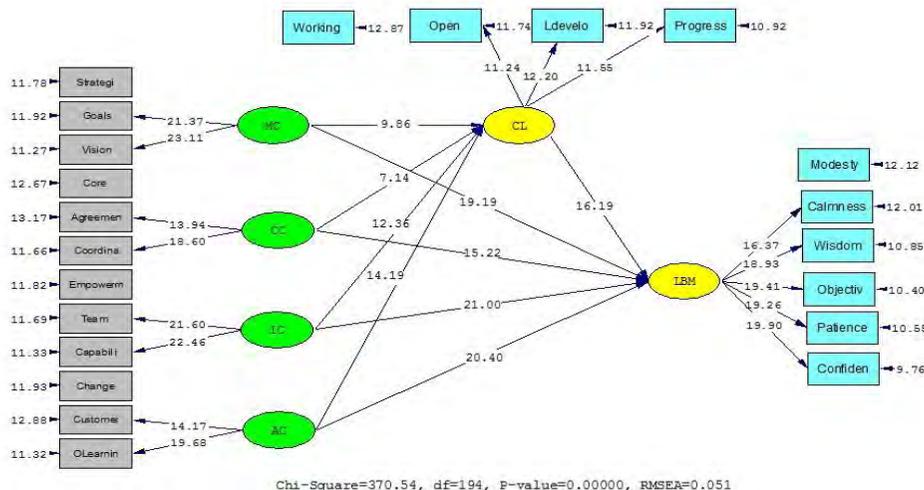


Figure 3: The general model of the T-index of the coefficients of the experimental model of the research

Mission Culture (MC), Consistency Culture (CC), Involvement Culture (IC), Adaptability Culture (AC), Coaching Leadership (CL), Lean Behaviors(LBM)

The fit indices of the model include chi-square value (370/54), degrees of freedom (194), ratio of chi-square to degrees of freedom (1/91), RMSEA (0.051), CFI (0.97), GFI (0.93) and AGFI (0.91). According to the results of the fit indices in the confirmatory path analysis model of the research, it can be said that the conceptual model has a good fit with the experimental model.

The value of the RMSEA index is in the acceptable range. The values of CFI, GFI, AGFI indices also indicate the appropriate fit of the structural model. Therefore, it can be said that the structural model of the research has a suitable and acceptable fit.

Research hypothesis test
Direct effects

Table 3: Hypothesis testing of direct effects

Hypothesis	Independent	Dependent	Path Coefficient	T	Result
1	Mission culture	Coaching Leadership	0/27	9/86	improved
2	Consistency culture	Coaching Leadership	0/20	7/14	improved
3	Involvement culture	Coaching Leadership	0/35	12/36	improved
4	Adaptability culture	Coaching Leadership	0/40	14/19	improved
5	Mission culture	principals' lean behaviors	0/51	19/19	improved

6	Consistency culture	principals' lean behaviors	0/38	15/22	improved
7	Involvement culture	principals' lean behaviors	0/61	21/00	improved
8	Adaptability culture	principals' lean behaviors	0/62	20/40	improved
9	Coaching Leadership	principals' lean behaviors	0/75	16/19	improved

*T values equal to and greater than 1.96 are significant at the 0.05 level.

The results of structural equation modeling analysis show that:

- The mission culture of schools has a direct and significant effect on the variable of leadership and coaching of school principals (0.27) (t-value= 9.86). The consistency culture of schools has a direct and significant effect on the variable of coaching leadership of school principals (0.20) (t-value= 7.14). The participatory culture of schools has a direct and significant effect on the coaching leadership variable of school principals (0.35) (t-value =12.36).
- The mission culture of schools has a direct and significant effect on the variable of lean behaviors of school principals (0.51)

- (t-value =19.19). The culture of school consistency has a direct and significant effect on the variable of lean behavior of school principals (0.38) (t-value =15.22). The involvement culture of schools has a direct and significant effect on the variable of lean behavior of school principals (0.61) (t-value= 0.00). 21.) School adaptability culture has a direct and significant effect on the variable of lean behaviors of school principals (0.62) (t-value =20.40).
- Coaching leadership of school principals has a direct and significant effect on the variable of lean behaviors of school principals (0.75) (t-value= 16.19).

Indirect effects: single mediator

Table 4-: Hypothesis test of single mediator indirect effects

Hypothesis	independent	mediator	dependent	Path coefficient	T	Result
10	Mission culture	Coaching Leadership	principals' lean behaviors	0/2025	8/42	improved
11	Consistency culture	Coaching Leadership	principals' lean behaviors	0/15	6/53	improved
12	Involvement Culture	Coaching Leadership	principals' lean behaviors	0/2625	9/82	improved
13	Adaptability culture	Coaching Leadership	principals' lean behaviors	0/30	10/67	improved

*T values equal to and greater than 1.96 are significant at the 0.05 level.

The results of structural equation modeling analysis show that the mission culture of schools through the mediating role of the coaching leadership has a significant indirect effect (0.2025) on the lean behaviors of school principals (t-value=8.42). The consistency culture of schools through the mediating role of the coaching leadership has a significant indirect effect (0.15) on the lean

behaviors of school principals (t-value=6.53). The involvement culture of schools through the coaching leadership has a significant indirect effect (0.2625) on the lean behavior of school principals (t-value=9.82). School adaptability culture through the coaching leadership of elementary school principals has a significant indirect effect (0.30) on the lean behaviors (t-value=10.65).

Table 5: The effects of types of organizational culture and coaching leadership on principals' lean behaviors

	<i>Variable</i>	<i>Type</i>	<i>Value</i>	<i>T</i>
1	Mission culture	Direct	0/51	19/1
		Indirect	0/2025	8/42
		total	0/7125	21/33
2	Consistency culture	Direct	0/38	15/22
		Indirect	0/15	6/53
		total	0/53	16/21
3	Involvement culture	Direct	0/61	21/00
		Indirect	0/2625	9/82
		total	0/8725	17/43
4	Adaptability culture	Direct	0/62	20/40
		Indirect	0/30	10/65
		total	0/92	22/08
5	Coaching Leadership	Direct	0/75	16/19
		Indirect	-	-
		total	0/75	16/19
	Variance of lean behaviors	estimated	0/59	13/29
		error	0/41	10/01

*T values equal to and greater than 1.96 are significant at the 0.05 level.

Four types of organizational culture and coaching leadership are able to explain 59% of the variable variance of lean behaviors of school principals.

Conclusion

The purpose of the present study was to investigate the role of school organizational culture in the lean behaviors of elementary school principals with the mediating role of

Therefore, according to the t-value (16.19), the explained variance is significant at the 0.05 level.

their coaching leadership. Considering the large number of research hypotheses and focusing on presenting a comprehensive model based on the types of organizational culture, as well as, coherent and logical explanation of

the model and its relationships, the results are explained in four main parts and the final summary is presented. The results showed that:

Mission culture - Coaching leadership - Lean behaviors:

1) The results regarding the positive effect of mission culture on the lean behaviors of school principals were consistent with the results of Tanudiharjo & et al (2021), Tortorella & et al, (2020), Paro & Gerolamo (2017) and Taherimashhadi & Ribas (2018). The results regarding the positive indirect effect of mission culture of schools through the educational leadership of principals on the lean behaviors were consistent with the results of Tanudiharjo & et. Al (2021), Tortorella & et al (2020), Paro & Gerolamo (2017) and Marksberry (2010).

Therefore, it can be said: The mission defines the goals of the organization and provides a sense of meaning to the members of the organization. Thus, mission emphasizes consistency and direction and helps the organization coordinate its relations with the outside world. Organizations that have well defined and understood a specific set of values and emphasize strategic intent, goals, and vision have high performance in mission. Mission has two main effects on the performance of an organization: First, it provides mission, purpose, and meaning, as well as a wide range of non-economic reasons why an organization is necessary. The mission provides purpose and meaning for the organization by defining the social role of the organization and determining the importance of the individual role. Second, the mission introduces the organization and its members to a clear course of action and expresses its vision

for the future (Li & Vinitwatanakhun, 2022). Therefore, the clarity of the organization's goals and strategy can reduce waste and strengthen lean behaviors in the organization. Clarity of the organization's goals and strategy and individual's correct understanding of their role in the organization can lead to the emergence and strengthening of lean behaviors. Being aware and committed to the organization's goals and having a correct understanding of the organization's vision makes managers pay attention to the organization's resources and limitations when making decisions, avoid waste issues, and try to do things in a transparent and legal manner. It also causes to avoid prejudice in problems and have the ability to show logical thinking in these situations. Obviously, if individuals do not know what the organization expects from them and what its priorities are, it is unlikely that they will be able to show lean behavior.

For lean performance, five components should be considered. The five components are environment change, leadership, culture, employee empowerment and communication (Maruthu, Dhileep & Manivannan, 2018). Many researchers have emphasized that organizational culture has a strong effect on leadership styles (Aydin, 2018). Although many factors influence culture, organizational cultures primarily reflect their leaders. Mission culture is the guideline to carry out the leader's coaching activities. Mission culture by defining the strategy, mission, goals and vision of the organization helps the coaching leader to direct and target his activities. The coaching leader, while increasing employees' awareness of the organization's mission and drawing a

clear vision of the organization's future, causes the individual growth and development of employees and the realization of the organization's goals, by using intelligent questions, active listening and providing appropriate feedback.

Coaching is a valuable tool for developing and strengthening lean behaviors. Creating lean behaviors requires changing mindsets and enlightenment. Coaching leaders help employees understand effective activities in the organization by using continuous questions and providing correct feedback. For example, one of the lean behaviors is objectivity. Objectivity in the organization means that the manager and employees should act impartially, legally and regardless of marginal factors in making decisions. Coaching leaders create transparency and, as a result, strengthen trust in the organization by giving appropriate answers and removing ambiguity for the people of the organization. Another example of lean behavior is humility. Humility in the organization means paying attention to the opinions of the organization's stakeholders in the implementation of the organization's operations. Coaching is a process that can facilitate people's participation in the organization's operations.

Leadership and organizational culture are the most important factors in the successful implementation of lean. Leadership is important in achieving successful lean implementation. Leaders are responsible for teaching lean concepts and principles to employees. A lean organization must exhibit a basic culture that allows its employees to standardize their work. Such standardization not only identifies and minimizes errors in the work

process, but also reduces waste (Tanudiharjo & et.al, 2021). Coaching can instill lean behavior and mindset into the organization. Coaching can be used as a way to support managers and employees, both internally and externally, to control complexity. Lean leaders are advisors, coaches, and inspirers. They want to use lean as a standard (Flumerfelt & Wenson, 2019). It is thought that the existence of a mission and a coaching leadership style can be a suitable context for lean behaviors. Drawing the correct picture of the future of the organization and its goals, leads coaching leaders to emergence behaviors such as calmness, humility, wisdom, objectivity, patience and trust in organization by using powerful questions, providing appropriate feedback to employees and planning for their growth and development. As a result, it reduces the waste in the organization and give the organization maximum efficiency.

Consistency culture- Coaching leadership- Lean behaviors:

2) The results regarding the positive effect of the culture of consistency on the lean behaviors of school principals are consistent with Tortorella & et al (2020), Taherimashhadi & Ribas (2018) and Ghavidel (2016). The results regarding the positive indirect effect of the culture of consistency of schools through the pedagogical leadership of principals on the lean behaviors of principals are consistent with the results of Tortorella&et al (2020) and Kołodziejczak (2015).

Therefore, it can be said: Culture is a key factor in implementing lean processes. Culture determines what is right or wrong and whether an idea or process is accepted or rejected. Consistency provides a central source of

integration, coordination, and control. Adaptive organizations develop a mindset and a set of organizational systems that create an internal governance system based on social support (Xuan, Hao & Phuc, 2019). Such organizations also tend to be effective. They have strong cultures that are highly compatible, well-coordinated and well-integrated. Behavior is rooted in a set of fundamental values. Leaders and followers are skilled at reaching agreement even when there are different points of view. This type of adaptability is a powerful source of consistency and internal integrity that comes from a shared mindset and a high degree of adaptation (Mojibi, Hosseinzadeh & Khojasteh, 2015). Therefore, it can be said that in such organizations, if behaviors such as wisdom, patience, objectivity, trust, calmness, and humility are among the fundamental values of the organization, people will be fully committed to its implementation and the organization will benefit from the benefits of implementing pure behaviors. It can also be said that in organizations where there is instability and coordination and integration in the implementation of the organization's operations are at a low level, we cannot expect the emergence or strengthening of lean behaviors (Paro & Gerolamo, 2017).

Many researchers have emphasized that there is a strong relationship between organizational culture and leadership styles. There are two different views on how a culture emerges and whether leaders have an influence on shaping culture. According to some researchers, culture is the organization itself. There is something that can be manipulated in the organization. The leader can also

manage the culture to some extent. The opposite idea says that leaders have the potential to create organizational culture and influence its formation. Leaders define and maintain the organization's values, goals, mission, and vision. Therefore, they shape organizational culture (Aydin, 2018). Schein (1992) has provided the most well-known understanding of the relationship between culture and leadership. Based on his model, the founder of the organization is the creator of organizational culture. He creates an organization that reflects his values and beliefs. Over time, cultural elements penetrate the organization and with the process of socialization, the members of the organization accept the evident ideas and values that include the founder's point of view (Ardalan, 2012). The origin of organizational culture is nothing but the philosophy of its founder. This philosophy affects the indicators that are used in the selection or recruitment of people in the organization. The current actions or practices of the organization's top management lead to the formation of a general atmosphere of acceptable behavior. The extent to which people are familiar with the organization's culture depends on how well the organization can match the values that people have with what management wants in the process of selecting people (Robbins, 2014). Therefore, it can be said that organizational culture is closely related to leadership style (Pasricha, Singh & Verma, 2018). On the other hand, an organizational culture based on consistency, with an emphasis on core values, creating agreement, integration, and harmony, is a proper context for the leader to use coaching. On the other hand, coaching leadership

provides a clear picture of the basic values of the organization by using mutual asking, listening empathically, identifying weaknesses and strengths, planning and setting goals, facilitating development, managing progress and providing correct feedback. Coaching leadership creates coordination and integration and strengthens agreement in the organization.

Coaching leadership is a powerful and effective tool for developing and strengthening pure behaviors. As an example, one of the behaviors is humility. Humility means that there is an agreement between the people of the organization regarding how to carry out the operations of the organization. It seems that coaching leadership by using mutual asking, intelligent questions, active listening and providing feedback can provide a proper context for creating agreement in the organization. Another example of lean behavior is objectivity. It is believed that coaching leadership can provide a proper context for creating transparency in the organization. In general, it is believed that coaching can be used as a suitable tool to create and strengthen behaviors such as humility, calmness, wisdom, objectivity, patience and trust in the organization.

Review of research shows the conceptual connection between coaching and organizational culture. Organizational culture is a set of basic beliefs and assumptions shared among the members of the organization. If the assumptions of the organizational culture confirm the coaching in the organization, then we can expect to see evidence of the coaching style in the organization (Kołodziejczak, 2015). Coaching leaders should have a correct understanding of the organizational culture in order to be able to use it for

the benefit of the organization. Consistency culture is the context that coaching leaders can use to emergence and strengthen the lean behaviors. In an organization that is well integrated and individuals agree on the core values of the organization, the coaching process through mutual asking, correct listening and providing correct feedback can provide a proper context for lean behaviors.

Involvement culture - coaching leadership - lean behaviors

3) The result regarding the positive effect of collaborative culture on the lean behaviors of school principals is consistent with the results of Tortorella & et al (2020), Paro & Gerolamo (2017) and Bortolotti, Boscarri & Danes (2015). Involvement organizational culture has a positive indirect effect on lean behaviors through coaching leadership. This result is consistent with Tortorella & et al (2020).

Therefore, it can be said: Involvement organizational culture strongly encourages employee participation and creates a sense of ownership and responsibility. Instead of formal, explicit, and bureaucratic control systems, they rely on informal, voluntary, and implicit control systems. Accepting input from organization members increases the quality of decisions and improves their implementation (Xuan, Hao & Phu, 2019). Empowering people allows them to take control of their environment and create a sense of independence. Team orientations allow people to mutually work together toward a common value or goal and acknowledge peer accountability. Capability development is basically the development of talent by enhancing their learning and skills in order to align with the organization's

goals. The cultural characteristic of participation leads to the success of the organization by giving employees a sense of empowerment and interest in internal practices. In general, involvement focuses on bringing together and embracing employees; So that they feel independent in making decisions that are consistent with the values and mission of organizations (Burch-Parker, 2021). Involvement culture specifically emphasizes on employee participation to quickly adapt to changing needs of environment. In such a culture, employees must also be equipped with skills, tools and resources to make decisions. Trust and involvement go together. Trust to an employee with responsibility and decision-making delegation may lead to a sense of ownership. All these issues create loyalty, productivity and success, which are pleasant and very useful for increasing the performance of the organization (Muda & Ismail, 2021). It is obvious that managers who show more lean behaviors provide the basis for creating and strengthening an involvement culture. Also, an involvement culture can strengthen lean behaviors of managers. As an example, one of the lean behaviors of a manager is humility. Humility means that there is an agreement between the manager and the employees regarding how the organization operates. This is consistent with employee participation, which is emphasized by an involvement culture. Another lean behavior is calmness. A manager with lean behavior focuses deeply on issues when making decisions. He does not involve marginal issues in his decisions. It is obvious that in an involvement culture, by delegating authority, creating a sense of security, as well as, participation of employees, the

principal can examine issues from different views and make better decisions. This strengthens the culture of the organization and avoids waste in the organization. Principals who have lean behavior are well aware of the organization's resources and limitations. They avoid politicization in their work. They have a better understanding of the organization's employees and do not neglect the organization's long-term goals. They also reduce waste and repeating tasks in the organization. By emphasizing on training and learning as well as developing the capabilities of employees, lean managers, on the one hand, bring maximum benefits to the organization and on the other hand, they bring satisfaction to the employees.

Ooi, Ooi & Memon (2020) discovered that an involvement culture leads to employee-centered leadership and strong interpersonal relationships. When employees participate in the decision-making process, they pay more attention to responsibility and accountability for their actions. Thus, when the organizational culture has a high level of involvement, there is a positive relationship between employee participation in decision-making and improved performance. However, Diris et al. (2018) argue that the high level of employee participation, is due to the difficulty of identifying the responsible individual for a specific task, leads to a reduction in specialization (Kiziloglu, 2021). Researchers have emphasized on the key role of organizational culture in Lean's ability to improve operational performance. For example, they have identified specific HR practices that support Lean. Flexible staffing, like team members, they embrace change (Losonci & et al, 2017). They have also shown that an organizational culture

that fosters learning, communication and knowledge sharing supports lean. Research shows that cultural collectivism at the national or organizational level, soft communication practices such as small group problem solving, training employees to perform multiple tasks, customer involvement, and continuous improvement have a significant impact on the effectiveness of lean practices (Bortolotti, Boscarì & Danese, 2015). Lean leaders are coaches and consultants, and inspire organizations to use lean as a standard. Lean leadership is based on mutual communication, asking questions, helping employees, active listening, problem solving, empowerment, teamwork, and using collaboration and problem-solving tools. Therefore, lean leadership is a combination of lean content mastery and lean competence mastery (Flumerfelt & Wenson, 2019).

provide the context for emergence involvement culture is a suitable context for the emergence of lean behaviors. The alignment of such a culture with the coaching leadership style leads to the emergence and strengthening of lean behaviors. With close observation, mutual asking, helping to empowerment, constructive feedback to employees, active listening and teamwork, coaching leaders and strengthening of lean behaviors. They reduce waste and parallel repeated work in the organization.

Adaptability culture - Coaching leadership - lean behaviors

4) The results regarding the positive relationship between adaptability organizational culture and lean behaviors of school principals were consistent with the results of Tortorella & et al (2020), Paro & Gerolamo

(2017), De Castro Freitas & et al (2017) and Bortolotti, Boscarì & Danese (2015). The adaptive organizational culture of schools has a positive indirect effect on principals' lean behaviors through the coaching leadership. This finding is consistent with the results of Tortorella & et al (2020).

Therefore, it can be said :Research studies show that lean can maximize cost reduction in any organizational culture environment. At the same time, an organizational culture needs to be developed to maximize quality improvement, flexibility and the usage of lean. A developmental culture is the most supportive lean culture. It performs better than other individual cultures. In particular, since the impact of lean on cost performance is strong in organizational culture, using lean to reduce costs seems to be an effective strategy (Tortorella&et.al, 2020). Combining lean with human resource practices that may be related to organizational culture, such as leadership, planning, human resource management, training, and change capacity, positively affects performance. Research also shows that soft methods of communication, such as solving problems in small groups, training employees to perform multiple tasks, customer participation and continuous improvement have a significant impact on the effectiveness of lean methods (Bortolotti, Boscarì & Danese, 2015). In the lean system, respect emphasizes on the importance and value of the persons as a tool to reach the desired level of customer service. In this way, lean focuses on the well-being of the individual. At the same time, lean is only understood as a means to achieve prosperity for the organization, which is understood

through customer satisfaction. Therefore, it can be said that an organizational culture that emphasizes on an external orientation (such as a developed or rational culture) should support lean in addition to realizing operational benefits. Lean values include flexible individuals and a flexible production system. A culture that values individual and organizational flexibility (such as a team or development culture) should achieve greater operational benefits from lean (Hardcopf, Liu, & Shah, 2021).

Losonci & et.al, (2017) found that types of adaptability culture have a positive effect on Lean implementation. Lean achieves customer satisfaction through a variety of "tools". One way is to develop employees and processes that are highly adaptable. For example, production is exactly what customers want. Therefore, a developed culture that values adaptability and readiness should fit with Lean. Lean emphasizes on respect, empowerment, and accountability. , however it is a hierarchical culture that values control of information and communication. This is a poor fit with Lean, as Lean prioritizes decentralized decision-making and employee empowerment (Hardcopf, Liu, & Shah, 2021). Therefore, the culture of adaptability by helping the organization, receiving and interpreting the correct information, emphasizing on customers and providing the context for change causes the emergence and strengthening of lean behaviors. In such an organization, lean leaders pay attention to the opinions of employees in making decisions. They avoid bias and partisanship, and the law governs the organization. Managers are well aware of the organization's

resources and limitations and do not replace the organization's long-term goals for short-term interests. Leaders and decision makers of the organization have the ability to understand the environmental needs and adapt to them for the survival of the organization.

Theoretically, there is a conceptual connection between organizational culture and coaching. Edgar Schein defines organizational culture as a pattern of basic and shared assumptions that are considered valid and as a correct way of perceiving, thinking, and feeling. These "fundamental assumptions" are manifested in supporting values, and in observable organizational artifacts such as language, behavior, products, physical settings, work processes, etc. For example, an organization may have a supportive value of productive work and an underlying assumption that "people are productive or add value if they are busy." According to this basic assumption, some of the artifacts that we may see in this organization are little break times of employees. They come early and leave late. If there are underlying assumptions about the benefits of a manager's usage of a coaching style, then we would expect to see evidence of the coaching style being used. Some of these assumptions may include the importance of employee development, employee empowerment, the need or acceptance of certain leadership styles, etc. Assumptions may also require the use of coaching style by managers (Cooper, 2011).

Observing the organizational reality shows that coaches are employed in the context of supported coaching in organizations that are different in culture. When linking coaching ideas with certain types of organizational culture, it can be said that coaching

climate will be different among organizations and will create different effects (Kołodziejczak, 2015). To be effective, educators must understand and adapt to the cultural context. At the same time, they should also increase the cultural awareness of the people they teach. Coaching can also be used to facilitate the cultural transformation of an organization. Finally, there are cases where the goal of this transformation is to create a coaching culture that is characterized by the principal principles and behaviors of coaches. Another thing that should be considered in relation to the coaching is how the leader utilizes culturally compatible capabilities for the benefit of the organization. Like individuals, organizations can often benefit from further development of traits that may already be well developed. Some aspects of culture may be highly visible, widely shared, and fully utilized in the organization. Therefore, supporting culture is the most important role of a leader. Coaching can help a leader behave in ways that validate and support the culture for individuals within the organization. Also, coaching can teach or demonstrate fundamental cultural norms and values to the individuals out of the organization, including external stakeholders and new members of the organization. Other aspects of culture may represent emerging characteristics that have not yet been institutionalized throughout the organization. Coaching should increase the leader's awareness of these characteristics. Coaching should prepare the leader to develop these norms and values through the public consciousness of the organization. Therefore, he/she can completely utilize them and align with the strategy (Nieminen, Biermeier-

Hanson & Denison, 2013). Lean leaders are coaches, consultants, as well as, inspire organizations to use lean as a standard. Lean leadership is based on mutual communication, asking questions, helping employees, active listening, empowering, teamwork, and using problem solving tools that are aligned with coaching leadership (Flumerfelt & Wenson, 2019). Therefore, it can be concluded that the culture of adaptability by creating a context for receiving correct information, customer care and providing a context for change through coaching leadership can be a proper environment for lean behaviors in the organization.

Comparison of the total effects of the four types of organizational culture

Finally, the results of the research showed that the mission culture has a direct effect (0.51), an indirect effect (0.2025) and a total effect (0.7125) on the lean behavior of school principals. The consistency culture has a direct effect (0.38), an indirect effect (0.15) and a total effect (0.53) on the lean behaviors of school principals. The involvement culture has a direct effect (0.61), an indirect effect (0.2625) and a total effect (0.8725) on the lean behaviors of school principals. Adaptability culture has a direct effect (0.62), indirect effect (0.30) and total effect (0.92) on the lean behavior of school principals.

Therefore, among the types of organizational culture, adaptability culture has the greatest effect on the lean behavior of principals. The culture of adaptability is fully aligned with lean processes by emphasizing organizational learning, customer-centricity and providing the context for change. Because the lean fundamental

principles of respect for people and continuous improvement are well present in the components of the culture of adaptability. It seems that this type of organizational culture is a proper context for the emergence and strengthening of lean processes and behaviors.

In order to make better usage of the results of the present research by officials at different management levels of education and training, the following practical solutions are suggested to strengthen the types of organizational culture, coaching leadership and lean behaviors of principals.

In order to improve the adaptability culture of schools, it is suggested:

- Pathology of school adaptation culture in order to improve and develop it.
- Investigating the role of factors influencing the culture of adaptation in schools.
- Training and empowering schools in the application of the school adaptation culture.

In order to improve the involvement culture, the following suggestions are presented:

- Training and empowering school administrators in the application of the involvement culture of schools.
- Pathology of the involvement culture of schools in order to improve and develop it.
- Investigating the role of effective factors on the involvement culture of schools in order to develop the model.

In order to improve the mission culture of schools, it is suggested:

- Training and empowering school principals in the application of

mission culture in schools and continuous assessment of principals' mission culture analysis skills.

- Holding scientific courses and meetings about coaching leadership (what it is, and its application in the school environment).
- Drawing a clear vision of the future of the organization, informing the teachers and employees of the organization about the organization's strategy and goals.

In order to improve the culture of school consistency, it is suggested:

- Pathology of the consistency culture of schools in order to develop and improve it.
- Examining the role of factors influencing the culture of consistency in order to develop the model.

In order to improve the coaching leadership style, the following suggestions are presented:

- Training principals in the correct usage of coaching leadership style.
- Using powerful reasoning, active and empathetic listening in dealing with issues and problems with teachers, staff and students.

• Detailed analysis of the dimensions of coaching leadership as a mediator between organizational culture with principals' lean behaviors.

- The attention of the officials of the educational system to the teachers through intelligent asking and providing feedback.

In addition to the mentioned suggestions, some other suggestions are presented to improve the lean behavior of principals:

- Designing and validating the model of pure behaviors of school principals through a mixed approach.

- Examining different aspects of issues, using correct information and avoiding hasty decision making.
- Logical approach in dealing with issues, employee involvement in decisions and delegating authority to employees according to their abilities.
- Keeping calm and showing positive thinking in challenges and stressful situations to the authorities.

Research limitations

This research, like any other research, had limitations, including: limitations in generalizing the results of the research to other societies, limitations in data collection tools due to limited time, the existence of limited resources regarding lean behaviors in Iran and abroad, the lack of similar research in Iran and abroad, the restrictions related to the spread of the coronavirus pandemic and the long-term closure of educational centers.

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Ethical Considerations

During the implementation of this research and the preparation of the article, all national laws and principles of professional ethics related to the subject of research, including the rights of statistical community, organizations and institutions, as well as authors and writers have been observed. Adherence to the principles of research ethics in the present study was observed and consent

forms were consciously completed by all statistical community.

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Conflict of Interest

According to the authors of the present article, there was no conflict of interest.

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References:

- Akbarikia, M.A., Sabegh, Z. A.A., & Sadeh, E. (2021). Presenting a Pattern of Ethical-Oriented Organizational Culture in Line with Promoting of Administrative Health with a Mixed Approach. *International Journal of Social Sciences (IJSS)*, 11(3), 59-80.
- Ardalan, M.R. (2012). *The Cultureal Context of Person-organization Fit*. Hamadan: Bu-Ali Sina University.
- Aydin, B. (2018). The role of organizational culture on leadership styles. *MANAS Sosyal Araştırmalar Dergisi*, 7(1), 267-280.
- Berg, M. E., & Karlsen, J. T. (2016). A study of coaching leadership style practice in projects. *Management Research Review*.39 (9), 1122-1142.
- Bhasin, S., & Found, P. (2020). Sustaining the lean ideology. *Management Decision*, 59(3), 568-585.
- Bortolotti, T., Boscari, S., & Danese, P. (2015). Successful lean implementation: Organizational culture and soft lean practices. *International*

Journal of Production Economics, 160, 182-201.

Burch-Parker, L. (2021). *Organizational Culture, Organizational Commitment, and Perception of Meaningful Work among Social Workers in the Public Sector throughout the United States* (Doctoral dissertation, The Chicago School of Professional Psychology).

Cooper, C. L., Flint-Taylor, J., & Pearn, M. (2013). *Building resilience for success: A resource for managers and organizations* (Vol. 8). Basingstoke: Palgrave Macmillan.

Dahling, J. J., Taylor, S. R., Chau, S. L., & Dwight, S. A. (2016). "Does coaching matter? A multilevel model linking managerial coaching skill and frequency to sales goal attainment. *Personnel Psychology*, 69(4), 863-894.

Eaker, R., & DuFour, R. (2009). *Getting started: Reculturing schools to become professional learning communities*. Solution Tree Press.

Flumerfelt, S., & Wenson, J. (2019). Accelerating Sustainability with Lean Leadership. *Lean Engineering for Global Development*. 385-403.

Ghavidel, A. (2016). Lean management and its application in the world of education. *Journal of Inclusive Management*. 1, (1), 52 -61.

Gholami, S., Ahmadi Khanamini, S., & Ahmadiyan, N. (2020). Identifying the Factors Affecting the Difference between Continuous and Final Assessment in Third-Year (Senior) Students in Secondary Schools from the Viewpoint of Teachers and Students: A Mixed Method Research. *Educational Measurement and Evaluation Studies*, 9(28), 139-170.

Gørtz, K. (2012). Coaching, Lean Processes, and the Concept of Flow. *The Philosophy and Practice of Coaching: Insights and Issues for a New Era*, 299-315.

Grigg, N. P., Goodyer, J. E., & Frater, T. G. (2020). Sustaining lean in SMEs: key findings from a 10-year study involving New Zealand manufacturers. *Total Quality Management & Business Excellence*, 31(5-6), 609-622.

Halling, B., & Renström, J. (2014). Lean leadership: a matter of dualism. *International Journal of Human Resources Development and Management*, 14(4), 1503-10510.

Hardcopf, R., Liu, G. J., & Shah, R. (2021). Lean production and operational performance: The influence of organizational culture. *International Journal of Production Economics*, 235, 108060.

Huang, J. T., & Hsieh, H. H. (2015). Supervisors as good coaches: Influences of coaching on employees' in-role behaviors and proactive career behaviors. *The International Journal of Human Resource Management*, 26(1), 42-58.

Hussein, H. W., & Al-Zubaydi, G. D. T. (2020). Reflection of lean leadership behaviors in enhancing the strategic balance of business organization. *International Journal of Research in Social Sciences and Humanities*. 10. 406-422.

Jafari, P., & Yazdani, S. (2008). Six Sigma and Lean management approaches in education. *Educational Sciences*, 1(3), 7-40.

Kallassy, J., & Hamzeh, F. (2021). Developing a Lean Culture Index in Construction. In *Proc. 29th Annual Conference of the International Group for Lean Construction (IGLC)*. 504-513.

Karlsen, J. T., & Berg, M. E. (2020). Coaching leadership style: a learning process. *International Journal of Knowledge and Learning*, 13(4), 356-368.

Kassem, R., Ajmal, M., Gunasekaran, A., & Helo, P. (2019). Assessing the impact of organizational culture on

achieving business excellence with a moderating role of ICT: An SEM approach. *Benchmarking: An International Journal*, 26(1), 117-146

Kim, S. (2014). Assessing the influence of managerial coaching on employee outcomes. *Human Resource Development Quarterly*, 25(1), 59-85.

Kinyua, F. W., & Muchemi, A. (2021). Organization Culture On Performance In Family Run Businesses: A Survey Of Riva Petroleum Dealers Limited Nakuru County. *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, 8 (11), 8-17.

Kiziloglu, M. (2021). The effect of organisational culture on organisational performance: the mediating role of intrapreneurship. *The Irish Journal of Management*, 41, 20-36.

Kołodziejczak, M. (2015). Coaching across organizational culture. *Procedia Economics and Finance*, 23,329-334.

Koopman, R., Englis, P. D., Ehgrenhard, M. L., & Groen, A. (2021). The Chronological Development of Coaching and Mentoring: Side by Side Disciplines. *International Journal of Evidence Based Coaching & Mentoring*, 19(1), 137-151.

Koskela, L., Ferrantelli, A., Niiranen, J., Pikas, E., & Dave, B. (2019). Epistemological explanation of lean construction. *Journal of Construction Engineering and Management-ASCE*, 145(2), 1-10.

Langat, E., & Lagat, C. (2017). Effect of Organizational Ownership and Culture on Employee Performance Among Selected Banks in Kenya. *European Scientific Journal*, ESJ, 13, 13, 409-425.

Li, J., & Vinitwatanakhun, W. (2022). A study of the relationship between instructors' perceptions towards organizational culture and job satisfaction in Shiyuan College of Nanning Normal university. *Scholar: Human Sciences*, 14(1), 316-316.

Liu, S. F., Fan, Y. J., Luh, D. B., & Teng, P. S. (2022). Organizational Culture: The Key to Improving Service Management in Industry 4.0. *Applied Sciences*, 12(1), 1-23.

Ljungblom, M. (2012). A comparative study between developmental leadership and Lean leadership—similarities and differences. *Management and Production Engineering Review*. 54-68.

Losonci, D., Kása, R., Demeter, K., Heidrich, B., & Jenei, I. (2017). The impact of shop floor culture and subculture on lean production practices. *International Journal of Operations & Production Management*. 37(2), 205-225.

Marksberry, P. (2010). A New Approach in Analysing Social-Technical Roles at Toyota: The Team Leader. *International Journal of Human Resources Development and Management* 10 (4), 395–412.

Maruthu, B., Dhileep, J. K., & Manivannan, S. (2018). Enhancing productivity and consumer value through implementation of lean manufacturing. *International Journal of Advance Research, Ideas and Innovations in Technology*, 4(3), 2472-2474.

Mojibi, T., Hosseinzadeh, S., & Khojasteh, Y. (2015). Organizational culture and its relationship with knowledge management strategy: a case study. *Knowledge Management Research & Practice*, 13(3), 281-288.

Muda, F. L., & Ismail, A. (2021). Sustainability in the Business Industry: The Importance of Involvement Culture in Organizations. *The International Islamic Economic System Conference*, 151-154.

Mulders, K. (2016) *Embracing Lean leadership: an empirical study on the interaction between Lean leadership principles and a successful Lean implementation at the team-level of*

analysis. Master's thesis in Organization Studies, Tilburg University.

Naderi, N., Moradyani, L., Bagheri, GH., & Ebrahimi, S. (2020). The effect of managers coaching qualifications on participatory management of Nahavand schools. *School Administration*, 8 (1), 46-24.

Nieminen, L. R., Denison, D. R., Biermeier-Hanson, B., & Heinz-Oehler, K. (2018). Organizational culture and coaching. In *Handbuch Schlüsselkonzepte im Coaching*. 433-440). Berlin, Heidelberg.

Nieminen, L., Biermeier-Hanson, B., & Denison, D. (2013). Aligning leadership and organizational culture: The leader-culture fit framework for coaching organizational leaders. *Consulting Psychology Journal: Practice and Research*, 65(3), 177.

Ooi, S. K., Ooi, C. A., & Memon, K. R. (2020). The role of CSR oriented organisational culture in eco-innovation practices. *World Review of Entrepreneurship, Management and Sustainable Development*, 16(5), 538-556.

Pakdil, F., & Leonard, K. M. (2015). The effect of organizational culture on implementing and sustaining lean processes. *Journal of Manufacturing Technology Management*. 26 (5), 725 – 743.

Paro, P. E. P., & Gerolamo, M. C. (2017). Organizational culture for lean programs. *Journal of Organizational Change Management* .30(4), 584-598.

Pasricha, P., Singh, B., & Verma, P. (2018). Ethical leadership, organic organizational cultures and corporate social responsibility: An empirical study in social enterprises. *Journal of Business Ethics*, 151, 941-958.

Pavlova, E. (2020). Enhancing the Organisational Culture related to Cyber Security during the University Digital

Transformation. *Information & Security*, 46(3), 239-249.

Putra, I. M. Y. D., Rasmini, N. K., Gayatri, G., & Ratnadi, N. M. D. (2022). Organizational culture as moderating the influence of internal control and community participation on fraud prevention in village fund management during the COVID-19 pandemic. *Linguistics and Culture Review*, 6 (S1), 351-362.

Puvanasvaran, A. P. (2012). Enhancing Productivity Through Lean Behavior. *INTECH Open Access Publisher*, 295-317.

Robbins, S.P. (2014). *Organizational Behavior: Concepts, Controversies & Applications*. Translated into Persian by A. parsayan & S. M. Aarabi. Tehran: Cultural Reserch Bureau.

Schwagerman, III, W. C., & Ulmer, J. M. (2013). The A3 Lean Management and Leadership Thought Process. *Journal of Technology, Management & Applied Engineering*, 29(4), 1-10.

Sharma, S., Prakash, G., Kumar, A., Mussada, E. K., Antony, J., & Luthra, S. (2021). Analysing the relationship of adaption of green culture, innovation, green performance for achieving sustainability: Mediating role of employee commitment. *Journal of Cleaner Production*, 303, 127039.

Taherimashhadi, M., & Ribas, I. (2018). A Model to align the organizational culture to Lean. *Journal of Industrial Engineering and Management*, 11(2), 207-221.

Tanudiharjo, R., Yun, F., Joo, J., & Arokiam, I. (2021). Investigation of Factors Impacting Lean Implementation in the Indonesian Fast-Moving Consumer Goods Industry. *Operations and Supply Chain Management: An International Journal*, 14(2), 162-172.

Thuresson, J., & Östman, M. (2017). *The Practice of Value Stream Management and Lean Leadership in a*

Matrix Organization A Case Study in the Aerospace Industry. Master's Thesis in the Master's Programme Quality and Operations Management, Chalmers university of technology.

Tien, N. H., & Anh, D. B. H. (2019). Organizational culture and labor productivity of foreign corporations in Vietnam. *International Journal of Research in Finance and Management*; 2(1), 37-42.

Tortorella, G. L., Fettermann, D., Fogliatto, F. S., Kumar, M., & Jurgburg, D. (2021). Analysing the influence of organisational culture and leadership styles on the implementation of lean manufacturing. *Production planning & control*, 32(15), 1282-1294.

Van Dun, D. H., Hicks, J. N., & Wilderom, C. P. (2017). Values and behaviors of effective lean managers: Mixed-methods exploratory research. *European management journal*, 35(2), 174-186.

Van Dun, D., Hicks, J., & C. Wilderom. (2017). Values and Behaviors of Effective Lean Managers: Mixed-Methods Exploratory Research. *European Management Journal* 35 (2), 174–113.

Wahyuningsih, S. H., Sudiro, A., Troena, E. A., & Irawanto, D. (2019). Analysis of organizational culture with Denison's model approach for international business competitiveness. *Problems and perspectives in management*, 17, (1), 142-151.

Xuan, T. T. H., Hao, N. Đ., & Phuc, N. T. (2019). Organizational culture of enterprises in Thua Thien Hue province with Denison model. *Hue University Journal of Science: Economics and Development*, 128(5C), 45-54.

Ziskovsky, B., & Ziskovsky, J. (2019). *Optimizing Student Learning: A Lean Systems Approach to Improving K - 12 Education*, CRC Press.

Zuberbühler, M. J. P., Calcagni, C. C., Martínez, I. M., & Salanova, M. (2021). Development and validation of the coaching-based leadership scale and its relationship with psychological capital, work engagement, and performance. *Current Psychology* 42(1), 648-669.

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