



Investigating the effects of emotional intelligence on social-mental factors of human resource productivity



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ABSTRACT

This paper seeks to investigate the effects of emotional intelligence on social-mental factors of the human resource. Research population includes employees of 2 areas of Mellat Bank in Tehran province; 248 out of them were selected for data analysis. Bank employees are one of those kinds of people who have much working time during relatively short duration and hence human resource productivity in bank employees and especially Mellat Bank, as one of the most important banks in the country, is so vital. A questionnaire was used for data collection. Dimensions of emotional intelligence come from Bar-On model and social-mental factors of human resource productivity come from Tafari, Sokhikian, and Mirnejad (2008). Variance-based SEM is used for analysing data. Results at 99 percent confidence interval show that emotional intelligence has a positive effect on social-mental factors of the human resource.

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La investigación de los efectos de la inteligencia emocional en los factores mentales de la productividad en recursos humanos

RESUMEN

Este trabajo busca investigar los efectos de la inteligencia emocional en los factores sociometales del recurso humano. La población de la investigación incluye empleados de 2 áreas del Mellat Bank, en la provincia de Teherán, 248 de los cuales fueron elegidos para el análisis de datos. Los empleados de banca son un tipo de personas que trabajan mucho durante un tiempo relativamente corto, razón por la cual la productividad del recurso humano de la banca, en especial del Mellat Bank, uno de los más importantes del país, es tan vital. Se utilizó un cuestionario para la recogida de datos. Las dimensiones de inteligencia emocional proceden del modelo de Bar-On y los factores sociometales de la productividad del recurso humano proceden de Tafari, Sokhikian y Mirnejad (2008). El modelo de ecuaciones estructurales, basado en la varianza se utiliza para el análisis de datos. Los resultados, al nivel de confianza del 99% muestran que la inteligencia emocional tiene un efecto positivo en los factores sociometales del recurso humano.

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Palabras clave:

Inteligencia emocional

Factores sociometales

Productividad del recurso humano

Nowadays, nobody doubts about the importance and gravity of human force in organizations. While capital and machineries were once considered as the main resources a producing or a service business could have, human force and mainly those with high emotional capacity has now replaced them as the main resource. On the

other hand, there are varieties of factors that influence organizational performance. Having these factors recognized and examined is of great help in both the improvement of organizational activities and the realization of organizational goals. Performance is one of these factors. Today, performance means competitive advantage. As suggested by statistics, performance status in Iran is not promising and it has even followed a descending trend. Thereby, human forces and their performance and efficiency are of great importance. A comparison showed that performance of human force in

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Iran has decreased about 25% in the last 10 to 20 years. During the same period, other countries have improved their work forces' performance so that performance in Hong Kong has increased about 40%, in Thailand 37%, in Taiwan 36%, in South Korea 36%, in Singapore 27%, in India 19%, and in Pakistan 14% (Aghagolzadeh, 2006). Moreover, surveys regarding effective work hours have shown that Iranian employees in public sectors effectively work for 22 min per day. Additionally, estimates are that employees in the developed countries work effectively 28 hrs out of 44 hrs work per week; this figure in Iran is 11 hrs out of 44–49 hr work per week. Iran Parliament Research Center declared that the best-case scenario in Iran is 2 hrs of effective work per day, which is less than 11 hrs of estimate per week. There are other statistics that show effective working hours in Iran is 6–7 hrs, while this figure in Japan and South Korea is 40–60 and 54–72 hrs. It is notable that these statistics are too optimistic, as the more realistic estimates show that effective working hours in Iran is 22 min per day. At any rate, this is not to be ungrateful for all those working hardly in the public sector. However, from a wider perspective, performance in public sector is not satisfactory (www.eghtesadonline/farsi/content, 2012 [Tavari et al., 2008]). Nowadays, the role of performance in improving general welfare is undeniable. All human activities will benefit from improvement of performance. Performance, as a general variable in management, is comprised of several effective factors (Abtahi & Kazemi, 2000). Variety and breadth of factors effective on performance may create ambiguity and puzzle organization authorities. From a macro perspective and management point of view, performance means synergy of effectiveness and efficiency. Effectiveness refers to the extent to which the resources are used optimally and efficiency means the extent to which the goals are realized. From many managers' point of view, facing several factors is the reason for not trying to improve factors of performance, so that many of them have acknowledged that they cannot solve the problem. However, factors of performance can be categorized in managerial, social-mental, cultural, individual, and environmental categories. Among them, managerial, cultural, individual, and environmental factors can be controlled to some extent, while mental and social factors (particularly the former) are hard to control. Therefore, these categories can be approached separately. On the other hand, many studies have recommended that smarter individuals tend to focus more on long-run development and performance. In fact, the concept of intelligence as a behavioristic feature is of great importance in the improvement of performance as it is an internal matter for every person. This is so important that employees were asked in the past to forget their emotions at work and to follow wisdom rather than their heart. However, this was impossible due to interactions between people and the role of emotions and feelings in these interactions (Sobhaninejad & Yoozbashi, 2008). Emotional intelligence refers to one's ability to detect and control one's and others' emotions. Lam and Kirby (2002) argued that emotional intelligence might improve performance of employees. Many authors have argued that the role of emotional intelligence of managers and the staff becomes clearer over time (Goleman, 2004). Therefore, studying emotional intelligence and its elements and variables is of great importance in performance improvement.

The present study is an attempt to determine the effects of emotional intelligence on social-mental factors of performance of human force of Bank Mellat, Dist. 2, Tehran. The reason for adopting case study was extensive financial transactions of the bank.

Theoretical Foundations

Performance

According to Japan's Performance Center, performance is defined as to maximize usage of physical resources, human forces,

and other elements in a scientific manner, which results in reduction of production costs, development of markets, increase in employment opportunity, and improvement in general welfare. The US Performance Institute defines performance as a tool to convert expenditure to profitability (Taheri, 1999). Europe's Performance Institute defines performance as the extent and rate of effective use of each and every element of production. The institute argues that performance is a thought and an attitude and makes everyone work better and harder every day. Believing in improvement of performance means to have strong faith in man's progress. The term was first introduced in the 18th century and today it is considered as one of the main factors in management. Adam Smith, the Scottish scholar, introduced performance at a global scale in his book *The Wealth of Nations*. Performance literally means both power production fertilizing; in Farsi it means being useful and gaining profit (Aghagolzadeh, 2006). In general, performance refers to the extent to which a system is successful in using its resources to meet its goals. There are several factors that are effective in performance, which are generally categorized in four groups: technology-based, material-based, employee-based, and task-based. Based on this categorization, performance improvement is defined according to hardware factors, software factors, and human factors. Among these factors, the last one is the most important one in production and performance. Human-ware refers to capability and motivation for working and covers sub-factors such as education, motivation, spirit, attitude, and point of view that cover issues such as human capabilities and behaviors (skill, motivation, and enjoying work) (Aghdasi, 1996).

Intelligence

Intelligence is a harmonious problem solving behavior toward facilitating realization of applied goals and harmonious growth. Compatible behavior attenuates the goals that may lead to internal controversy. This concept of intelligence is based on the statements that necessitate the process of stepping toward the goals, adopting strategies to overcome obstacles, and solving the problem (Emmons, 1999; Nasel, 2004; Sternberg, 1997).

Gardner defined intelligence as a set of abilities to solve problems and create new products that are considered valuable in a specific culture. He recognized nine types of intelligence including verbal, musical, rational-mathematical, space, physical-motor, individual (including inter/intra-personal intelligence), natural, and ontological intelligence (capability to deal with ontological questions) (Amram, 2005).

The Western approach to intelligence is cognitive and includes information processing, while the combined Eastern approach to intelligence covers different elements of performance and man's experience, including cognition, intuition, and emotion in an integrated framework (Nasel, 2004).

In general, intelligence helps people to improve their harmony with the environment and find the ways to deal with problems and issues. In addition to that, the ability to understand the problem, bring in a solution for different problems in daily life, and finding more effective solutions are characteristics of smart people.

Emotion

The term and its exact meaning was an area of debate among psychologists and philosophers for over one century. According to the Oxford Dictionary, intelligence is any stimulation and disturbance in brain, feeling, and love, any strong and excited mental mode. The term is used to highlight a feeling, thought, and mental and biological mode regarding a specific range of interests that makes the individual engage in an activity. Taking combinations, variety, and nuance differences into account, there are hundreds of

types of emotions. In fact, there are countless variant of emotions without specific term (Yazdani & Riahi, 2010).

Emotional Intelligence

By introducing the concept of “emotional intelligence” psychologists have tried to make it clear that emotion and intelligent are not two ends of one spectrum (Averill, 2007). To explain the weight of emotion in man’s evolution, social biologists argue that heart is more important than brain. They further explain that in tough and risky tasks, emotions are more important than being assigned to brain. It is the emotion that leads man in dangerous situations, loss of loved ones, persistence in reaching the goals despite several failures, creating love relations, and forming a family. Different emotions prepare us for different tasks and lead us to a direction in which man has proved to be successful for several times (Ostadi & Zarehpour, 2009).

Emotional intelligence, according to Salovey and Mayer’s (1997) skill-based model, is the ability to have correct perception of emotions, employ the emotions to facilitate wisdom, understand emotions, and manage emotions in oneself and others. Bar-On (1997, as cited in Sternberg, 2000) gave a much wider interpretation of emotional intelligence. He introduced emotional intelligence as non-cognitive abilities, knowledge, and merits that enable one to adapt successfully to different life situations. Bar-On recommended five fields of merits that can represent emotional intelligence capacities:

- Intra-personal skills, including emotional self-awareness, self-expression, self-management, self-development, and independence.
- Inter-personal skills, that include relationships among people, responsibility, social commitment, and unity.
- Adaptability: ability to solve problem, to be realistic, and to test reality and flexibility.
- Stress management: ability to stand stress and impulses.
- General mood: including optimism and happiness.

Wee Signer defined emotional intelligence as the intelligence to employ emotion and feeling toward guiding behavior, thoughts, and relationship with others, colleagues, supervisors, and clients and also to spend time to improve the outcomes (Khaef Elahi & Doustar, 2003). In another definition, emotional intelligence is defined as detecting emotions and thoughts and expressing them directly and exactly (Siarouchi, Forgas, & Mayer, 2004). Emotional intelligence is one’s awareness of his/her and other’s emotions and the ability to recognize and control different emotions and feelings; it also has to do with ability to express sympathy for others. Therefore, emotions come with evaluating positive and negative aspects of a situation and bring in suitable solution in stressful situations. Based on the general perception of emotional intelligence (Mayer, Salovey, & Caruso, 2004), emotions are independent information sources based on which intelligence functions.

Averill (2007) believed that people with strong emotional intelligence are able to comprehend the beliefs and rules that give meaning to an emotion. They are also very good at evaluating the situation and express their emotions skillfully. A response has more chance to be effective and intelligent when it is according to cultural beliefs and rules. Therefore, emotional intelligence is a convergent element – i.e., it converges to what is culturally acceptable. On the other hand, a response or emotional event might diverge from generally accepted traditions and social codes and, in this case, we have divergence in response. When such divergence includes sort of negative non-constructive response, it is neurotic and when it includes positive outcome for one and others, it is a creative response even if it does not fit the norms and cultural codes.

Literature Review

Alkahtani (2013) surveyed the effects of emotional intelligence on organizational performance of higher education bodies of the Saudi Arabia and concluded that emotional intelligence has positive and significant effects on performance of the staff.

Sahdat and Sajjad (2011) conducted a comprehensive study in Pakistan to evaluate and measure the effects of emotional intelligence on organizational performance and concluded that the higher the emotional intelligence, the higher the performance of the organization and vice versa.

A study by Sy, Tram, & O’Hara (2006) indicated that emotional intelligence of an employee has a positive and significant relationship with occupation performance and satisfaction.

Cherniss (2003) studied the effects of emotional intelligence on organizational effectiveness and concluded that emotional intelligence has positive and significant effects on all aspects of organizational effectiveness.

In the study determining the relationship between emotional intelligence and work performance in a telecommunication center with 135 employees, Nel, van Dyk, Haasbroek, Schultz, Sono, & Werner (2004) concluded that occupational performance increases with the increase of emotional intelligence.

Jamshidi, Baherzadeh, and Nikoo (2011) studied employees of the Bandar Abbas Customs Department to find a relationship between emotional intelligence and occupational performance. They concluded that there was a very positive and significant relationship between the two variables. They also found that there was a significant positive relationship between employees’ performance and emotional intelligence.

Hosseininassab and Ghaderi (2011) studied relationship between cultural intelligence and performance of Shahd Schools principals located in West Azerbaijan (41 principals and 246 teachers). They concluded that emotional intelligence with the aspects meta-cognitive, cognitive, motivational, and behavioral had significant and positive relationship with the performance of principals.

Amiri, Moghimi, and Kazemi (2010) concluded in their study that there was significant relationship between the elements of intelligence and cultural intelligence in particular and performance of the employees.

Yazdani and Riahi (2010) surveyed the relationship between emotional intelligence and performance of administrative employees of Shiraz Medical Science University and argued that there was a direct and positive relationship between the two variables. They also found that strongest dependency was between emotional intelligence and performance of the participants, which highlights the role of emotions and feelings in the improvement of employees’ performance.

Based on the literature review, a conceptual model was proposed as shown in Figure 1 below.

Hypotheses

Main Hypothesis

Emotional intelligence affects mental social factors of human force performance.

Secondary Hypotheses

Intrapersonal skills of emotional intelligence influence mental-social factors of human force performance of employees of Tehran-based branches of Bank Mellat.

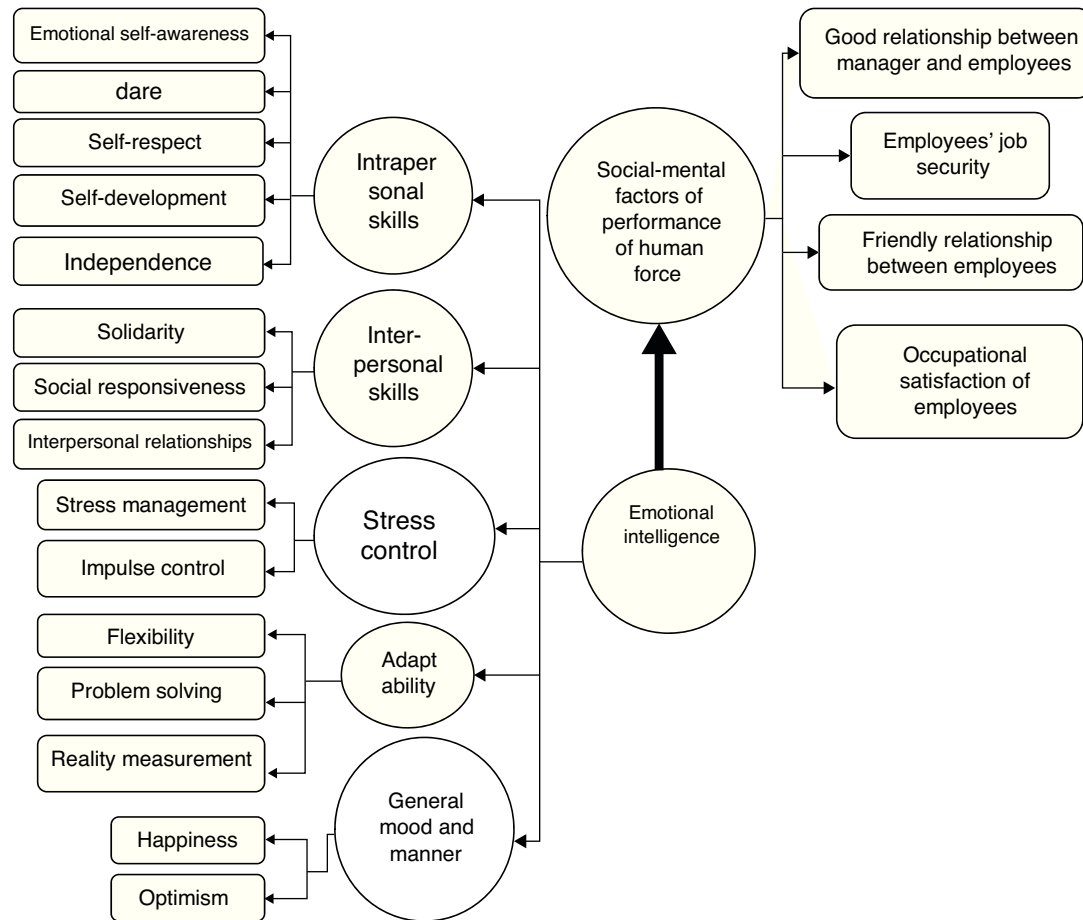


Figure 1. Conceptual model.

Interpersonal skills of emotional intelligence influence mental-social factors of human force performance of employees of Tehran-based branches of Bank Mellat.

Stress management of emotional intelligence influence mental-social factors of human force performance of employees of Tehran-based branches of Bank Mellat.

General mood of emotional intelligence influence mental-social factors of human force performance of employees of Tehran-based branches of Bank Mellat.

Method

Regarding the purpose, the study is an applied work carried out through field study. The study population was comprised of employees of Bank Mellat, Dist. 2, Tehran (58 branches with 700 employees). Using Morgan's Table, 248 employees were selected, taking the probability of unfilled questionnaires into account; 260 questionnaires were distributed, 250 completed questionnaire were collected, and 248 questionnaires were used for data gathering. District 2-Tehran was selected through cluster sampling and the participants were selected through stratum-random method. The variables were measured using the questionnaire and the aspects of emotional intelligence were determined based on Bar On's model and the standard questionnaire. Regarding the elements of performance, Tavari, Sokhikian, & Mirnejad's (2008) model and questionnaire designed by the researcher were used. Reliability of the questionnaire was ascertained using Cronbach's alpha ($\alpha \geq .7$) and composite reliability ($CR \geq .8$). It is notable that CR is more reliable than Cronbach's alpha as it takes the weight of every statement into account. To check validity of the questionnaire, it was sent to experts and the average variance extracted ($\geq .5$) was obtained.

This coefficient was used to determine the role of devoted leadership in the success of a project. Acceptable range of this coefficient for single structures (including the present study) is equal or higher .33 and the coefficient less than .33 indicates little capability of the independent structure for prediction. Factor analysis and structural equation modeling (SEM) were used to analyze the data. The SEMs used in this study were variance-based and solved through partial least square (PLS). Difference between variance-based (PLS) and covariance-based method (Lisrel) reside with the fact that the former has no specific distribution hypothesis and is more compatible with whatever number of samples. In addition, it has fewer limitations, especially when we need to predict variables. In brief, this method has many advantages over covariance-based method, since the only advantage of the latter is its ability to examine two-way relationships simultaneously. The method is featured with several validity indices, which are suitable for composite structures, which is not the case here. In addition, at $\alpha = .05$, t -value > 1.96 is assumed significant (Azar, 2012). In addition, factor loads of the structural model were used to measure the weight of each element, so that the element is more important when its value is closer to 1.

Data analysis

Figure 2 below shows standard and significant outputs regarding the main hypothesis.

As drawn, path coefficient of emotional intelligence effects on social-mental factors in human force performance is .88, which is considerable. In addition, all factor weights are above .7 and, thereby, the model is acceptable. Significance outputs are illustrated in Fig. 3.

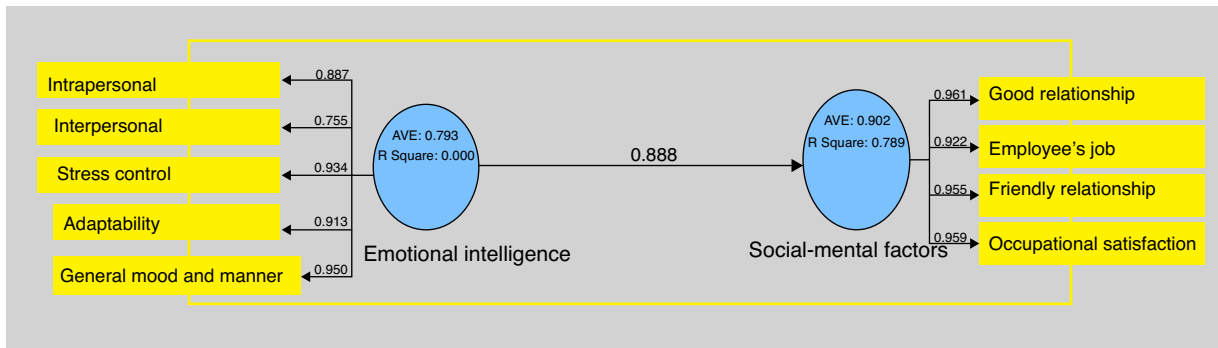


Figure 2. Standard output for main hypothesis.

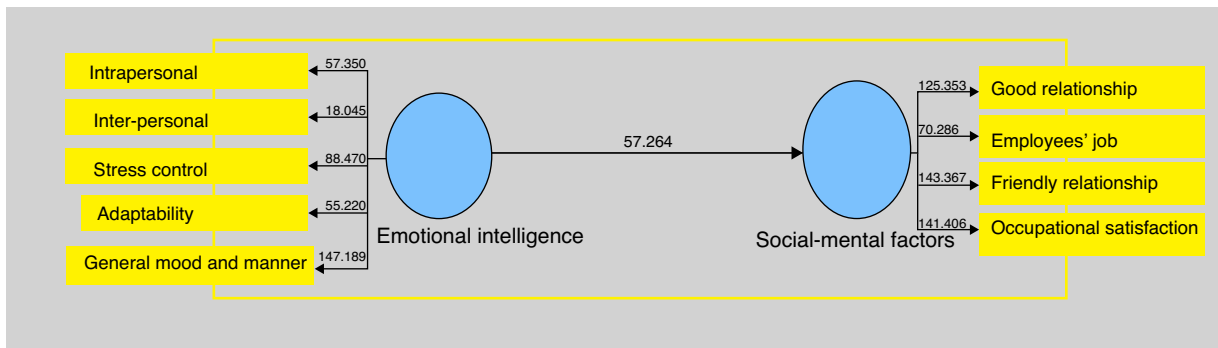


Figure 3. Significance output as to t-value regarding the main hypothesis.

As shown, all the paths and factor loads are significant and, therefore, the main hypothesis is statistically supported at a level of confidence of 99%. Validity and reliability coefficients are listed in Table 1.

As listed above, all the validity and reliability indices are confirmed. In addition, explanatory power of the model is confirmed. Taking factor loads into account, effects of emotional intelligence on social-mental factors of human force are confirmed. In addition, path coefficients, the significance of the effect of each one of the aspects of emotional intelligence on social-mental factors of human force performance, are listed below.

Clearly, all the aspects of emotional intelligence have positive and significant effects on mental-social factors of human force. Thereby, all the secondary hypotheses are supported at confidence level of 99% (see Table 2).

Table 1
Validity and reliability indices of the conceptual model.

Result	Obtained value	Acceptable range	Index	
Confirmed	0.79 ± 0.90	0.5	Validity	AVE
Confirmed	0.95 ± 0.97	0.7	Reliability	C.R.
Confirmed	0.93 ± 0.96	0.7	Reliability	Alpha
Confirmed	0.79	0.33	Explanatory power	R-square

Table 2
The effects of emotional intelligence on mental-social factors of human force performance.

Result	t-value	Path coefficient	
Confirmed	48.6	0.89	Intrapersonal skills
Confirmed	29.11	0.73	Interpersonal skills
Confirmed	109.4	0.92	Resisting pressure
Confirmed	38.4	0.84	Adaptability
Confirmed	10.5	0.58	General mood

Conclusion and Recommendation

Taking into account the results of statistical analyses, it was found that all aspects of emotional intelligence and the concept emotional intelligence itself have positive and significant effects on social-mental factors of human's force performance. The results are consistent with Alkahtani (2013), Sahdat & Sajjad (2011), Sy et al. (2006), Cherniss (2003), Nel et al. (2004), Jamshidi et al. (2011), Yazdani and Riahi (2010).

Thereby, the managers and authorities of Bank Mellat are recommended to value higher emotional intelligence in recruiting new employees. In addition, by taking into account that people with higher emotional intelligence have better perception regarding the aspects of social-mental factors of human force performance (e.g., job satisfaction, good relationship, job security, and friendly environment), improvement of emotional intelligence through focusing on the aspects of emotional intelligence and preparing the ground for this is imperative.

Future studies may focus on other aspects of emotional intelligence model and performance of human force.

Conflict of Interest

The authors of this article declare no conflict of interest.

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