



Contributions of Views of Patients and Employees to the Service Improvement, Innovation and Corporate Entrepreneurship: An Instance of a Hospital

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Authors' contributions

This work was carried out in collaboration between both authors. Author AE designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors AE and FB managed the literature searches, analyses of the study performed the spectroscopy analysis. Author FB managed the experimental process and authors AE and FB identified the species of plant. Both authors read and approved the final manuscript.

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ABSTRACT

Recently, it has been focused on how to increase organizational development and entrepreneurship in order to ensure the development in the country. The first thing to do on the issue is to determine what innovations can be made to improve the organization. At this point, the contribution provided by the employees and patients of an organization is considerable. The aim of this research is to uncover the contribution of patients' and employees' views on the improvement of service, generation of innovation and corporate entrepreneurship. In this context, it is aimed to shed light for hospital managers on the idea of finding resources to provide organizational development and renewal. A likert-type questionnaire appropriate to the purpose of the research study was applied to the hospital staff and the results were evaluated with the patients' views

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transmitted to the hospital in the last five months. It was reached to the conclusion that the views of patients and employees contribute significantly on the organizational development, attaching importance to their views enhance the positive contribution and the system should be designed as to increase the value of entrepreneurship by receiving feedback.

Keywords: Organizational entrepreneurship; patient; employee; innovation; improvement; hospital.

1. INTRODUCTION

Continuation of institutions is dependent on competing effectively in the global arena and catching up with rapidly advancing innovations. It requires constant innovation and the ability of self-improvement, which is associated with corporate entrepreneurship by many researchers. It's frequently stressed that institutions should increase corporate initiatives and activities to succeed and give importance to encouraging employees to make contributions.

The main goal of entrepreneurial management system is to educate all individuals regardless of hierarchical levels of the organization so as to think like an entrepreneur in taking action and achieve above average returns in the long term [1]. The starting point of entrepreneurship is of a new idea [2]. However, entrepreneurship finds its meaning by putting good ideas into practice rather than just producing them. Innovation is regarded not as a source of new ideas, but as taking advantage of these ideas more successfully [3]. The acquisition of good ideas requires a good system and efficient management, which as a link between the individual and the organization has a key role in facilitating entrepreneurship in terms of organizational development and renewal [1].

A successful manager is often described as the subject who can use the ideas of others in an effective and efficient manner. Entrepreneurs are also very skillful in the management of mutual interest and prefer to use the resources that others have [4]. An idea can be very nice but will have no value unless it is used. For the development of entrepreneurial behavior in business, it is necessary to evaluate the implementation of business ideas within the framework of a business plan [2]. Therefore, good resources should be offered to those in the position of adding value on good ideas, which arise from the needs and are intended to meet a need. Thus, we can say that the most useful ideas originate from the needy on the subject, in other words, the primary stakeholders who are in close relationship with the management and

have a direct effect to the company's survival, profitability and growth as a result [5]. The way to uncover ideas is based on direct communication with the owners and developing ideas from the needs. Patient complaints management system is a strategic management tool which transfers patients' experiences, needs and expectations to the institution [6]. All these stimulate in us the thought that patients' and employees' views contribute significantly to corporate entrepreneurship and development.

Except from some views of patients and staff on service improvements in the literature, adequate research hasn't been done on the issue and the relation between entrepreneurship and patients' and employees' views has not been even considered. In this context, the main purpose of the research is to obtain the contribution of patients' and employees' views to the organizational entrepreneurship, service improvements and innovation production. In the study, views of patients and employees in the Research and Application Hospital of Bozok University will be examined just after giving the definition of the concepts and mentioning about the studies carried out on the issue. At the same time the analysis of the views containing entrepreneurship and innovation value will be submitted to the hospital administrator together with the ideas in order to determine their degree of worthiness. The results are thought to be helpful to increase organizational entrepreneurship in the health institutions and make a significant contribution to the research literature.

2. CONCEPTUAL FRAMEWORK

Corporate entrepreneurship, patients and staff views, view evaluation system, patient improvement, innovation and organizational development have been studied in the conceptual framework.

2.1 Corporate Entrepreneurship

Corporate entrepreneurship is defined as organizational entrepreneurship, intrapreneurship

and business entrepreneurship in the literature. Corporate entrepreneurship was identified by Luchsinger and Bagby [7] as an enterprise associated with entrepreneurship within an organization engaged in commercial activity. In terms of corporate entrepreneurship, raw materials, products, processes, markets, industries or their combination, the implementation and the discovery of new ideas within the organization becomes important to bring out the factors affecting corporate entrepreneurship and measurement [5]. There are three elements in business that make up the foundation of a corporate: Hardware, implementation rules and employees. The first two find their meaning when the third is sorted out [8]. The employees doing innovative activities within an entrepreneurial organization can be defined as the ones who do not assume the risk directly in profit or loss [9]. The entrepreneurial characteristics and trends of the company's employees will be naturally reflected in corporate entrepreneurship. The increase of entrepreneurial characteristics of employees requires certain conditions such as a suitable atmosphere, adequate incentive, reward, motivation, sense of belonging, to the institution, the system to be justice and flexible organizational structure.

How the administrator figures the employees in his mind affects their productivity. Employees with entrepreneurial talents often provide a number of initiatives and opportunities for large enterprises but these opportunities cannot be evaluated within the organization just because necessary conditions are not created for their implementation [10]. Identification of related policies and strategies to promote entrepreneurship for organizations is an indispensable necessity; in this context, the creation and execution of education, counseling and awareness programs is deemed to be compulsory [11]. On the other hand, the number of employees with entrepreneurial characteristic is one of the organization's most important advantages. The ability to innovate and passion for change triggers entrepreneurship considerably. Entrepreneurial opportunities are capable of converting the values instinctively. While employees with entrepreneurial spirit think that the system would not work with the current application; an ordinary employee mostly incline to search for a solution in the present circumstances [9]. Corporate entrepreneurship, as it has been generally accepted, has been described as a set of attitudes and behaviors

directed to take risks, innovation, proactivity and aggressive competitiveness in order to increase performance and growth by evaluating the surrounding opportunities [12,1]. Altuntas [1] considered corporate entrepreneurship as a strategic management issue and thought it should be integrated into the strategic management process. The characteristics of the management philosophy of the entrepreneurial organization are stated as (1) establishing new business (2) examining the company's internal and external environment for new opportunities (3) taking risks in order to grow, survive and adapt, (4) creating an organizational culture supporting compliance, creativity and innovation, (5) developing a non-formal and organizational structure to support horizontal communication, (6) creating a decision-making system in which top management just creates the vision and mission and (7) establishing a structure that protects the employees as the main resources. Examining the company's internal and external environment by using the views of employees will lead to the most accurate results in order to create new opportunities.

Corporate entrepreneurship has been studied in the literature by different scientists with different dimensions. Mintzberg [13] discussed the corporate entrepreneurship in his study from the perspective of innovation, orientation, proactivity, centralization, risk-taking and growth orientation. Most scientists dealt with corporate entrepreneurship in their work with dimension of innovation trends, risk-taking and proactivity [14,15,16,17]. Antoncic and Hisrich [18] investigated corporate entrepreneurship and organizational renewal in their study from other dimensions. Other issues related to corporate entrepreneurship have been discussed in various studies. Bostanci and Ekiyor [19] studied the effects of work commitment on the internal entrepreneurship in the health sector. Ekiyor and Karagul [20] examined in their studies the effect of staff empowerment on corporate entrepreneurship.

2.2 Views of Patients and Employees and View Assessment System

Many sources emphasize that employees determine the corporate performance and are the source of change, creativity and development. New management techniques aim continuous development of employees' knowledge, skills and abilities in order to increase the benefit. Modern organizations include employees in the

process of business establishment, making decision, authorization and various strengthening applications [21]. Organizations should consider developing innovation by organizing their own internal factors such as decision, policies, system, structure and function in order to benefit from the brilliant ideas [3]. The level of employees' contribution to the institutional development is determined with regard to the perception of views by the system. So, there should be a well designed feedback and assessment system. According to Imai [8], proposal system is well-planned in the strategy of businesses and announced to the public in Japan. The sensitivity of the senior management, development of reward system and mutual flow of information increase the interest in the system.

Organizational mind and memory, the most important source for new ideas and projects, serves as a common sense for all business members. Unless necessary information and ideas needed for innovation are shared by the partners in a team spirit, team-work innovation cannot be achieved [12]. Receiving feedback is given importance in most developed countries and new systems are developed in this direction. When systems are examined, it's seen that recommendations vary according to the purpose and incentives. Japanese-style recommendation system features uplift employees to provide constructive contributions unlike American-style system which runs with financial incentives [8].

An effective complaints management system offers two important opportunities for the organization. Firstly, it helps the organization recognize patients and see their expectations. Secondly, it shows what areas should be improved in the organization and leads to create systematic improvement program [6].

All of the views and feedbacks function as a mirror which reflects how the institution is seen or perceived. Health service quality standards in the hospitals should involve the views of patients and their relatives to establish a feedback system. Two separate teams are required to assess the views of patients and employees.

2.3 Service Improvement, Making Innovation and Organizational Development

Innovation means revealing new and different values and creating opportunities for organizations in terms of products, processes

and marketing different products [3]. Creating the value of a new product requires effective management of the uncertainty natural in the test period [22]. Innovation is put into practice if an institution develops and applies new opportunities related to new markets and technologies. Making innovation is the process of converting original ideas into a commercial product in demand in the markets [23].

It is expressed that innovation cannot exist on its own in organizational sense, but it is embedded in the strategic approach as a capability [1]. Constant change triggers innovation, improves the ability of making innovation and requires the inspection and improvement of the system. Innovation is made either with initiatives occurred as result of previously untested radical ideas (radical innovation) or with works conducted step-by-step as a series of development and improvement activities (gradual innovation) [24]. Minimum conditions required for innovation includes the qualified management of products, processes and marketing for the sustainability of organizations [25,10]. Innovation can also be described as the combination of sources that meet the market needs and create more value than the cost of the resources used [26,22].

Institutions trying to catch up with new innovations spread on effort to develop new products and processes. In fact, innovation could be imagined both as a process and result. Innovation as a process specifies the case of organizational change and the activities carried out to produce a new product. The meaning of innovation as result implies new or improved goods and services obtained as a result of innovation activities [3]. Shortcomings and errors should be identified to determine what improvements have been achieved. The presence of a problem indicates the need for improvement. Therefore, improvement can be defined as the removal of deficiencies in the system so as to meet service standards, that's to provide an acceptable level for better results.

Development is a process of improvement and renovation which produces different results. Developing and sustaining small business standard by gradual improvements is considered weak in terms of the level of innovation, which is sharply expressed as a radical progress achieved by investing in equipment and/or technology. Organizational development involves continuous improvement and renewal which aims adaptation and change. The organizational

development process requires analysis of factors and facilities affecting the organization, finding solutions to problems and making necessary changes to adapt to the new conditions of the organization. Every attempt made for organizational development is an important step that moves this process forward. The first step in the process is to identify the needs and problems. The diagnostic phase of organizational development is made by assessing the health of the organization, that's the identification of problems and their causes. The target unit may be a group of subjects within the department or division of the whole organization [27].

In the literature, some studies related to corporate entrepreneurship discuss the innovation and its dimensions [13,15,17,28,29,30,31,32]. It has been concluded from the studies that business management must consult on innovative ideas and pursue a philosophy that supports projects of this kind in order to survive in the long run and maintain its competitive advantage [28,18]. Researches on innovation trends of health institutions are conducted as in the example of Kazmaci ve Ekiyor [33] who studied the impact of innovative practices in health and beauty centers. The results revealed that innovative applications reflect positively on the clients. In another study in the health sector, the effect of employee motivation on the innovation performance was measured and found to have a positive impact [34]. The contribution of patients' views to the service improvement, innovation and the institution was investigated in this research.

3. THE METHODOLOGY OF THE RESEARCH

3.1 The Purpose of the Research

The aim of the research is to determine the contribution of the views of patients and employees to the improvement, innovation and organizational entrepreneurship and to reveal the benefits of the system set out to convey the views of patients and staff for organizational development. In addition, the importance of improving the system of receiving patients' and employees' opinions will be highlighted.

The problem statement of the research is determined as: Is there any contribution of patients' and employees' opinions to the service improvement, innovation and corporate entrepreneurship?

3.2 The Population and Sample of the Research

The scope of the study covers patients, employees and managers of the Health Research and Application Hospital at Bozok University. After obtaining the necessary permission for the research, at least 25% of 400 employees were voluntarily included in the sample. 114 employees were asked to complete questionnaires and 111 of them were evaluated in the study as well as including 93 patients' views gathered in the last five months.

The research has been limited to the Bozok University Health Research and Application Hospital due to constraints of time, place and opportunity. All benefits provided by patients and employees in other health care institutions can be studied more extensively through a good feedback system which receives views continuously at the right time to meet any needs. However, conducting research with subjects interacting directly with medical institutions will increase the validity of the study.

3.3 Method of the Research

Questionnaire method was used as the research data collection tool and a likert-type survey containing employees' opinions on the subject was applied to the employees in face to face interviews. Important factors scanned in the literature were used while conducting the survey. The survey was updated by the unit of Bozok University Health Research and Application Hospital formed by patient feedback evaluation team, employee opinion evaluation team and employees in the administrative unit. In addition, the survey was finalized by applying an implementation with ten hospital employees for preliminary test. The questionnaire prepared for the employees consists of two parts. The first part consists of 10 questions which assess demographic characteristics of the participants, their feedback level and the hospital's improvement. The second part includes 34 different expressions that reflect the contribution of patients' and employees' views to the organizational entrepreneurship, improvement, innovation and how these benefits affect the organizational development. For the creation of the expressions in the questionnaire, it was made use of the evaluation of patients' complaints by Toprak and Sahin [6], the development of patient complaints monitoring system by Allen and et al. [35] and the role of

complaint management to improve performance by Bendall-Lyon and Powers [36]. The questionnaire was prepared according to the form of five-point Likert scale, which measures strongly disagree with 1 point and strongly agree with 5. High points in the score show the level of positivity on the subject.

Analyses carried out in the light of literature were identified by applying to the opinion of the hospital administrator. Attractiveness and usefulness of the survey represents how attractive the views of patients and staff are for managers about organizational entrepreneurship and utility. Comprehensiveness and entrepreneurial value refer to the scope of initiatives on behalf of the improvement and development and the importance of patient and employee feedback to produce innovation. The necessity of feedback refers to the level of transmitting the views of patients and employees in order to obtain benefits from them. Development power signifies the strength of the organization against its rivals through patient and employee feedback, the opportunity to identify the areas of development and the effectiveness of development of institutions. The level of difficulty and qualification refers to applicability of the opinions of patients and staff, the level of risk for the organization and the qualification level of resources for evaluation. Regulatory opportunities refer to the contribution of views and incentives to the regulation. Compatibility level refers to the compliance of views with regulations and accepted standards as a guide for administrators.

The questionnaire, applied to 114 subjects, was analyzed omitting the answers incomplete and unsuitable for evaluation. The employees were asked at the final part to write down what they thought about the institution or related services. 58 subjects expressed their views on 85 different issues. The whole data together with 93 patients' opinions received by the Bozok University Health Research and Application Hospital in the last 5 months were reviewed and examined to get accurate results. The collection of data for the research and the documents about patients' opinions throughout the past five months in the year 2015. The data obtained from the survey were analyzed with the statistical software PASW (Predictive Analytic Software). Cronbach Alpha Coefficient and reliability tests of the scale were calculated as 0.91, which indicates that it's quite reliable. Then factors were identified by applying factor analysis to the proposals. T-test and

correlation analysis were also performed to determine the relationship between the factors. Results were evaluated in two ways; at 95% confidence interval and $p < 0.05$ level of significance.

3.4 The Hypotheses of the Study

The recommendations related to impact of patients' opinions on organizational entrepreneurship were classified in 7 perspectives that were determined to include the following hypotheses.

H₁: There is a relationship between the attractiveness and usefulness of the views of patients and employees and factors.

H₂: There is a relationship between the comprehensiveness and initiatives value of the views of patients and employees and factors.

H₃: There is a relationship between the requirement of patient and employee feedback and factors.

H₄: There is a relationship between the development power of patient and employee feedback and factors.

H₅: There is a relationship between the level of qualification and hardship of patient and employee feedback and factors.

H₆: There is a relationship between the regulatory opportunities of patient and employee feedback and factors.

H₇: There is a relationship between the compatibility level of patient and employee feedback and factors.

3.5 Research Findings

While 46.8% of the participants were females, 53.2% were males. As for professions, 64.0% employees were from the health care class, 15.3% from administrative services class, 12.6% from the company personnel and 8.1% were from the technical services class. The health care class constitutes the majority in the participants. As for their education level, 27.9% were graduated from secondary school, 16.2% from college, 23.4% from majors, 11.7% from master's degree and 20.7% from doctoral graduate. Of respondents, 77.5% were at the

age between 26 to 45, 17.1% between 18 to 25 and 5.4% were 46 and over. The majority of employees were composed of young subjects. When the total working duration in the institution was examined, 43.2 % worked for 2 or 3 years, 28.8% for 4 or 5 years, 20.7% for 1 year, 4.5% for 6 or 7 years and 2.7% for 8 years and over. 2/3 of the employees were in the third working year.

Participants were addressed question as to whether their jobs changed in the time they worked in the corporate. According to the results; 60.4% didn't have any change, 20.7% performed a similar task, 9.9% moved to a higher position, 6.3% did many changes and 2.7% moved to a lower task.

Giving answer for the question "Is there any difference in the hospital in terms of development since the first time you saw it?" 68.5% replied positively while 30.6% gave negative answers. Answers could be adversely affected because of the fact that the majority of participants were in their first year. However, more than half of the respondents think that the hospital made great improvement.

63.1% of the participants replied as yes and 36.9% as no to the question "Have you ever had opinions to convey to the administration?" Despite positive answers constitute the majority; nearly forty percent with no answer should be clarified whether they didn't have any opinions or avoided from giving a feedback.

Factor analysis was conducted to the survey of the research. Kaiser-Meyer-Olkin sampling adequacy (KMO test) was found as 85.0% (851). Suitability of our data set for factor analysis was at a very good rate ($85.0 > 0.50$). According to Bartlett's test results; $p < 0.50$ was interpreted as meaningful because it suggests high correlations between variables. In other words, our data set was found suitable for factor analysis. As a result of Varimax Rotation Basic Component Analysis, the survey measured the views of employees with the rate of 66.96%.

As it's shown in Table 1, seven factors and the eigenvalue, the variance and the average of each variable (load) are given under factors. The first factor explains the 14,637's% of the total variance and is composed of 8 variables. When factors are examined, the significance of opinions, their benefits, positive contributions and

efficiency are expressed in the statements. Therefore, the factor is named as 'attractiveness and usefulness'. Basic variables in the factor show that views are directed to the development of services and finding solutions to problems. The variable "My opinions are mostly for the improvement of existing services" has the biggest load (775) which is under the first factor. When the average factor (3.84) is taken into account, the most important features of the views of patients and staff is attractiveness and usefulness compared to other factors.

The second factor explaining 13.251% of the total variance is composed of 9 variables. The prominent issues stated in the factor can be mentioned as the values provided by views, the width of the improvement and development, innovation approach, the necessity of the use of entrepreneurial values and importance of valuable ideas. The variable "I moved my job to an advanced level by making the conditions more effective" has the highest value (783) under the second factor. So, it is appropriate to name this factor as 'Inclusiveness and Entrepreneurship' since it has the second highest average (3.86). Therefore comprehensiveness of vision and entrepreneurial values were higher.

The third factor explaining 10.705% of the variance in Table 1 consists of five variables. The highest variable (782) is 'Opinions offer a solid knowledge of the requirements related to the areas of study'. The common sense reflected by all statements emphasizes the requirement of sharing and evaluating valuable opinions. Therefore, the factor is named 'the requirement of feedback' and has the highest average (3.96). It can be clearly understood that the requirement of sharing and evaluating valuable opinions of patients and employees is highly significant considering other factors.

The forth factor explains the 6.935% of the total variance and is composed of 3 variables. The variable 'Opinions provide a competitive advantage for institutions' under the forth factor has the highest value (644). The common sense of the statements evoke the improvement and development supplied by feedbacks. The factor named 'Developing power' has slightly lower average (3.70) than the first three factors, though not considered a significant difference. Yet, it's noteworthy in the sense of finding out the role of patients' and employees' views as a developing power.

Table 1. Factor analysis

Factors	Total load	Eigenvalue	Variance (%)	\bar{x}
Attractiveness and usefulness		4.976	14.637	3.84
My opinions are mostly aimed at the improvement of existing services.	.775			
My opinions are mostly in the form of finding a solution for improper situation and or service.	.764			
Opinions allow the recognition of the opportunities that will benefit the hospital.	.687			
Opinions are effective tools to detect the imperfections in the system.	.659			
My opinions contain new ideas available to authorized persons.	.614			
Cases of urgency can be determined on time through opinions.	.594			
Ideas with the value of entrepreneurship and innovation can be generated for institutions through patient and staff opinions.	.563			
Executives are affected by directed opinions in decision making.	.478			
Inclusiveness and entrepreneurship value		4.505	13.251	3.86
I moved my job to an advanced level by making the conditions more effective.	.783			
A better reporting system should be established to increase the transmission rate of opinions	.668			
Opinions are cheap sources for research and development activities	.642			
I would like to deliver new services that other hospitals don't have	.605			
Receiving and evaluating the views of patients and employees influences the relations between the organization and public positively	.585			
I inform the administration about the update innovations related to my job	.585			
More applications can be put into practice through applying people's opinions	.549			
I share my brilliant ideas with the authorized persons.	.511			
Alternative sources can be provided for the ideas with high entrepreneurship value	.511			
I moved my job to an advanced level by making the conditions more effective.	.506			
The requirement of feedback		3.640	10.705	3.96
Opinions offer a solid knowledge of the requirements related to the areas of study	.782			
Attaching importance to the opinions and evaluating them provides economic benefits for the institution	.621			
The institutions should encourage everyone to express their views	.545			
Opinions offer the chance to evaluate significant experiences related to services	.532			
Opinions provide information on how the institutions are perceived	.528			
Developing power		2.358	6.935	3.70
Opinions provide a competitive advantage for institutions	.644			
A widespread need or problem increases the number of feedbacks.	.613			
Any feedback from patients and employees is effective in improving and developing the services offered to public	.567			

Factors	Total load	Eigenvalue	Variance (%)	\bar{x}
The degree of difficulty and qualification		2.227	6.549	2.50
Patients and employees usually ask for things hard to achieve	.692			
Opinions increase unnecessary demands.	.692			
Existing resources are sufficient to meet the needs offered by patients and staff	.622			
Patients and staff usually demand things with high degree of risk from institutions	.589			
Regulatory opportunities		1.950	5.734	3.47
My opinions are mostly in the form of informing inappropriate conditions or services	.751			
Institutions have the opportunity of benefitting from the incentives provided by the government or related departments for putting into practice opinions with high entrepreneurial values	.699			
Level of compatibility		1.589	4.674	3.39
Patients and employees generally give feedbacks consistent with regulations and standards.	.816			
An opinion can be a source of guidance in the manager's work.	.443			

The fifth factor explaining 6.549% of the total variance has 4 variables. The variable 'Patients and staff usually demand the thing with high degree of risk from institutions' has the highest value (692) under the fifth factor. Common sense features the difficulty of putting opinions into practice and the adequacy of resources. The factor called 'the level of difficulty and qualification' is perceived to have low degree by the participants.

The sixth factor which explains 5.734% of the total variance is composed of 2 variables. The variable named 'My opinions are mostly in the form of informing inappropriate conditions or services' has the highest value (751) under the sixth factor. Other statements express the adequacy of promoting ideas with entrepreneurial values. Therefore, participants were indecisive about the factor called the regulatory opportunities (3.47).

The seventh factor explaining 4.674% of total variance in Table 1 consists of 2 variables. The variable named 'Patients and employees generally give feedbacks consistent with regulations and standards' has the highest value (816) under the seventh factor. The variable 'An opinion can be a source of guidance in the manager's work' has the second highest value. The factor of the compatibility level has a value of average (3.39) that shows participants were indecisive about the compatibility level of views.

The average and standard deviations of the variables in the questionnaire were detected in the statistical analysis. The variable 'I would like to deliver new services that other hospitals don't have' has the highest value (\bar{x} =4.32; SD=1.019). The variable with the lowest average is 'I hesitate to express my opinions' (\bar{x} =2.23; SD=1.348).

3.6 Testing of Hypotheses

The hypotheses defined in the research were tested using T-Test and Correlation Analysis.

According to analytical results, significant statistical difference was detected among almost all factors compared in the survey. This difference is related to the comparison of two factors of the same subject. As a result of independent sample T-Test, there is significant difference between the requirement of feedback and attractiveness and usefulness factor, developing power and difficulty-deficiency degree, regulatory opportunities and the factors of compatibility level ($p < 0.05$). The requirement of feedback (3.96) was significantly higher than the attractiveness and usefulness (3.84) and the correlation between them is high (.713). The requirement of feedback is directly proportional to the attractiveness and usefulness of opinions. There was no significant difference between the factor of attractiveness and usefulness and the factor of enterprise value ($p > 0.05$).

Table 2. Between factors dependent sample T-test and correlation analysis

Factors	\bar{x}	t	p	Correlation	p
Attractiveness and usefulness	3.84	-491	.624	.668	.000
Inclusiveness and entrepreneurship value	3.86				
Attractiveness and usefulness	3.84	-2.212	.029	.713	.000
The requirement of feedback	3.96				
Attractiveness and usefulness	3.84	2.016	.046	.657	.000
Developing power	3.70				
Attractiveness and usefulness	3.84	-12.708	.000	-.018	.853
The degree of difficulty and qualification	2.50				
Attractiveness and usefulness	3.84	4.167	.000	.385	.000
Regulatory opportunities	3.47				
Attractiveness and usefulness	3.84	5.182	.000	.448	.000
Level of compatibility	3.39				
Inclusiveness and entrepreneurship value	3.86	-1.571	.119	.683	.000
The requirement of feedback	3.96				
Inclusiveness and entrepreneurship value	3.86	2.048	.043	.520	.000
Developing power	3.70				
Inclusiveness and entrepreneurship value	3.86	-14.047	.000	.181	.057
The degree of difficulty and qualification	2.50				
Inclusiveness and entrepreneurship value	3.86	4.369	.000	.377	.000
Regulatory opportunities	3.47				
Inclusiveness and entrepreneurship value	3.86	5.850	.000	.530	.000
Level of compatibility	3.39				
The requirement of feedback	3.96	3.327	.001	.556	.000
Developing power	3.70				
The requirement of feedback	3.96	-13.374	.000	-.007	.945
The degree of difficulty and qualification	2.50				
The requirement of feedback	3.96	6.027	.000	.508	.000
Regulatory opportunities	3.47				
The requirement of feedback	3.96	6.775	.000	.502	.000
Level of compatibility	3.39				
Developing power	3.70	-11.071	.000	.137	.152
The degree of difficulty and qualification	2.50				
Developing power	3.70	2.192	.031	.266	.005
Regulatory opportunities	3.47				
Developing power	3.70	3.269	.001	.435	.000
Level of compatibility	3.39				
The degree of difficulty and qualification	2.50	-8.786	.000	.092	.336
Regulatory opportunities	3.47				
The degree of difficulty and qualification	2.50	-8.208	.000	.154	.106
Level of compatibility	3.39				
Regulatory opportunities	3.47	.803	.424	.412	.000
Level of compatibility	3.39				

In correlation analysis, positive correlation was specified between the factor of attractiveness and usefulness and the factor of inclusiveness and entrepreneurship value ($r = .668$; $p=0.000$). The factor of attractiveness and usefulness explains 44% of the factor of inclusiveness and entrepreneurial value ($r^2=0.44$). High positive correlation was specified between the factor of attractiveness and usefulness and the requirement of feedback ($r = .713$; $p=0.000$). The factor of attractiveness and usefulness explains

50% of the factor of the requirement of feedback ($r^2=0.50$). There is a moderate positive correlation between the factor of attractiveness and usefulness and the factor of developing power ($r=.657$; $p= 0.000$). The factor of attractiveness and usefulness explains 43% of the factor of developing power ($r^2=0.43$). There is a weak positive correlation between the factor of attractiveness and usefulness and the factor of regulatory possibilities ($r=.385$; $p=0.000$). The factor of attractiveness and usefulness explains

15% of the factor of regulatory possibilities ($r^2=0.15$). There is a weak positive correlation between the factor of attractiveness and usefulness and the factor of compatibility level ($r=.448$; $p=0.000$). The factor of attractiveness and usefulness explains 20% of the factor of compatibility level ($r^2=0.20$). There is a moderate positive correlation between the factor of the requirement of feedback and the factor of prevalence and entrepreneurial value ($r=.683$; $p=0.000$). The factor of the requirement of feedback explains 46% ($r^2=0.46$) of the factor of prevalence and entrepreneurial value. There is a weak positive correlation between the factor of prevalence and entrepreneurial value and regulatory factors ($r=.377$; $p=0.000$). The factor of prevalence and entrepreneurial value explains 14% ($r^2=0.14$) of the factor of regulatory factors. There is a moderate positive correlation ($r=.520$, $p=0.000$) between the factor of the inclusiveness and entrepreneurial value and developing power. The factor of the inclusiveness and entrepreneurial value explains 27% ($r^2=0.27$) of developing power. There is a moderate positive correlation ($r=.530$; $p=0.000$) between the factor of between the level of inclusiveness and entrepreneurial values and the factor of compatibility level. The factor of the inclusiveness and entrepreneurial value explains 28% ($r^2=0.28$) of the factor compatibility level. There is a weak positive correlation ($r=.377$ $p=0.000$) between the factor of the inclusiveness and entrepreneurial value and the factor of regulatory factors. The factor of the inclusiveness and entrepreneurial value explains 14% ($r^2=0.14$) of the factor of regulatory opportunities. There is a moderate positive correlation ($r=.556$; $p=0.000$) between the factor of the requirement of feedback and the factor of developing power. The factor of the requirement of feedback explains 30% ($r^2=0.30$) of the factor of developing power. There is a weak positive correlation ($r=.266$; $p=0.005$) between regulatory factors and the factor of developing power. Regulatory opportunities explains 07% ($r^2=0.07$) of the factor of developing power. There is a moderate positive correlation ($r=.502$; $p=0.000$) between the factor of the requirement of feedback and the factor compatibility level. The factor of the requirement of feedback explains 25% ($r^2=0.25$) of the factor compatibility level. There is a weak positive correlation ($r=.508$; $p=0.000$) between the factor of the requirement of feedback and the factor of regulatory factors. The factor of the requirement of feedback explains 26% ($r^2=0.26$) of the regulatory opportunities. There is a weak positive

correlation ($r=.435$; $p=0.000$) between the factor of compatibility level and developing power. The compatibility level explains 19% ($r^2=0.19$) of the factor of developing power. There is a weak positive correlation ($r=.412$; $p=0.005$) between the regulatory opportunities and the factor compatibility level. Regulatory opportunities explains 17% ($r^2=0.17$) of the factor compatibility level.

3.7 Evaluation of Feedback Received from Patients and Employees

85 different topics obtained from 58 employees and opinions from 93 patients received in the last five months were investigated in the survey. These opinions mostly reveal complaints that work an important resource for the improvement and development. The examination of the views submitted by patients revealed the way how the staff behaved to patients (lack of care, friendliness, kindness, tolerance in addition to incivility and scolding). Besides, there were other comments and complaints related to services: deceleration in the process of services, the requirement of audit, the system running irregularly, failure of rules and discipline, inadequate physical arrangements, the lack of informative personnel, failure to comply with working hours, complicated directions inside the hospital, arrangement of getting in line, failure in keeping the line moving, inactive call monitors, demands related to the appointment system, misinformation, inadequate evaluation, late results, duplicate entries, ventilation failure, lack of controls for bathrooms, toilets and stairs, canteen staff who disobey access rules to intensive care, request of social facilities for hospital attendants, respecting the right of priority, high number of hospital attendants, request for closet toilets, cleaning failure, smoking in the garden, demand of Digiturk broadcast in the canteen. When all the opinions are examined; a guideline data for the development activities of corporate will be provided through a detailed assessment of analysis. Some of the opinions are presented under the following headings with regard to the relevance in our study.

3.8 The Views Related to Feedback and Evaluation

- a. Suggestions of patients and staff should be discussed occasionally by the administrator.

- b. Brainstorming on the services and the needs of the hospital staff should be held in 3-6 months in a conference environment and solutions need to be expressed easily.
- c. Opinions and suggestions can be presented with verbal expression or by questionnaires, but unless they are implemented they are needless.
- d. I moved to an advanced rank by making the conditions more effective, but no matter how much I inform about innovations, no attention is paid. That's why I'm hesitant to give feedback anymore.
- e. Hospital and school management should learn about troubles by organizing meetings with personnel. The department heads should hold meetings with assistants and doctors as hospital directors meet with administrative staff to get the requests and complaints every 15 days.
- f. Staff should be able to easily share new ideas and negative things with administrator easily. Employees must take different tasks in their work according to their ideas. It should give a positive value to the employees.
- g. Managers need to meet the employees face to face in each unit every week.
- h. Personnel should be invited to have face to face meetings once a month to discuss about wishes and opinions.
- i. Ideas and opinions from patients and employees should be taken into consideration even if their comments and suggestions seem wrong. In order not to cause discouragement, they must be told about the reasons why their views are regarded invalid.
- e. Balustrades are not available on the stairs leading up to the polyclinics for elderly patients. They must be replaced since they are too wide as a child can fall down.
- f. Lifts must have a card entry system.
- g. The door at the second floor should be kept open in case we may need to go up in an emergency.
- h. Attentive staff should be awarded so that the marked difference between the hardworking and lazy staff may be known.
- i. Elevators are inadequate to deliver service to the floors or operating rooms.
- j. Employees who are hardworking and aware of their responsibilities have to be valued above buckpassers.
- k. Institutions should provide public availability sessions such as conferences, seminars etc. to ensure awareness of the public.
- l. Patients who are not informed about the results wait all day after having a magnetic resonance imaging test.
- m. The hospital should have an orthopedic doctor.
- n. There is no legal basis for the warnings in the polyclinics.

3.9 The Views Related to Improvement and Development

- a. Our hospital has improved much more than in the past. But we kindly request air conditioning for the corridors because they get unventilated due to crowd of patients.
- b. Our research hospital lacks applying some medical tests, so we transfer patients to different cities.
- c. Getting an appointment from the hospital website should be ensured in order to avoid backlog, long queues and complaints.
- d. In case patients find hospital website complicated in terms of usage, a special portal can be created to improve the quality and minimize the complaints.

3.10 The Views Related to New Services and Applications in the Hospital

- a. Developing initiatives such as the opening of delivery rooms, plastic surgery departments, applying alternative medicine treatments and the establishment of In Vitro Fertilization (IVF) unit should be planned.
- b. The opening of our delivery room and neonatal intensive care unit, which will meet a fundamental need in our province in addition to increase the number of our patients, should be accelerated.
- c. Pregnancy counseling and training unit can prepare expectant women for a healthy birth under the management of coaches and consultants.
- d. Music therapy for service patients and employees at clinics and physical therapy units would be useful as implemented in other countries.
- e. The physical conditions of the hospital are not satisfactory, so I wish the new hospital provides patients with quality service soon.
- f. Additional sources such as beauty centers will provide extra income for the institution.
- g. A new unit which delivers alternative medicine treatments will invigorate the hospital.

- h. Since our hospital is located in a very strategic position in the region, health services that are inadequate in the surrounding provinces should be examined so as to become a central health organization in the region.

The H₅ hypothesis determined as the result of analysis made in this research and examination of patients' views were rejected while other hypotheses were accepted. The rejected hypothesis is related to the degree of difficulty and deficiency of patients' and employees' feedbacks. It was found out that there was no relationship between the degree of difficulty and deficiency and other factors. According to the results, the opinions of patients and staff contribute to service improvement, corporate entrepreneurship and innovation. Since the research results include only the relevant hospital, it is not possible to generalize.

4. CONCLUSIONS AND RECOMMENDATIONS

As we examine the whole range of research findings, the research hypotheses are found strongly validated. Opinions of patients and employees seem to be important sources for institutional development. However, the necessity of configuring the feedback system so as to produce and encourage ideas of innovation and entrepreneurship has become prominent. The content of the majority of opinions is mostly about patient complaints. The primary stakeholders were passive in participation in terms of contribution to the institutional development. Nearly 40% of participants said no to the question 'Have you ever had opinions to convey authorized subjects?' as an interesting result. This result suggests that views should be taken into consideration and evaluation to increase their contribution to the system. Here are some statements with high average: A good feedback system should be established to increase the rate of opinions (4.05), opinions allows the recognition of the opportunities that will benefit the hospital (4.05), everyone should be encouraged to express their views by the institution (4.06) and the necessity of feedback strengthens this detection. The participation systems related to primary stakeholders in developed countries should be examined to design the most efficient and effective system. In such an encouraging system, employees will boost their performance positively and focus on

ideas of innovation and entrepreneurship related to their business.

When the average of the factors examined, participants were found to agree strongly with the issues of attractiveness and usefulness, inclusiveness and entrepreneurial value, the requirement of feedback and developing power while they were indecisive on the level of difficulty and qualification, the level of compatibility and regulatory opportunities. This ultimately leads us to the conclusion that views of patients and staff carry out the role of institutional development, but the assessment of resources and opportunities is limited with regard to make use of feedbacks.

As a result of correlation analysis between the factors; attractiveness and usefulness of opinions, inclusiveness and enterprise value, the requirement of feedback, developing power, level of compatibility and regulatory opportunities were found to be positive correlations. These factors are associated with each other, in other words they affect each other upon an increase or decrease in rates. For example, as the inclusiveness and entrepreneurial value increases, regulatory opportunities show increase likewise and the attractiveness and usefulness decreases as the requirement of feedback is on the decline.

The contribution of this research to the literature is to present a facilitating work method to health managers by considering the views of patients and staff especially from the angle of innovation and entrepreneurship. This method, which has the qualification guiding health managers in corporate development, will perform the best level of organizational integration by ensuring the participation and support of stakeholders in the organization. This study provides information about the effects of patients' and employees' opinions on corporate development and entrepreneurial values. The approach of the employees regarding the research subject was studied comparatively. Conducting the study in a longer period, examining the approaches of patients and employees in-depth, carrying out a research in other health institutions will lead to more striking results.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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