

A MIXED METHOD RESEARCH ON THE INVESTIGATION OF PERFORMANCE CHANGES OF AFFILIATED HOSPITALS¹²



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ABSTRACT

Affiliation is a sectoral merger or partnership model in the health sector. It means integration among institutions. Affiliation was introduced in 2011 and implemented in 2013 by public hospitals in Türkiye. This study had two objectives: (1) addressing the economic and organizational changes in performance in affiliated hospitals and (2) identifying its positive and negative aspects in practice. The study adopted a mixed-method research design. Quantitative data were analyzed using data envelopment analysis. Qualitative data were analyzed through interviews with hospital administrators. The quantitative sample consisted of ten public hospitals, while the qualitative sample consisted of 30 hospital administrators. The quantitative findings showed that the hospitals had a partial decrease in expenses and a partial increase in revenues. The higher the number of patients, the more the healthcare services. The hospital administrators believed that hospitals needed affiliation. They stated that organizational problems arose in practice, that affiliation had positive and negative aspects, and that all these caused changes in performance. The results indicate that all stakeholders in the affiliation model have great returns. However, they should collaborate to turn affiliation into an ideal structure.

Keywords: *Affiliation, healthcare institutions, performance*

JEL Codes: *A12, D20, L25*

Scope: *Business administration*

Type: *Research*

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¹ Compliance with the ethical rules of the relevant study has been declared.

² This paper is derived from the thesis titled “Evaluation of Affiliated Public Hospitals From A Financial and Organizational Performance Perspective.

AFİLİYE HASTANELERİN PERFORMANS DEĞİŞİMLERİNİN İNCELENMESİ ÜZERİNE KARMA YÖNTEMLİ BİR ARAŞTIRMA



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ÖZ Afiliasyon kavramı, sağlık alanı özelinde sektörel bir birleşme veya ortaklık modeli olarak bilinmekte ve kurumlar arası bütünleşme anlamı taşımaktadır. Türkiye’deki kamu hastaneleri, 2011 yılında yasal alt yapısı tamamlanan afiliasyonu 2013’ten itibaren uygulamaya başlamışlardır. Bu çalışma ile Türkiye’de yıllar içerisinde bir model olarak benimsenen afiliasyonun, hastanelerde yarattığı olası performans değişimini hem finansal hem de örgütsel boyutlarıyla ele almak ve uygulanma sürecinde yaşanan olumlu ve olumsuz durumları ortaya koymak hedeflenmiştir. Çalışmanın yöntemsel tasarımı karma metot olarak seçilmiştir. Çalışmada; afiliasyon modelini benimseyen kamu hastanelerinin finansal ve örgütsel performansı veri zarflama analizi ile, değişim sürecindeki yaşanan deneyimler ise hastanelerin yöneticileri ile gerçekleştirilen görüşmeler aracılığıyla incelenmiştir. Yapılan analizlerin ortaya çıkardığı bulgulara göre; hastanelerin giderlerinde kısmi bir azalış gelirlerinde ise kısmi bir artış yaşandığı ve sağlık hizmeti sunum miktarının hizmet sunulan hasta sayısının yükselişine bağlı olarak arttığı saptanmıştır. Yöneticilerle yapılan görüşmelerde; afiliasyonun hastaneler için bir gereksinim anlamını taşıdığı, uygulamanın gerçekleşme sürecinde örgütsel problemlerin ortaya çıktığı, afiliasyonun olumlu ve olumsuz taraflarının olduğu ve tüm bu durumların hastanelerin performansında değişime sebep olduğu tespit edilmiştir. Çalışmanın sonucunda; afiliasyon modelinde yer alan bütün paydaşların önemli kazanımlar sağladığına ve afiliasyonun ideal bir yapıya dönüştürülmesi için paydaşların ortak çalışma içerisinde olması gerektiğine ulaşılmıştır.

Anahtar Kelimeler: Afiliasyon, sağlık kurumları, performans

JEL Kodları: A12, D20, L25

Alan: İşletme

Türü: Araştırma

1. INTRODUCTION

We live in a modern era where organizations must make the most of the limited resources at their disposal. One of the leading models developed to that end is affiliation, which has been widely adopted in the health sector in recent years. The World Health Organization (WHO) defines affiliation as the comprehensive organization and management of healthcare institutions in terms of administration, service delivery, and education/research for the optimal utilization of healthcare services (DHG Healthcare, 2013, p. 5). Altuntaş (2017, p. 17) focuses on how affiliation is practiced in Türkiye and states that it arises when two institutions collaborate to improve healthcare services. For example, if one institution has sufficient staff (e.g., university) and another institution has sufficient physical settings and technical resources (e.g., hospital), the staff of the former transfer to the latter to provide services and carry out training and research processes.

Structural changes in Türkiye, which started with the Health Transformation Program in 2003 and continued with the implementation of many different practices, have created some opportunities for the health system. We can list these opportunities as equitable allocation of scarce resources reserved for health services, their fair use, and cost-effective increase in efficiency in the health care production process. In this respect, affiliation can be considered as an opportunity for the Turkish health system, both in terms of its application purpose and the expected gains. In the health sector, it is an important issue to transfer health financing resources to health institutions and organizations correctly.

The article consists of five parts. In the first part, the basic concepts of the subject of the article are explained. In the second part, information about the methodology of the article is given. In the third part, the findings obtained as a result of data improvement analysis and content analysis applied to the quantitative and qualitative data obtained during the research process are included. In the fourth part of the article, the findings are evaluated within the scope of similar studies in domestic and foreign literature. At the end of the article, the results were included and suggestions were made for the stakeholders of the affiliation process.

2. THEORETICAL FRAMEWORK

Affiliation, a form of strategic partnership in the health sector, provides many advantages for healthcare institutions. Research shows that affiliation positively affects the performance and efficiency of healthcare institutions (Songur & Babacan, 2016, p. 93). Healthcare institutions adopt affiliation to prevent existing adverse conditions and to benefit from current opportunities. Affiliation is established between organizations with different functions. For

example, sometimes healthcare institutions engage in affiliation among themselves, and sometimes a health institution and an educational institution may engage in affiliation (Demirtaş, 2016, p. 33). Affiliation practices in Türkiye are carried out in partnership with different institutions. For example, public or private healthcare institutions with different ownership structures establish partnerships with public or private universities. In recent years, more and more public healthcare and educational institutions have established affiliation partnerships. However, affiliation practices between private institutions have remained limited compared to public institutions (Taşkaya, 2019, p. 563). We can associate this situation with organizational strategies, plans, and needs.

Different methods are used separately or together to evaluate the performance of healthcare organizations. In recent years, more and more researchers have utilized data envelopment analysis (DEA), which is a quantitative method (Önder & Yıldırım, 2005, p. 44). It is a non-parametric method that assesses the production function of organizational processes with inputs and outputs (Demir & Bakırcı, 2014, p. 111). Researchers often use the DEA to evaluate performance in the health sector (Simons, 1995, p. 15).

There is limited research on affiliation in the health sector. Moreover, those studies do not approach it from a rich and performance-specific perspective. Therefore, we think that this study will contribute to the literature. The study sought answers to the following questions: (1) How has the level of performance changed in healthcare institutions that have adopted affiliation? and (2) Have those institutions benefited from affiliation as much as they hoped they would? Institutions in Türkiye have adopted affiliation in recent years. Therefore, this study investigated how affiliation affected healthcare institutions' financial and organizational performance, what problems they faced, and what kind of returns they enjoyed.

3. METHOD

This study adopted a convergent mixed-method design to compare hospitals' financial and organizational performance before and after they adopted affiliation.

DEA is a non-parametric analysis technique that measures the relative efficiency values of decision-making units (DMU), which tries to produce with similar types of resources, allows the use of multiple inputs and outputs (Li, Liang, Chen, & Morita, 2008, p. 934). One of the greatest advantages offered by the DEA method to researchers is that it allows them to use the best technology among DMUs and to determine the levels of the most effective units in terms of effectiveness. Another important advantage is that it specifies the goals that ineffective units must achieve in order to be effective (Seiford, 1996, p. 105). In

recent years, DEA has been widely used in the measurement of financial performance, especially in the health sector (Ayanoğlu, Atan, & Beylik, 2010, p. 49). The most important reason for the use of DEA in healthcare is its simplicity and allowing the use of multiple inputs and outputs (Hollingsworth, Dawson, & Maniadakis, 1999, p. 166). Therefore, it was decided to use the DEA method in the analysis of the study. Researchers focus more on input-oriented models (Bahurmoz, 1999, p. 10) because healthcare administrators have more control over inputs than outputs due to the unique structure of healthcare services. Therefore, the quantitative part of this study employed an input-oriented CCR and BCC DEA model to determine hospitals' financial and organizational performance. The qualitative part of the study adopted phenomenology, which is a qualitative research method.

3.1. Ethical Considerations

This content has been complied with all the rules specified to be complied with within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive". Actions against Scientific Research and Publication Ethics, which is the second part of the directive, could not be carried out. The study was approved by the Social Sciences and Humanities Ethics Committee of Ankara Yıldırım Beyazıt University (Date: October 10, 2018, & No: 672).

3.2. Population and Sample

The study population consisted of 26 public hospitals which were not collectively affiliated according to the fully integrated model. All hospitals were in the same province. The quantitative sample consisted of ten public hospitals, the financial and organizational data of which were retrieved from the Turkish Ministry of Health database. The 10 hospitals used in the study were determined to be similar in size and one hospital from each statistical region. The qualitative sample consisted of 30 hospital administrators recruited using purposive sampling, a random sampling method.

3.3. Data and Data Collection

The quantitative data consisted of financial (total fixed costs, total variable costs, total revenue) and organizational (total number of beds, total number of outpatients, total number of inpatients, total number of surgeries) data before and the first year after affiliation (2012-2013). Permission was obtained from the Turkish Ministry of Health to retrieve the data (Date: 18/12/2018 & No: 32693113-622.03). In the study conducted by Miguel, Belda, & Vieites, (2019,

p. 435) to evaluate the effectiveness of public-private partnership hospitals in Spain, Kohl, Schoenfelder, Fügner, & Brunner, (2019, p. 279) study to measure the performance of privately-owned hospitals in 2019, and in 2020 by Torun, Ayanoglu, & Atan, (2020, p.35) the Ministry of Health in Turkey. In the study in which the financial efficiency of 825 hospitals affiliated to the Ministry of Health was examined, the DEA method was used and expense and income items (fixed expenses, variable expenses, accrual incomes, total income) belonging to hospitals were selected as input and output variables in the models created. DEA method was used in the study of Stefko, Govurova, & Kocisova, (2018, p. 15) to determine the efficiency level of health service delivery in hospitals in Slovakia, and in the study of Li & Dong, (2015, p. 121) on the efficiency of public hospitals in China, the number of beds and the number of patients were chosen as input and output variables.

The qualitative data were collected through face-to-face semi-structured interviews with 30 administrators of provincial health directorates, medical faculties, and hospitals located in different geographical regions under the central organization of the Ministry of Health. All administrators were briefed about the research purpose and procedure. Informed consent was obtained from those who agreed to participate. Interviews were conducted between March and August 2019 until data saturation. In the face-to-face interviews conducted by the researcher, the interviews were terminated by realizing that the data reached saturation when the managers encountered repetitions in their answers.

3.4. Data Analysis

The qualitative data were analyzed using NVIVO 12 Pro. Each participant was assigned a code (No:1, M; No:2, W, etc.). Some direct quotations were used to represent participants' views accurately. The DEA model was used to measure the financial and organizational performance of the hospitals. Two models were developed for analysis. The first model (financial performance) consisted of three variables: two inputs (fixed and total variable costs) and one output (revenue). The second model (organization performance) consisted of four variables: one input (number of beds) and three outputs (total number of inpatients, outpatients, and surgeries). The two models were analyzed using the Efficiency Measurement System (EMS, v. 1.3).

3.5. Limitations

This study had two limitations. In the study, the financial performance of 10 hospitals out of 26 affiliated hospitals was evaluated only in the first year after

affiliation. Second, although 21 cities had public hospitals that had adopted affiliation, we could visit only seven cities due to time and cost constraints. Therefore, the results are sample-specific, relative and cannot be generalized to all hospitals that have adopted affiliation.

4. RESULTS

4.1. Quantitative Findings

Table 1 shows the input-oriented CCR and BCC DEA findings regarding the hospitals' financial performance before and after they adopted the affiliation model.

Table 1: Input-oriented CCR and BCC DEA potential improvement outcomes (%) (Model 1)

Affiliated Hospitals	SCORE				INPUTS								OUTPUTS			
					Total Fixed Costs (+,-)				Total Variable Costs (+,-)				Total Revenue			
	2012		2013		2012		2013		2012		2013		2012		2013	
	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC
A	0.9398	1	0.6434	1	-6.02	0	-35.66	0	-36.85	0	-56.52	0	0	0	0	0
B	0.9566	0.9581	0.8051	0.9032	-4.34	4.19	19.49	-9.68	42.04	41.23	54.03	41.57	0	0	0	0
C	0.9611	0.9977	0.8843	1	-3.89	0.23	11.57	0	41.24	20.85	47.36	0	0	0	0	0
D	0.9179	0.9396	0.6506	0.6671	-8.21	6.04	34.93	33.29	37.52	24.02	63.92	61.91	0	0	0	0.01
E	0.8738	1	0.5615	1	12.62	0	43.85	0	-41	0	63.45	0	0	0	0	0
F	1	1	0.6828	0.9768	0	0	31.72	3.47	0	0	31.88	2.31	0	0	0	0
G	0.9837	1	1	1	-1.63	0	0	0	27.03	0	0	0	0	0	0	0
H	0.8631	1	0.6888	0.9403	-13.7	0	31.11	5.97	30.81	0	53.33	-5.97	0	0	0	0.01
I	0.7825	0.8256	0.6367	0.9513	21.75	17.44	36.33	4.86	51.35	26.92	63.22	17.49	0	0	0	0
J	0.9031	0.9131	0.6184	1	-9.69	-8.7	38.16	0	22.22	-8.7	39.29	0	0	0	0	0

According to the CCR model, all hospitals experienced changes in total fixed and variable costs between 2012 and 2013. According to the BCC model, A, E, and G experienced changes in total fixed and variable costs between 2012 and 2013. According to the CCR model, all hospitals but G increased their total fixed and variable costs. According to the BCC model, B, D, F, and H increased their total fixed and variable costs, whereas C, I, and J decreased their total fixed and variable costs. According to the CCR model, G was effective in terms of financial performance after the affiliation, whereas F was not. According to the BCC model, A, E, and G were effective both before and after the affiliation. Moreover, C and J were effective in terms of financial performance after the affiliation, whereas F and H were not.

Table 2: Input-oriented CCR and BCC DEA potential improvement outcomes (%) (Model 2)

Affiliated Hospitals	SCORE				INPUTS								OUTPUTS											
					The Total Number of Beds (+,-)				The Number of Inpatients				The Number of Outpatients				The Number of Operations							
	2012		2013		2012		2013		2012		2013		2012		2013		2012		2013					
	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC	CCR	BCC				
A	0.866	1	0.685	1	-	13.83	-	31.05	0	3.	21	0	0	0	0	0	0	0	0	0	26.8	0		
B	0.7183	0.7185	0.6967	0.7971	-	28.16	-	30.32	20.27	42.7	47.1	0	0	33	18.96	32.04	18.13	33.22	0	0	0	0		
C	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
D	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
E	0.5347	1	0.7951	1	-	46.52	-	20.48	0	67.8	0	0	0	0	20.68	0	0	0	0	0	82.47	0	28.83	0
F	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G	0.5642	0.7301	0.8467	0.8611	-	43.57	-	26.99	15.32	13.97	6.73	0	0	0	0	0	0	9.78	0	0	62.4	45.8	15.71	11.9.6
H	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I	0.8431	1	1	1	-	15.68	0	0	0	89.3	0	0	0	0	3.03	0	0	0	0	0	50.9	0	0	0
J	0.8039	1	0.7392	0.8111	-	19.61	0	26.07	18.91	11	11	0	0	6	8.1	37.5	0	0	0	0	13.9	0	31.08	88.8

Table 2 shows the input-oriented CCR and BCC DEA findings regarding the organizational performance of the hospitals before and after they adopted the affiliation model.

According to the CCR model, A, B, E, G, I, and J underwent a change in terms of the number of beds, outpatients/inpatients, and surgeries. According to the BCC, B, G, and J underwent a change in terms of the number of beds, outpatients/inpatients, and surgeries. Both models showed that B, G, and J were effective both before and after the affiliation. According to the CCR model, E, G, and I had an increase in the number of beds, whereas A, B, and J had a decrease in the number of beds. A, B, E, G, I, and J had an increase in the number of inpatients. No hospital had a decrease in the number of inpatients. According to the BCC, B and G had an increase in the number of beds, whereas J had a decrease in the number of beds. B had an increase in the number of inpatients, whereas J had a decrease in the number of inpatients. According to the CCR model, I reached an effective level after adopting the affiliation model.

4.2. Qualitative Findings

Thirty hospital administrators (27 men and three women) were interviewed. Participants were 31-57 years of age. Participants were assistant managers (n=4), presidents (n=4), deans (n=3), doctor faculty members (n=3), specialists (n=3), specialist doctors (n=3), professor doctor (n=1), associate professor doctor (n=1), provincial health director (n=1), assistant dean (n=1), director (n=1), chief physician (n=1), assistant chief physician (n=1), head, director (n=1), and department head (n=1) (Table 3).

Table 3: Sociodemographic Characteristics

		n (%)	Mean ± Std. Dev	Median (Min - Max)
Age (year)*			45.1 ± 6.5	
General work experience (year)*			18.9 ± 6.1	
Work experience in an affiliated institution (year)*			7.08 ± 3.6	
Work experience as an administrator (year)*			10 ± 4.08	
Work experience as an administrator in an affiliated institution (year)*				4 (1-7)
Gender	Woman	3 (10)		
	Man	27 (90)		
Marital Status	Single	2 (6.7)		
	Married	28 (93.3)		

Education (degree)	Bachelor's	8 (26.7)		
	Master's	12 (40)		
	Ph.D.	10 (33.3)		
Institution	Hospital	15 (50)		
	Faculty of Medicine	6 (20)		
	Provincial Directorate of Health	6 (20)		
	Ministry of Health	3 (10)		
Duty	Faculty Member	8 (26.6)		
	Doctor	5 (16.7)		
	Health Manager	7 (23.3)		
	Administrative Staff	3 (10)		
	Health Personnel	3 (10)		
	Specialization	4 (13.3)		
Title	Dean	3 (10)		
	Assistant Dean	1 (3.3)		
	Director	1 (3.3)		
	Assistant Manager	4 (13.3)		
	President	4 (13.3)		
	Specialist	3 (10)		
	Provincial Health Director	1 (3.3)		
	Professor Doctor	1 (3.3)		
	Associate Professor Doctor	1 (3.3)		
	Doctor Faculty Member	3 (10)		
	Specialist Doctor	3 (10)		
	Chief Physician	1 (3.3)		
	Assistant Chief Physician	1 (3.3)		
	Head of Department	1 (3.3)		
	Head	1 (3.3)		
	Director	1 (3.3)		
Total		30 (100)		

*Mean & median ± standard deviation, (min-max)

Participants stated that the affiliation model was both a necessity and a need and that hospitals experienced some organizational problems after adopting it. They noted that the model had both advantages and disadvantages and led to changes in the financial structures of the hospitals. They remarked that they

would stick to the model and that each stakeholder should participate in the process. They recommended that decision-makers intervene when necessary to turn the affiliation into an improbable structure. The interviews revealed five main themes and 15 subthemes (Table 4). The code map of the themes is shown in Figure 1 and the word cloud is shown in Figure 2.

Table 4: Main Themes and Subthemes

The Rationale for Implementing the Model	Organizational Context Problems	A Great Change	A Prestigious Outcome	The Future of the model
Need	Adaptation	Changes in Administrative Structure	Positive Outcomes for the Hospital	A Long and Continuous Process
Necessity	Resistance	Changes in Financial Structure	Positive Outcomes for the University	The necessity of Top Management Support
	Conflict	Advantages and Disadvantages of Change	Positive Outcomes for the Patient	Participation
				An Improvable Model

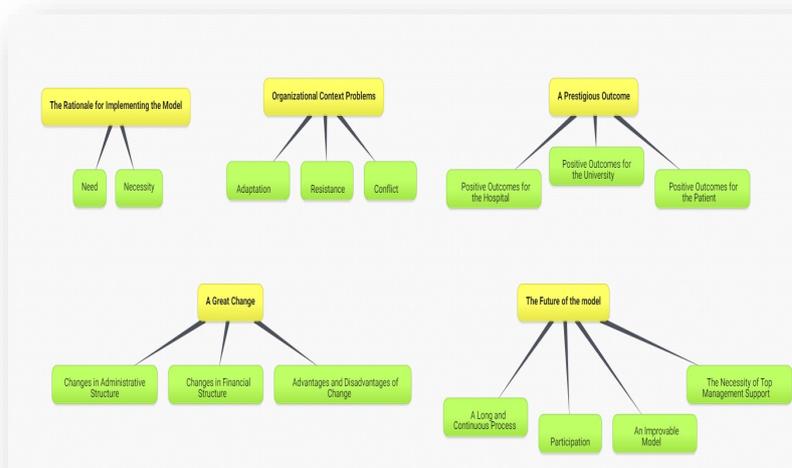


Figure-1: Concept Map

Necessity

Participants' views of the factors behind affiliation were grouped under the subtheme of "necessity."

"The affiliation was introduced as soon as the faculty of medicine opened up because you can't open up a faculty of medicine if the population is below a certain number." (No:2, M)

4.2.2. Organizational context problems

The main theme of "organizational context problems" consisted of three subthemes (adaptation, resistance, and conflict) that explained the administrative and staff-related problems that hospitals faced after they adopted the affiliation model.

Adaptation

The subtheme of "adaptation" addressed how the affiliation process started and what its characteristics were.

"Some faculty members had a hard time feeling a sense of belonging to the hospital when they first showed up. There was this realm of freedom in the hospital. I mean, everybody wore whatever they wanted. So, we had that kind of problem. No one had their uniform or ID card on them, or some grew their hair and beards." (No:7, M)

Resistance

The subtheme of "resistance" explained why and who had negative views and attitudes towards the affiliation model.

"Before our hospital adopted the affiliation model, some staff had doubts about it. They opposed it, and so, they put their foot down and caused difficulties throughout the process." (No:6, M)

Conflict

The subtheme of “conflict” addressed the administrative and staff-related problems after the hospitals adopted the affiliation model.

“While the hospital is an economic enterprise with social objectives, the university looks at things differently and prioritizes different criteria. At the end of the day, it causes a conflict of interest. Sometimes conflict is inevitable, even though deans and chief physicians are the most easy-going people. Of ten conflicts, seven or eight are caused by the same thing. This was the result of the tension after the model was introduced.” (No:20, M)

4.2.3. A great change

The main theme of “a great change” was concerned with the changes caused by the affiliation model in the hospitals. The main theme consisted of three subthemes: “changes in management structure,” “changes in financial structure,” and “advantages and disadvantages of change.”

Changes in administrative structure

The subtheme of “changes in management structure” addressed the organizational changes that the hospitals underwent after they adopted the affiliation model.

“There used to be only one person in charge of the administrative structure. But, after a while, the dean's office stepped in, resulting in the delegation of authority in hospital management. At first, we were concerned that it would cause chaos, but we didn't, thanks to the leniency of the people in charge.” (No:1, M)

Changes in financial structure

The subtheme of “changes in financial structure” addressed the economic effects and consequences of the affiliation model.

“The affiliation has resulted in an increase in both the revenues and expenses of the hospitals. This change in status (A1, A2-U3) has ended up with revenue growth. The expenses have gone up because of staff costs. The fixed costs have also gone up. Some variable costs have gone up, while others have gone down.”

(No:6, M)

Advantages and disadvantages of change

The subtheme of “advantages and disadvantages of change” was about participants’ views of the pros and cons of the organizational and financial changes the hospitals underwent after adopting the affiliation model.

“One advantage is that we'll have a successful model if it works out. One disadvantage is the conflict due to the distribution of revolving funds. It may have something to do with legislative factors or errors in practice.” (No:12, W)

4.2.4. A prestigious outcome

The main theme of “a prestigious outcome” explained the positive outcomes that all stakeholders enjoyed after the hospitals adopted the affiliation model. The main theme consisted of three subthemes: “positive outcomes for the hospital,” “positive outcomes for the university,” and “positive outcomes for the patient.”

Positive outcomes for the hospital

The subtheme of “positive outcomes for the hospital” explained how the hospitals benefitted from the affiliation model.

“Healthcare services are of higher quality, and patients are more satisfied. Besides, the model’s allowed the staff to improve themselves. We have more than 120 associate professors and professors.” (No:19, M)

Positive outcomes for the university

The subtheme of “positive outcomes for the university” concerned how the universities benefitted from the affiliation model.

“The model has some perks for the university. They get the chance to provide education in a good hospital instead of building a hospital from scratch. They also get paid by the hospital.” (No:12, M)

“We wouldn’t have had a hospital if it wasn’t for the affiliation. We would’ve only been a faculty of medicine with instructors and had one education building if it wasn’t for the affiliation...” (No:17, M)

Positive outcomes for the patient

The subtheme of “positive outcomes for the patient” explained how patients benefitted from the affiliation model.

“I have family members who have survived severe diseases. Back then, hospitals sent us to other cities for treatment, which was financially and spiritually burdening. This affiliation has made these things right; it's been great for the people of our city. We have professors and associate professors providing service for us.” (No:14, M)

4.2.5. The future of the model

The main theme of “the future of the model” addressed two questions: “What kind of problems did stakeholders experience after the hospitals adopted the affiliation model?” and “Under what circumstances can the model be sustained?” The main theme consisted of four subthemes: “a long continuous process,” “necessity of top management support,” “participation,” and “an improbable model.”

A long and continuous process

The subtheme of “a long and continuous process” was concerned with participants' views of the fact that the affiliation model was an incomplete process that would be sustained in the future.

“I think the affiliation model will go on. In fact, I think it will get better in the future.” (No:28, M) d

The necessity of top management support

The subtheme of “the necessity of top management support” addressed that all stakeholders and authorities should take responsibility for eliminating the problems caused by the affiliation model.

“I think the Ministry of Health and the Board of Higher Education should step in to help us overcome the problems” (No:4, M)

The Ministry of Health and the Board of Higher Education should work together to improve the model and benefit from it more.” (No:12, W)

Participation

The subtheme of "participation" was about participants' views that all stakeholders should participate in eliminating the problems related to the affiliation model.

“All stakeholders have responsibility throughout the affiliation process. So, all stakeholders must participate in the process...” (No:12, W)

An improbable model

The subtheme of “an improbable model” was about participants’ belief that the affiliation model needed to be improved because it was an incomplete process imbued with problems.

“The administrators (hospital and university) should be in constant communication to make sure that the affiliation model works smoothly. I believe the model will grow bigger, become more popular, and spread across Türkiye.” (No:17, M)

5. DISCUSSION

Türkiye introduced the affiliation model in 2013. This study investigated how the model affected ten hospitals organizationally and financially. The study also focused on stakeholders’ experiences with the model. The findings showed three results. First, the model helped the hospitals improve their financial structures. Second, the hospitals had a relative decrease in their expenses and a relative increase in their revenues. Third, the hospitals provided more healthcare services as they had more and more patients. The participants also stated that the hospitals had an increase in their revenues and a decrease in their debts after they adopted the affiliation model. This result is consistent with the literature. For example, Songur and Babacan (2016, p. 93) investigated the effect of the

affiliation model on hospitals and reported three results. First, the hospitals experienced revenue growth after they adopted the affiliation model. Second, it positively affected the balance of income and expenditure. Third, it resulted in an improvement in institutional budgets. Demirtaş (2016, p. 33) also found that the hospitals that adopted the affiliation model used their financial and physical resources effectively, reducing their debts.

Our results also showed that the hospitals performed more effectively and efficiently after they adopted the affiliation model. The hospitals' revenues increased due to the increase in the volume of service production, which was reflected in their bills. Taşkaya (2019, p. 563) found that hospitals had higher efficiency after they adopted the affiliation model. Emamgholipour, Afkar, Eskandri & Tavakkoli, (2015, p. 180) focused on three hospitals and reported that the hospitals had higher efficiency in healthcare service provision after adopting the affiliation model. Philips and Arthur (2008, p. 863) focused on healthcare institutions that adopted the affiliation model and reported three results. First, the healthcare institutions achieved different kinds of returns. Second, their financial structures improved. Third, their level of success in operational activity processes increased. Harris, Özgen & Özcan, (2000, p. 108) determined that the affiliation model helped hospitals undergo positive changes in their organizational and financial performance. All in all, our results are consistent with the literature.

Our results showed that after adopting the affiliation model, some hospitals experienced an Increase in their costs (revolving funds, fixed additional payments, on-call fee expenses, and out-of-hours revolving capital expenditures). Moreover, after adopting the affiliation model, the hospitals experienced an increase in the volume of health service production, which resulted in an increase in costs due to purchases. On the other hand, research shows that the affiliation model is not always beneficial for hospitals but sometimes causes some problems. For example, Pirani, Zahiri, Engali & Torabipour, (2018, p. 805) found that some hospitals experienced a reduction in their efficiency after they adopted the affiliation model. Our results also showed that the affiliation model negatively impacted administrators and staff. Ülger, Baldemir & İnanç, (2015, p. 122) focused on hospitals that adopted the affiliation model and reported that two in five physicians (42.6%) and three in ten staff (29.4%) encountered problems (understaffed, long working hours, and inadequate human resource efficiency). Ömür, Tunç and Düren(2012, p. 208) argue that new models sometimes cause new problems. Our results also pointed to some problems faced by stakeholders after the hospitals adopted the affiliation model. (Topçu, 2019) maintains that

healthcare administrators and staff experience various problems after hospitals adopt the affiliation model because there are unresolved issues regarding wages and the distribution of powers and duties. Özata and Topçu (2018, p. 42) focused on the affiliation model and determined that participants associated the model with such concepts as “shared use,” “cooperation,” and “chaos,” suggesting that the negative aspects of the model outweighed its positive aspects. All these results indicate that the affiliation model has some adverse effects. Therefore, we should remember that affiliation may have negative impacts depending on how much institutions adopt it, how well they implement it, and how internal and external factors affect its function.

The results showed that the hospitals provided more and better healthcare services after they adopted the affiliation model. Demirtaş (2016, p. 59) also detected that a hospital managed to provide more diverse healthcare services after it adopted the affiliation model. The hospital had an increase in the number of services (for the outpatient clinic), surgeries, and diagnostic procedures. Therefore, our results are consistent with the literature.

According to the affiliation legislation, both healthcare education and research services should be provided by a single tertiary hospital in a city with a population of up to 750,000 (Bilir, 2018, p. 166). Therefore, the affiliation model is implemented as an obligation in Türkiye. In this context, universities and hospitals were obliged to sign the affiliation protocol. Uğurluoğlu (2015, p. 60) argues that tertiary hospitals need to have affiliated and flexible administrative structures that allow them to be functionally independent. Ovseiko, Davies & Buchan, (2010, p. 1285) maintain that academic and clinical stakeholders should meet in a common ground to deliver publicly-funded medical innovation and quality healthcare in the UK. The researchers developed and implemented an affiliation model to that end. Research shows that institutions have different motives and reasons for adopting and implementing affiliation (Bilir, 2010, p. 166; Douglas & Barret, 2008, p. 806). In this context, we can state that hospitals should adopt affiliation or similar models to have organizational flexibility and carry out administrative management, education, and research activities independently.

6. CONCLUSION

This study focused on the effect of the affiliation model on the financial and organizational performance of ten hospitals. The affiliation model helped the hospitals undergo financial and organizational improvements. The hospitals had a relative decrease in total fixed and variable costs and an increase in total

revenues. They also had an increase in the number of inpatients, outpatients, and surgeries, increasing the capacity and diversity of the provision of healthcare services. Both quantitative and qualitative results showed that the affiliation model had great returns for the hospitals. The hospitals performed more effectively after they completed their affiliation process, suggesting that they had better organizational performance and reputation. However, it should be kept in mind that the hospitals have not yet put the affiliation model on the right track. In other words, the affiliation model is still an ongoing process. Our results indicate that hospitals can turn the affiliation model into an organizational one after improving and enriching it. The model involves different stakeholders and makes a difference in hospitals' financial and organizational performance. It has three more positive effects. First, it provides buildings for new faculties of medicine. Second, it makes hospitals more functional and helps them provide higher-quality services. Third, it allows the government to use resources allocated to health more rationally.

Despite the advantages and positive outcomes, hospitals face problems in planning and implementation as they adopt the affiliation model. For example, most faculties of medicine affiliated with hospitals are understaffed because they are recently established. Moreover, students have not yet started practical training. For three reasons, affiliation is a dynamic and flexible organizational model that will continue to be a topic of debate and a field of research in Türkiye. First, its place in the health system has not yet been entirely determined. Second, healthcare actors have not fully grasped how important it is. Third, it does not have a guide that leads institutions to success in practice.

Our results will allow all stakeholders to re-evaluate the affiliation model from a different and rich perspective. However, we need to analyze the change led by the affiliation model, develop the right plans, and put those plans into practice in the right way to ensure the model is sustained. We should also regularly assess how much the model is adopted and how well it is implemented. Researchers should recruit more participants and conduct more longitudinal studies to better understand the effect of the affiliation model on the financial and organizational performance of hospitals. More research on affiliation will contribute to the literature and keep it on the agenda.

7. CONFLICT OF INTEREST STATEMENT

There is no conflict of interest between the authors.

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9. AUTHOR CONTRIBUTIONS

NT: The idea;

NT, MK: Design;

NT: Supervision;

MÇ: Collection and/or processing of resources;

MÇ: Empirical Analysis and/or interpretation;

MÇ: Literature review;

NT, MÇ: Writing of Article;

NT: Critical review;

10. ETHICS COMMITTEE STATEMENT AND INTELLECTUAL PROPERTY COPYRIGHTS

Ethics committee principles were followed in the study. There has been no situation requiring permission within the framework of intellectual property and copyrights.

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