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How to evaluate the "Bolsa Universidade" Program in Manaus

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Abstract

The research evaluates the satisfaction level of the services provided by the Manaus Municipal Public Service School and Socio-Educational Inclusion (ESPI) to the scholarship holders of the Bolsa Universidade Program. To this end, an online questionnaire adapted from the SERVPERF model was applied, using five quality dimensions: tangible, reliability, effectiveness, assurance and empathy. It has 20 items distributed among the dimensions, where the respondent indicated their level of satisfaction through a 10-point Likert scale. It was available for eight days and had 442 respondents. After data collection, the Cronbach's alpha reliability test was performed. Then, the data were analyzed using the average and standard deviation of dimensions and items. It was observed that the best dimention was reliability, and the item with the best performance was the "reliable documentation management". On the other hand, the dimension that needs improvement is effectiveness, and the item that needs urgent improvement is "waiting in line for documentation delivery". After analyzing the data, the main conclusion was that the level of satisfaction was considered Good. In the end, suggestions for improvement were made for the critical items. For future studies, it is suggested to evaluate the level of satisfaction after applying the improvement actions.

Key-words: Bolsa Universidade; Satisfaction; Servperf;

1. Introduction

The Municipal Secretariat of Administration, Planning, and Management (SEMAD) acts as the responsible for managing the administrative system of the Municipality of Manaus and under the terms of Delegated Law No. 11 of July 31, 2013, ratifies its integration with the Administration Manaus City Council, as an institutional management body, to achieve the following purposes:

I – plan, coordinate and supervise the execution of activities related to administrative modernization;

II – coordinate and supervise the execution of human resources management;

III – implement and supervise the real estate management;

IV – guarantee the development of municipal services and ensuring the perfect integration of the Systems;

V – manage planning within the Municipal Executive Branch;

VI – offer public tenders to provide effective positions of the Direct and Indirect Administration of the executive branch;

VII – improve and train civil servants and political agents of the executive branch;

VIII – foster, implement and manage social and educational inclusion programs;

IX – plan, execute and control functional health plan activities;

X – periodically update the registration of server data.

The Secretariat's vision is to be a national reference as efficient public management, recognition of the public servant and quality in citizen service, using the following actions as strategic guidelines: Securing to citizens the access to quality public services; Promote the recognition of the public servant and modernize the public management.

The Secretariat is divided into four undersecretaries: Undersecretary of Planning and People Management; Undersecretary of Process Management; Municipal Public Service School and Socio-Educational Inclusion - ESPI; and Health Care Service of Public Servants of Manaus - MANAUSMED.

ESPI was created in 1990 and implemented in 1996, taking the current form with Delegated Law No. 11 of July 31, 2013, when the Municipal Public Service School Foundation (FESPM) and the Socio-Educational Inclusion School Foundation (FESPM) were merged (FMDS).

Thus, the new departament, with undersecretary status, became linked to SEMAD, with the mission of training the public servants, public agents and politicians of the Municipality, as well as managing the socio-educational inclusion programs of the Manaus City Hall: Programa Bolsa Universidade (PBU), Bolsa Idiomas (PBI) e Bolsa Pós-Graduação (PBPG).

Among the city hall's socio-educational inclusion programs, the oldest (with announcement published in 2009), and which offers the largest number of vacancies is the Bolsa Universidade Program, with an average of 10,000 vacancies per year and more than 100,000 vacancies offered until 2017. The program is intended for people who are not able to afford the tuition of an undergraduate degree. The Program offers 100%, 75%, and 50% scholarships, with the highest percentage scholarships being aimed at people with lower per capita income.

Considering that ESPI is responsible for each fellowship throughout their undergraduate years, it is relevant to evaluate their level of satisfaction with the services offered by the organization to continuously improve the services provided to this public.

Given the absence of this type of evaluation, the objective of this research is to evaluate the level of satisfaction concerning the services provided by ESPI to propose suggestions for continuous improvement to the program managers.

2. Theoretical Referencial

2.1 Public policy

Bittencourt and Ronconi (2016) say that public policy results from decisions made by the government with the objective of both maintaining the status quo and modifying it. According to the authors, public policies involve the fundamental decision of whether or not to do something on the part of governments.

According to Pase and Melo (2017), public policies are the result of power relations between state, society and market, synthesis of conflicts, and accord of social and political segments. Public policies are materialized through policies, programs, actions, and strategies that can be implemented directly or in partnership with private organizations. This statement is following the concept of Jacometti et al. (2016) that affirm that public policies, after being designed and formulated, unfold into plans, programs, projects,

databases or information, and research systems, being put under evaluation and monitoring after implementation.

For Crumpton et al. (2016), evaluating involves judging values of the policy implemented and aims to provide information that can improve the choice of decisions in the public sphere. Requires definition of criteria to be adopted and the set of attributes and characteristics of policies or programs to be evaluated. The criteria generally adopted are efficiency, effectiveness, effectiveness/impact, comprehensiveness, technical and scientific quality, user satisfaction and acceptance.

In addition to a clear definition of the evaluation criteria, the extent of the policy or program needs to be considered. The offer is municipal, regional or national? The target audience for policies or programs must be clearly defined.

Santos and Nunes (2016) say that public policies can be evaluated both through public investments and also by evaluating the population's satisfaction with these policies, as they enjoy these actions.

2.2 Educational Services

According to Alves, Mainardes and Raposo (2010), the characteristics of the education service can be defined as:

a) Intangibility:

It is defined by the people who perform the service, which evaluates service quality as a difficult process, because due to intangibility, there is a great subjectivity in the evaluation of the service by the client, besides the difficulty of demonstrating the attributes of this type of service;

b) Heterogeneity:

It represents the inability of companies to provide the same service each time it is requested. For example, the way the teacher teaches, and the student responds varies because it depends on the interpersonal relationships between students and teachers. This problem can be caused by factors ranging from empowering the service provider to the way the customer explained what they wanted. Employee training and the pursuit of standardization can be viable solutions to minimize this aspect. It is also important to monitor customer satisfaction and identify potential points for improvement through such monitoring;

c) Inseparability:

It is impossible to separate the provider from the service it offers. For example, teaching and learning are interlinked and not realized without the simultaneous presence of teacher and student. Importantly, there are 3 levels of interaction between the provider and the service taker: Physical presence of the client; customer presence only at the beginning and end of the service; and mental presence of the client (as happens in educational services). It is noteworthy that, regardless of the level of customer integration, it influences the results achieved in the service delivery, as well as the presence of other customers at the service site and the interaction between them may affect their perception of the final quality;

d) Perishability

The education service cannot be stored and is never uniform. Perishability represents the conflicts between supply and demand that service managers face. In seasonal services, for example, demand may be higher than supply at certain times, rendering the company unable to satisfy all who seek it.

2.3 Service User Satisfaction Assessment Methodologies

According to Pouget, Campos and Paulo (2014), the perception of quality and expectation may vary according to the consumer and their beliefs and values.

Something can be good for a consumer but may not even be perceived by someone else. Therefore, the quality and satisfaction measurement scales must be adapted and modified according to the attributes one wants to research and know. For Lopes, Pereira, and Vieira (2009), there are several evaluation models, such as ACSI, ECSI, SERVPERF, SERVQUAL among others, some of which will be presented in the next sections.

2.3.1 American Customer Satisfaction Index - ACSI

According to Lopes, Pereira, and Vieira (2009), the American Customer Satisfaction Index (ACSI) model is divided into two parts: the first is formed by satisfaction antecedents, which are of perceived quality, such as expectations and perceived value; a second is made up of the consequents, which records the recovery and loyalty.

Antecedents of Satisfaction:

a) Perceived quality: this is the customer's assessment of the physical good or service based on two factors, customization and reliability;

b) Expectations: reflects the wishes of consumers and allows comparing what the customer expected to receive from service and what he received from the company;

c) Perceived value: the perceived market quality of a physical good or service, adjusted by its relative price.

Consequents of Satisfaction:

d) Complaint: this is the result of customer dissatisfaction with a physical good or service.

e) Loyalty: is the consequence of various interactions between the parties, in which the consumer acquires confidence in the consumed services of the company. It can be defined as an intention to behave relative to the product or the supplier company.

Several studies were developed by using ACSI model (HACKL; SCHARITZER; ZUBA, 2000; JUHL; KRISTENSEN; OSTERGAARD, 2002; VILAES; COELHO, 2003; KNUTSON et al., 2004; VAN RIZYN et al., 2004; CHITTY; STEVEN; CHUA, 2007) and for further information, the ACSI model with other cases applied into service, trade and industries can be accessed throught the site <https://www.theacsi.org/ >.

2.3.2 European Customer Satisfaction Index - ECSI

According to Lopes, Pereira, and Vieira (2009), given the acceptance of ACSI, in 1998 the European Customer Satisfaction Index (ECSI) pilot project was launched, the main objective of which was to develop a satisfaction measurement instrument more suited to the European market.

Santos et al. (2017) affirm that the ECSI model relates student satisfaction to antecedent variables - image, student expectation, perceived quality, perceived value and reliability - and consequent variables - loyalty and word of mouth communication.

According to the authors, in addition to the antecedent variables adopted by the ACSI model, the ECSI model considers the antecedent variable Image, which is how the market views the company, reflecting the external prestige of the organization.

Lopes et. al (2009) realized a comparative study between ACSI and ECSI by using a sample with 2145 of customers in service sector located in the Minas Gerais state (Brazil), finding that ACSI can measure the satisfaction more accurately than ECSI.

2.3.3 SERVQUAL Model

According to Lopes, Hernandez and Nohara (2009), the scale called Service Quality Gap Analysis (Servqual), developed by Parasuraman, Zeithaml and Berry (1988), takes into account customer expectations for a given service, regarding the perception of the quality of service received.

The scale contains 22 pairs of items that can be grouped into five quality dimensions, whereas the first item in each pair identifies the expected performance level and the second item identifies the perceived service level.

For Silva, Medeiros and Costa (2009) and Fonseca (2011), the five dimensions of scale quality are:

- Tangible Aspects: includes physical evidence of the service, such as physical facilities, equipment, employee appearance, and communication materials;
- Reliability: involves performance consistency, ie, the ability to perform the promised service reliably or the provision of accurate (first) service, timely and promising;
- Effectiveness: responsiveness, customer help, and promptness in service;
- Assurance: it involves a company's competence, courtesy, and knowledge of its operations. It is a security and knowledge transmission for clients;
- Empathy: it averages the company's ability to understand and satisfy its customers' needs on an individual basis.

According to Lopes, Hernandez, and Nohara (2009), the operationalization of the scale occurs by calculating the difference between performance perceptions and service expectations. For each pair of items, an index is obtained, which is defined as the difference between the perceived service and the desired service, called the Service Superiority Measure (MSS). It can be said that the higher the MSS index, the greater the superiority of the service.

Despite its wide use, it should be noted that most studies that use the SERVQUAL model are directed to the private and non-public market.

2.3.4 SERVPERF Model

According to Silva, Medeiros and Costa (2009), based on the concept of quality as an attitude. Cronin and Taylor (1992, 1994) argue that the difference between expectation and performance, proposed by the SERVQUAL model, only measures the perception of quality, but not determines it directly. Its main determinant is the performance of the service itself. The authors argue that performance evaluation alone provides better results for measuring the quality of service, thus eliminating the need to measure expectations.

The authors developed a model for quality measurement, called SERVPERF (*Service Performance*). Although they do not agree with the theory that supports the SERVQUAL model, they believe that the dimensions used in the scale are adequate to represent the quality of service. Thus, for the construction of the SERVPERF model, they used the same dimensions of quality proposed by the SERVQUAL model. Thus, the SERVPERF model consists of 22 statements about service performance, representing the five dimensions of quality developed by Parasuraman, Zeithaml, and Berry, creators of the SERVQUAL model. Therefore, for the SERVPERF model, quality of service is represented by equation (1):

$$Q_j = D_j \qquad (1)$$

Where:

Q_j = Quality of service assessment against feature j;

D_j = Performance perception values for service characteristic j.

Affirmations are evaluated on a Likert scale ranging from 1 to 7, where 1 represents strongly disagree and 7 represents strongly agree. After applying techniques that analyze the reliability and validity of the instruments, Cronin and Taylor (1992) concluded that the SERVPERF scale has a higher reliability to measure the quality of service than the SERVQUAL scale. Also, it can be said that it is more efficient because it reduces by 50% the number of items that must be evaluated by respondents.

The application of the SERVPERF model can be found in various types of companies, such as in the restaurant sector (SILVA; MEDEIROS; COSTA, 2009), laboratories (GONÇALVES; FREITAS; BELDERRAIN, 2010), in hotels (AQUINO; JERÔNIMO; MELO, 2015), among other applications.

In summary, Miguel and Salomi (2004) reviewed the main models for measuring quality in services and concluded that there is no consensus in the literature on the most appropriate model to measure it from the clients' point of view.

2.4 Cronbach's alpha

According to Hora, Monteiro and Arica (2010), Cronbach's alpha coefficient measures the correlation between answers in a questionnaire by analyzing the profile of the answers given by the respondents. Considering that all items of a questionnaire use the same measurement scale, the coefficient α is calculated from the variance of the individual items and the variance of the sum of the items of each respondent through equation (2):

$$\alpha = \left(\frac{k}{k-1}\right) X \left(1 - \frac{\sum_{i=1}^{k} s_i^2}{s_t^2}\right) \qquad (2)$$

Where:

k = number of questionnaire items;

s_i^2 = variance of each item;

s_t^2 = total variance of the questionnaire, determined as the sum of all variances.

Gliem and Gliem (2003) establish the following concepts for Cronbach's alpha coefficient:

> 0.9 (Excellent)	> 0.8 (Good)	> 0.7 (Acceptable)
> 0.6 (Questionable)	> 0.5 (Poor)	< 0.5 (Unacceptable)

3. Methodology

3.1 Choice of Evaluation Model

Considering that the clients are scholarship holders in the middle of the academic period, therefore with little time to respond, the evaluation model chosen was the SERVPERF model, since the practicality of the model is a crucial point for their choice concerning the SERVQUAL model.

3.2 Elaboration of the Questionnaire

The questionnaire (Table 1) was divided into two sections. In the first section, twenty items were elaborated considering the five dimensions of quality adopted in the SERVPERF model: Tangible Aspects (installations), Reliability, Effectiveness, Assurance, and Empathy.

For each of the five dimensions, four items were elaborated to be evaluated using the Likert scale from 1 to 10, as follows: 1 or 2 = Very Bad;   3 or 4 = Bad;   5 or 6 = Regular;   7 or 8 = Good;   9 or 10 = Excellent

In the second section, there are five items, four of which are multiple-choice and one item is open to scholarship suggestions. The Table 1 contains the SERVPERF questionnaire adapted and applied to the scholarship holders of the Bolsa Universidade program to assess their satisfaction.

3.3 Sample Size Definition

The sample size determinant chart was used to define the sample size (Chart 1), considering: a) the total population of 76,802 scholarship holders; b) The 95% reliability level; c) the sampling error of 5%; d) Split 50/50.

Assurance level: according to Sebrae/MG (2013), the assurance level is a statistical measure that indicates the probability of repeating the results obtained if the same survey is performed again.

Sample error: according to Sebrae / MG (2013), the sampling error identifies the variation of the results of a survey. For example, a 5% sampling error indicates that the percentages of responses obtained may vary by plus or minus 5%.

Split:

> The *split* in the sampling table shows the level of variation of the responses in the survey, that is, the degree of homogeneity of the population. A more homogeneous population corresponds to a population that has similar characteristics such as income level, age, gender, etc. Thus, a 50/50 split indicates much variation among respondent responses (more heterogeneous population). Already an 80/20 split indicates a smaller variation in responses (more homogeneous population). (SEBRAE/MG, 2013, P. 32).

Table 1: Scholarship Satisfaction Measurement Questionnaire

Dimensão	Itens	Resposta
QUESTIONÁRIO		
Objetivo: Avaliar seu nível de satisfação com os serviços prestados pela ESPI		
Todas as informações serão tratadas confidencialmente para fins de pesquisa		
Seção 1: Questionário Adaptado do Modelo SERVPERF		
Para tanto, avalie de 0 a 10 o seu nível atual de satisfação com cada item abaixo.		
Escala: 1 ou 2 = Muito Ruim; 3 ou 4 = Ruim; 5 ou 6=Regular; 7 ou 8=Bom; 9 ou 10=Excelente		
Aspectos Tangíveis (instalações)	1) A localização da ESPI na cidade	
	2) O estacionamento da ESPI	
	3) Facilidade de encontrar o local de entrega de documentação na ESPI	
	4) As instalações da ESPI são confortáveis	
Confiança	5) A ESPI é pontual na entrega de seus serviços	
	6) A capacidade da ESPI em solucionar seus problemas com as bolsas	
	7) O processo de seleção é confiável	
	8) A gestão dos documentos por parte da ESPI é confiável	
Eficácia	9) A capacidade dos Colaboradores da ESPI em sanar as dúvidas	
	10) O Tempo de espera na fila para entregar documentação foi menor que 30 Minutos (Acima de 30min (1 a 5); Abaixo de 30 Min (6 a 10)	
	11) O tempo para resolver alguma reclamação	
	12) Os colaboradores da ESPI respondem prontamente aos pedidos	
Garantia	13) A ESPI executa as responsabilidades dela descritas em contrato com o bolsista	
	14) Os colaboradores têm conhecimento para responder as perguntas dos bolsistas	
	15) A garantia de segurança dos bolsistas dentro das instalações da ESPI	
	16) A comunicação da ESPI disponibiliza informações relevantes aos alunos (Ex: Revisão de Percentual, Suspensão, Prorrogação de Vigência, etc)	
Empatia	17) A ESPI dá atenção individual ao bolsista	
	18) A Capacidade dos colaboradores da ESPI em identificar suas necessidades	
	19) Os colaboradores da ESPI demonstram interesse em lhe atender	
	20) Os colaboradores da ESPI são educados	
Seção 2: Dados Demográficos dos Respondentes		
21) Sexo: Masculino/Feminino		
22) Qual sua faixa etária? Entre 18 e 30 anos; Entre 31 e 40 anos; Entre 41 e 50 anos; Mais de 50 anos		
23) Qual sua situação atual ? Cursando; Suspenso; Desligado; Formado		
24) Na sua opinião, as questões foram claras e objetivas?		
Agradecemos por sua participação. Sinta-se à vontade de sugerir propostas de melhorias		

Source: Adapted from Fonseca (2011)

POPULAÇÃO	ERRO AMOSTRAL = +/- 3%		ERRO AMOSTRAL = +/- 5%		AMOSTRAL =+/- 10%	
	SPLIT 50/50	SPLIT 80/20	SPLIT 50/50	SPLIT 80/20	SPLIT 50/50	SPLIT 80/20
100	92	87	80	71	49	38
250	203	183	152	124	70	49
500	341	289	217	165	81	55
750	441	358	254	185	85	57
1.000	516	406	278	198	88	58
2.500	748	537	333	224	93	60
5.000	880	601	357	234	94	61
10.000	964	639	370	240	95	61
25.000	1.023	665	378	243	96	61
50.000	1.045	674	381	245	96	61
100.000	1.056	678	383	245	96	61
1.000.000	1.066	678	383	245	96	61
100.000.000	1.067	683	384	246	96	61

Chart 1: Sample Size Determinant for 95% Reliability
Source: Sebrae (2013)

Due to the high number of fellows and time constraints, the institution has made available the electronic contacts of 11500 fellows, which is the population considered.

So, considering the values written in Chart 1, for 95% of reliability, +/- 5% sampling error and 50/50 split, the sample to be representative must have between 370 and 378 respondents, then it was fixed as target a sample with at least 400 respondents.

3.4 Pilot Test Application

The questionnaire was transformed into a Google® form format and randomly sent to 1037 fellows (approximately 10% of the 11500 samples) via e-mail. The form was available for three days between November 2 and 5, 2017, and of the total emails sent, only 80 were answered, which is 7.7% of the 1037 fellows invited to answer the questionnaire. Considering that in the item "In your opinion, the questions were clear and objective?" It was found that the majority (96%) answered "Yes", it was decided to apply the questionnaire without changes to the rest of the population considered (10,463 scholars), thus totaling the 11,500 fellows. It is noteworthy the low rate of return of answers of the pilot questionnaire (7.7%), below the 25% of return, is expected by the authors Marconi and Lakatos (2005).

3.5 Application of the definitive test

After applying the pilot test and verifying that the questionnaire was understandable to respondents, it was sent to the remaining sample of 10,463 fellows. The questionnaire was available for eight days, between November 6 and 13, 2017 and had 442 respondents, which is equivalent to 3.84% of the total people invited to participate.

3.6 Reliability Test

Cronbach's alpha reliability test was performed on the IBM SPSS Statistics® Software.

From the tests done in each of the five dimensions, the Tangible Aspects, Reliability, Effectiveness, and Assurance dimensions have Cronbach's Alpha between 0.8 and 0.9 (Chart 2), which, according to Gliem and Gliem (2003) classifies the reliability level of the questionnaire as Good.   The complete questionnaire obtained Cronbach's alpha 0.96, which indicates an excellent reliability level according to the authors.

Dimensions	Alpha Cronbach	Number of itens
Tangible aspects	0.833	4
Reliability	0.874	4
Effectiveness	0.873	4
Assurance	0.883	4
Empathy	0.928	4

Chart 2: Questionnaire Dimensions Reliability Statistics

Source: Author

4. Discussion

4.1 Respondents Profile

Regarding gender, 67% of respondents are female and 33% male. Regarding the age group, 60.41% are between 18 and 30 years old, 30.54% are between 31 and 40 years old, 7.24% are between 41 and 50 years old and 1.81% are over 50 years old. Concernig with the current (november, 2017) situation of the scholarship holder: 58% were studying, 33% already graduated, 6% had been disconnected from the program and 3% were suspended (Figure 1).
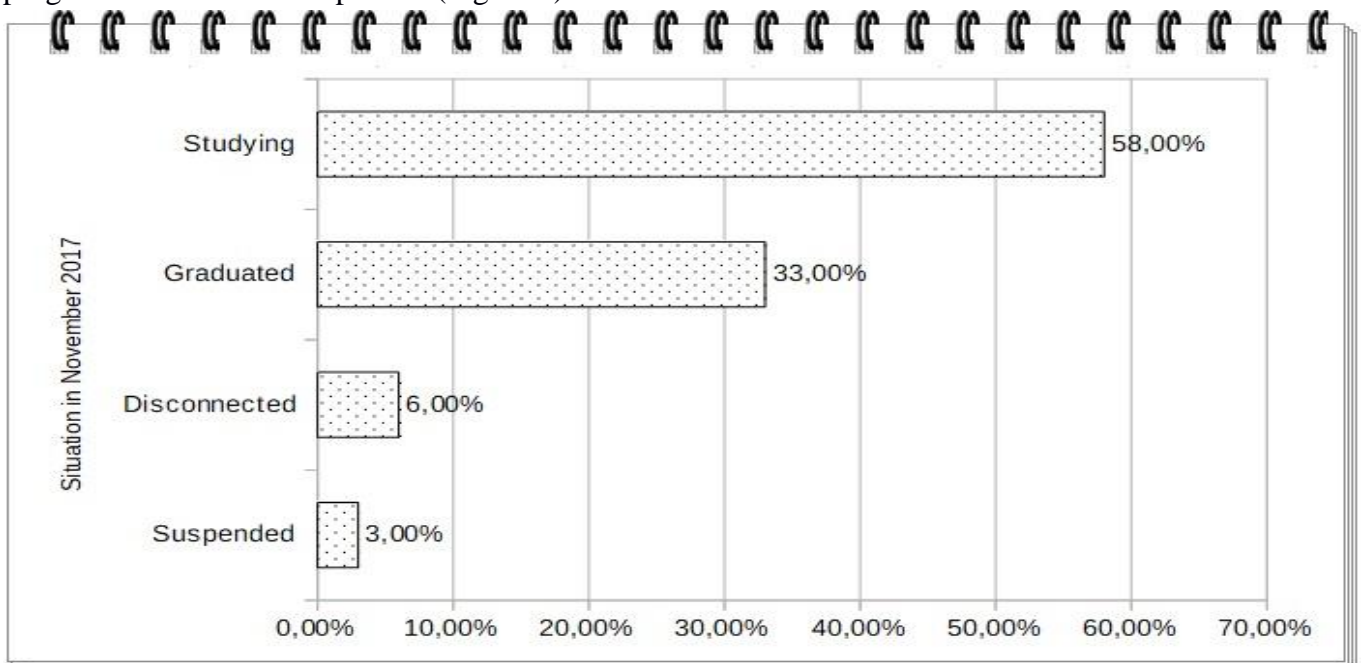

Figure 1: Respondents Profile Regarding Current Status in November 2017

Source: Author

Dimensão	Item	Média	Desvio Padrão	Média da Dimensão	Desvio padrão da Dimensão
Aspectos Tangíveis	1) A localização da ESPI na cidade	7,08	2,58	7,58	2,30
	2) O estacionamento da ESPI	7,97	2,11		
	3) Facilidade de encontrar o local de entrega de documentação na ESPI	7,61	2,33		
	4) As instalações da ESPI são confortáveis	7,65	2,03		
Confiança	5) A ESPI é pontual na entrega de seus serviços	7,99	2,05	**8,19**	**1,98**
	6) A capacidade da ESPI em solucionar seus problemas com as bolsas	7,99	2,02		
	7) O processo de seleção é confiável	8,32	2,04		
	8) A gestão dos documentos por parte da ESPI é confiável	8,47	1,75		
Eficácia	9) A capacidade dos Colaboradores da ESPI em sanar as dúvidas	7,94	2,07	7,45	2,26
	10) O Tempo de espera na fila para entregar documentação foi menor que 30 Minutos (Acima de 30min (1 a 5); Abaixo de 30 Min (6 a 10)	6,93	2,47		
	11) O tempo para resolver alguma reclamação	7,31	2,24		
	12) Os colaboradores da ESPI respondem prontamente aos pedidos.	7,60	2,15		
Garantia	13) A ESPI executa as responsabilidades dela descritas em contrato com o bolsista	8,38	1,81	8,10	1,94
	14) Os colaboradores têm conhecimento para responder as perguntas dos bolsistas	8,00	1,96		
	15) A garantia de segurança dos bolsistas dentro das instalações da ESPI	8,16	1,82		
	16) A comunicação da ESPI disponibiliza informações relevantes aos alunos (Ex Revisão de Percentual, Suspensão, Prorrogação de Vigência, etc)	7,84	2,13		
Empatia	17) A ESPI dá atenção individual ao bolsista	7,76	2,18	7,74	2,15
	18) A Capacidade dos colaboradores da ESPI em identificar suas necessidades	7,66	2,08		
	19) Os colaboradores da ESPI demonstram interesse em lhe atender	7,64	2,23		
	20) Os colaboradores da ESPI são educados	7,92	2,10		

Chart 3: Averages and standard deviation of Satisfaction by Dimension and Item

Source: Author

4.2 Overall Performance of Dimensions

From the results obtained, it is observed that the general satisfaction level of the fellows is good, considering that the total average attributed through the questionnaire was 7.81.

The dimension with the highest average attributed by respondents is the confidence dimension (8.19). On the other hand, the one with the lowest average attributed is the effectiveness dimension (7.45). The average and standard deviation of each dimension can be seen in Chart 3.

4.3 Performance by Dimension

To detail each of the five dimensions evaluated, the results were divided into the following topics.

4.3.1 Tangible Aspects

Chart 3 shows that the tangible aspects dimension averaged 7.58, the second-worst average among scholarship holders. The standard deviation of this dimension is 2.30, the highest standard deviation among the five evaluated, thus demonstrating greater variability among the responses collected. The Figure 2 shows each item of this dimension in detail. It shows that item 2, referring to the institution's parking lot was the one that obtained the best evaluation (7,97). Item 1 referring to the location of the institution in the city obtained the lowest average (7.08) among the items.
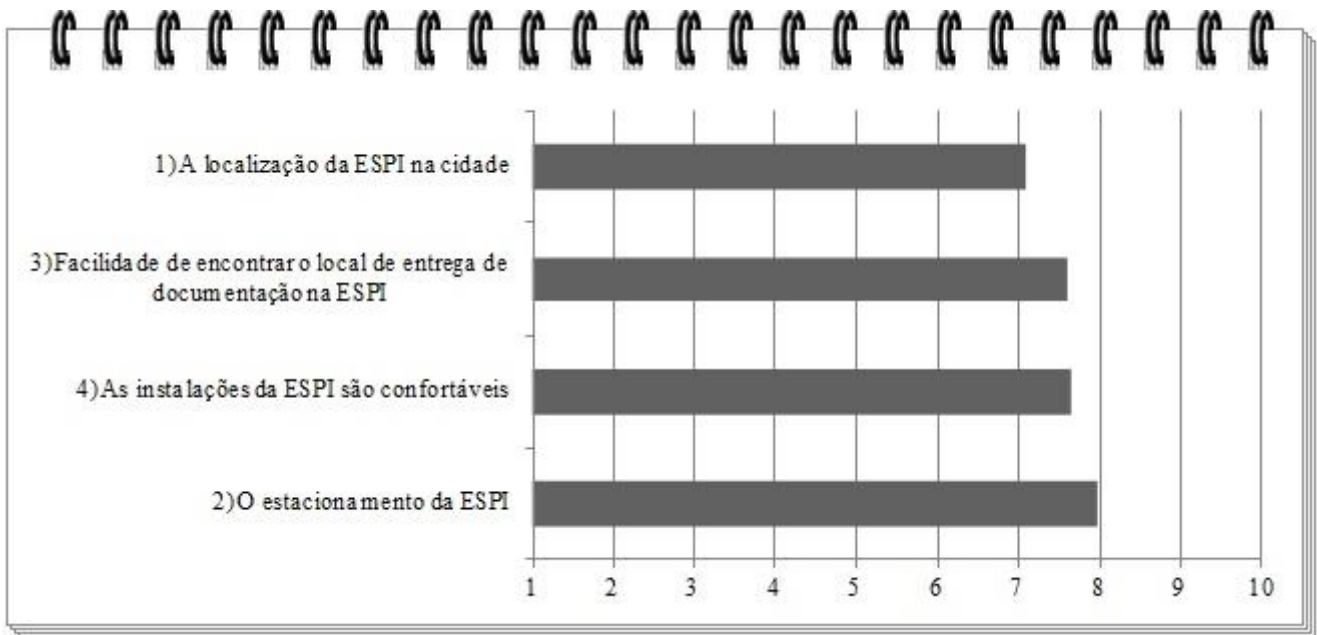
Figure 2: Averages of Tangible Aspects Dimension

Source: Author

4.3.2 Reliability

Chart 3 shows that the reliability dimension obtained the highest average (8.18).   The standard deviation of this dimension is 1.98, the smallest standard deviation among the five evaluated dimensions, demonstrating that the reliability dimension is the best evaluated and has the lowest variability in the answers.   Figure 3 shows that item 8, referring to the institution's management of documents, was the one that obtained the best evaluation (8.47) in this dimension. Items 5 and 6, regarding the punctuality in the delivery of services and the ability to solve problems associated with the benefit, respectively, obtained the lowest average (7.99) among the items.
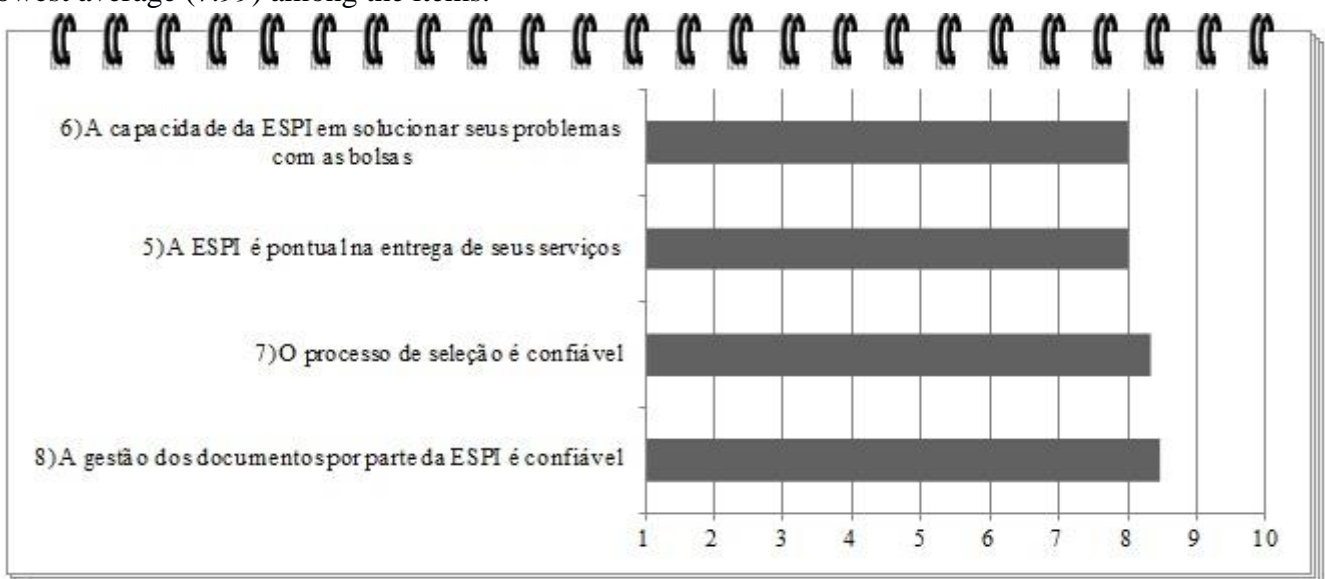
Figure 3: Average of Reliability Dimension

Source: Author
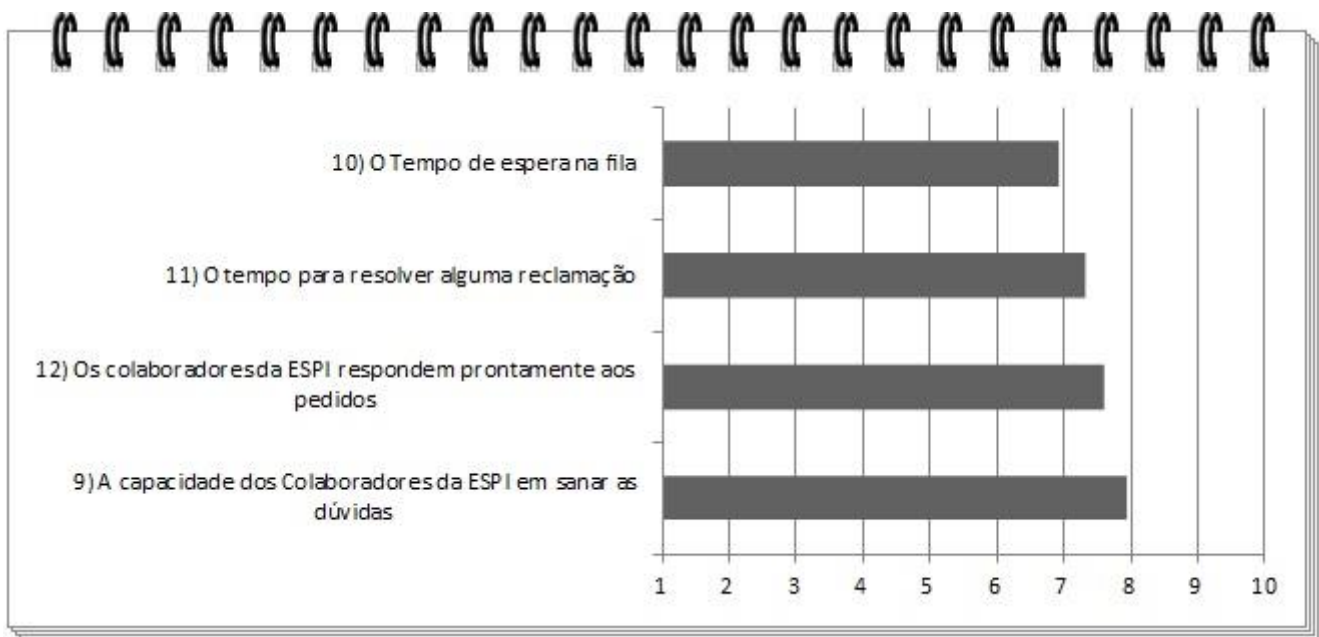
Figure 4: Average of Effectiveness Dimension
Source: Autor

4.3.3 Effectiveness

Chart 3 shows that the effectiveness dimension averaged 7.45, the lowest average among the others. The standard deviation of this dimension is 2.26, the second-largest standard deviation among the five dimensions evaluated. Therefore, the effectiveness dimension obtained a worse evaluation by the scholarship holders, having the lowest average attributed. Figure 4 shows that item 9, referring to the ability of employees to answer questions, was the one that obtained the best evaluation (7.94) in this dimension. Item 10, on the waiting time in line at the time of delivery of documentation, obtained the lowest average (6.93) among the items.

4.3.4 Assurance

Chart 3 shows that the assurance dimension obtained an average of 8.10, the second-largest average among the dimensions. Figure 5 shows that item 13, which refers to the execution of the responsibilities provided for in the contract, was the one that obtained the best evaluation (8.38) in this dimension. Item 16, regarding the availability of relevant information to the fellows, obtained the lowest average (7.84) among the items.

4.3.5 Empathy

Chart 3 shows that the empathy dimension obtained an average of 7.74 among the fellows.
Figure 6 shows that item 20, relating to the education of the institution's employees, was the one that obtained the best evaluation (7,92) in this dimension. Item 19, referring to the interest on the part of employees to serve the fellows, obtained the lowest average (7.64) among the items.
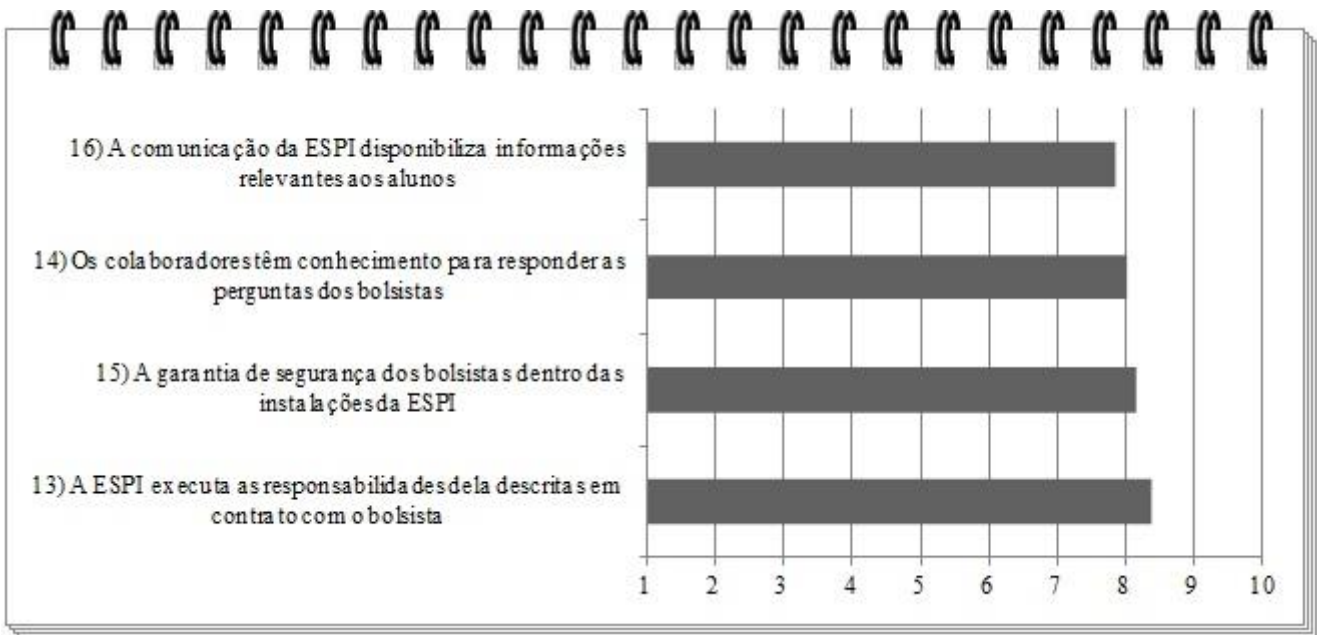
Figure 5: Average of Assurance Dimension
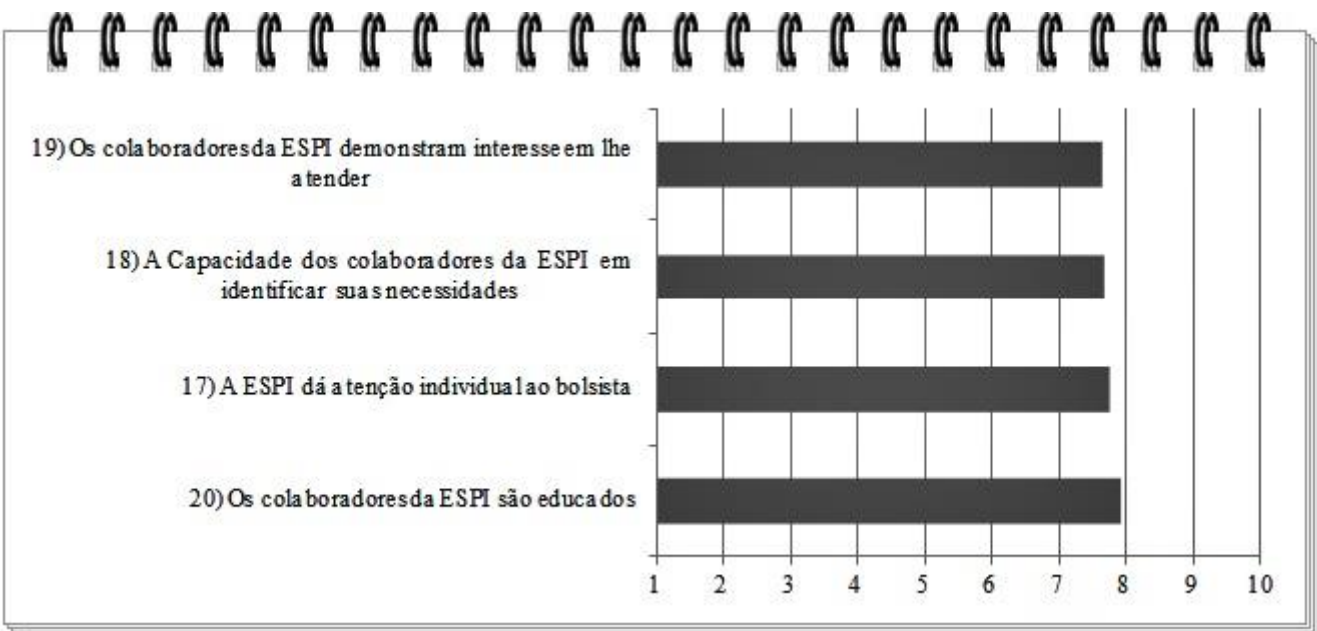
Source: Author

Figure 6: Average of Empathy Dimension

Source: Author

4.4 Five lowest performing items

After the analysis per dimentions, it was sorted the items in ascendent order of average, in order to identify the five lowest itens, as can be viewed in Figure 7: item 10) Queue wating time (6,93); Item 1) ESPI's location in the city (7,08); Item 11) The time to resolve any complaints (7,31); Item 12) ESPI employees respond promptly to requests. (7,60); and Item 3) Ease of finding the place of documentation delivery at ESPI (7,61).
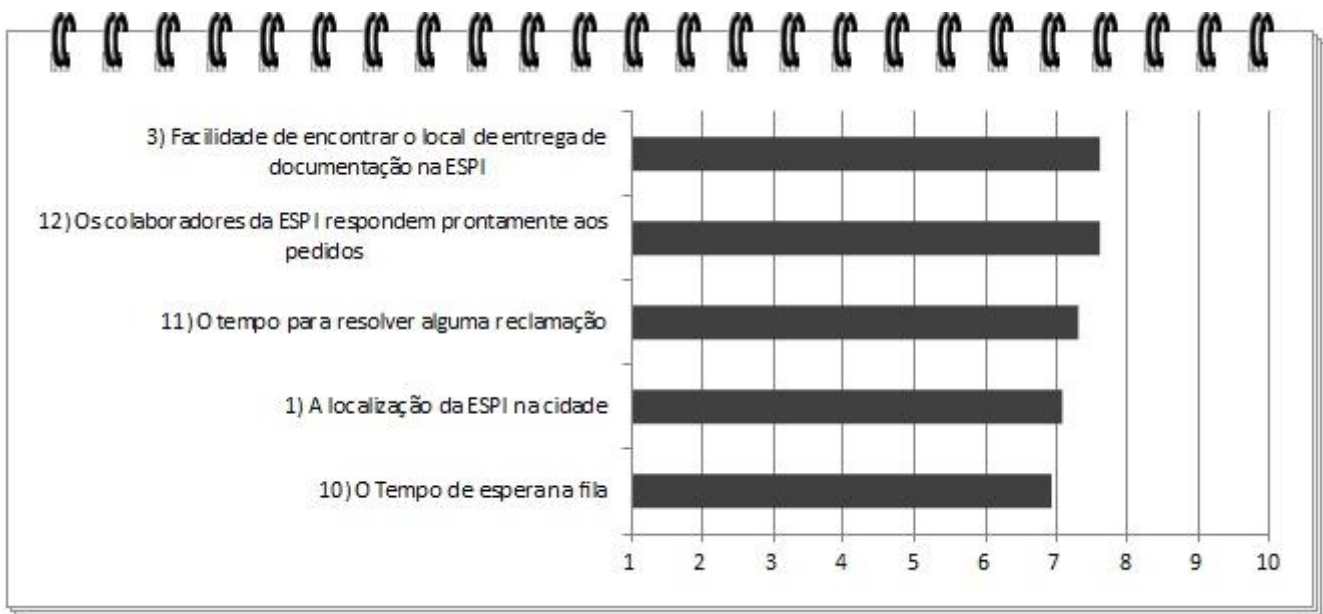
Figura 7: Average of Critical Items
Source: Author

After checking the five lowest-performing items, suggestions were made for improvements to each of the items, as noted in the following topics.

4.4.1 Item 10 –   Queue waiting time (6,93)

It was observed that the item with the lowest performance was the item related to waiting time in the queue for delivery of documentation. So, the mais suggestions for improvements are:

- Disseminate the documentation and how to obtain the required documents;
- Encourage the delivery of documentation in the first days;
- Training of analysts responsible for receiving documentation;
- Use the waiting time for awareness about the rights and duties of future fellows;
- Increase days for documentation delivery.

4.4.2 Item 01– ESPI's location in the city (7,08)

The location of ESPI in the city was the item with the second-lowest performance.

This item obtained several observations from the scholars who affirmed that ESPI's location is far from other areas. It was also reported the difficulty of access to the local due to the limited amount of public transport lines in this area of the city.

Considering the impossibility of relocating, suggestions were made to mitigate the negative impact of this item on the satisfaction level of the fellows.

- Decentralize services to respective Higher Education Institutions;
- Train the partners of the Education Institutions;
- Providing ESPI agents at partner Higher Education Institutions.

4.4.3 Item 11 – The time to resolve any complaints   (7,31)

Another underperforming item was the time for the institution to resolve grantees' complaints. It is

suggested to constantly train the employees involved in the direct attendance to the scholarship holder.

4.4.4 Item 12 – ESPI employees respond promptly to requests. (7,60)

Another underperforming item was the item related to the promptness of responses to requests and complaints from the fellows.

- Constantly train employees involved in direct attendance to the scholarship holder;
- Avoid high employee turnover in the service sector.

4.4.5 Item 03 – Ease of finding the place of documentation delivery at ESPI (7,61)

The item on ease of finding the place of delivery of documentation also underperformed the fellows. The following suggestions for improvement for this item:

- Disseminate the averages of getting to the place (bus lines) and places of reference.
- Attach signs on the day of delivery of documentation.
- Verify the possibility of delivery of documentation to partner institutions.
- Check the possibility of delivery of documentation at points distributed throughout the city.

5. Final considerations

The article aimed to evaluate the level of satisfaction of scholarship holders of the "Bolsa Universidade" Program about the services provided by ESPI, the agency that manages the Program, to propose improvements to managers.

To this end, a questionnaire consisting of 20 questions adapted from the SERVPERF model, with four multiple-choice questions for characterization of the population and an open question for suggestions for improvement were prepared. The questionnaire was sent via email to the fellows.

Based on the survey results, it was observed that Reliability is the dimension that obtained the best performance (8,19) among the five dimensions evaluated, indicating that the fellows have between good and excellent levels of confidence in the services provided by ESPI. On the other hand, the Effectiveness dimension obtained the worst performance (7.45) among the evaluated dimensions, indicating that there is a need for improvements in this dimension.

In addition to the overall assessment, the five items that urgently need improvement are: 1) Queue wait time; 2) The location of ESPI in the city; 3) The time to resolve any complaints; 4) The promptness of the answers given by the collaborators to the scholarship requests; 5) The ease of finding the place of delivery of documentation.

The most relevant suggestions for improvements were: 1) Employee training; 2) Decentralize services; 3) Avoid high employee turnover; 4) Fellowship awareness about their rights and duties; 5) Achieve actions in partnership with the Higher Education Institutions;

For future studies, it is suggested to evaluate the level of satisfaction after applying the improvement actions, to evaluate the level of satisfaction of users of the ESPI website and the partner institutions of higher education.

Finally, it can be said that the overall satisfaction level of the fellows with this program was considered

good (average of 7.81) and that ESPI can continuously improve its services from effective actions made through continuous performance evaluations with its beneficiaries.

6. Acknowledgment

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