

IMPACT OF WEB QUALITY ON EMPLOYEES' SATISFACTION IN INDONESIA STATE EMPLOYMENT DEPARTMENT

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Abstract

The State Employment Department (BKN) had applied information technology in employee data management since 2011. However, flaws were found in the system, such as occurrence of inaccurate data and complicated navigation. This study was aimed at analyzing the satisfaction of BKN staffs in using DMS web. Web quality was assessed using 3 dimensions: usability, information quality and service information quality. These 3 dimensions were then associated with the satisfaction of BKN staffs as the users. Data was collected through questionnaires to 206 staffs with authorized accesses to the web. The results showed that the quality of three dimensions of the web influenced users' satisfaction.

Keywords: *E-government, employee satisfaction, user satisfaction, web quality, technology administration*

INTRODUCTION

The state employment department (BKN) is an Indonesian government institution managing documents of government employees, including in electronic forms. Employee performance is managed via web <https://dms.bkn.go.id>. Problems encountered in the system were occurrence of inaccurate data and complicated navigation. Accurate and updated employee data was of absolute necessity as it concerned with the management of human resources performance within government institutions.

Information technology in government institutions created efficient management system [1][2][3], and elevated the effectiveness of human resources management [4]. [5] figured out that the failure of e-

government in developing countries was caused by lacking sustainability of the application system and insufficient performance of the application system to meet the expected results. Another issue was inadequate infrastructure provision that possibly hindered the application use [6] [7].

The utilization of the web <https://dms.bkn.go.id> had never been evaluated despite having implemented since 2011. Evaluation was urgent as flaws triggered serious issues. It could be done through analyzing the web quality. The concept of measurement quality such as SERVQUAL was applicable to accomplish evaluation [8] [9]. Yoo and Donthu stated that the quality of a web could be measured through 4 dimensions; ease of use, aesthetic design, processing speed, and interactive respon-

siveness [10]. Huizingh focused on content and design [11]. Lociacono, Watson & Goodhue, developed web quality measurement through measurement of interaction quality between users and the web [12].

Barnes and Vigen formulated 5 dimensions to measure web quality: usability, design, information, trust, and empathy [13]. Yang et al also stated that web service quality should be assessed by using 5 factors, such as usability, usefulness of content, adequacy of information, accessibility and interaction [14]. Meanwhile Parasuraman, Zeithaml & Malhotra stated that e-service quality included efficiency, fulfillment, system availability and privacy [15].

Barnes & Vidgen and Al-Manasra, Zaid, & TaherQutaishaf stated that 3 main factors used to measure web quality were information quality, interaction and service quality, and information content [13] [16]. This study was to analyze the quality of DMS web associated with BKN employee satisfaction as web users.

RESEARCH METHODOLOGY

The study was intended for BKN employees with access authorities to

<https://dms.bkn.go.id> web, in BKN centre. There were 206 employees having web accesses. Data was collected through questionnaires made in *Likert* scale 1 to 5. Score 1 indicated most negative response, meanwhile score 5 indicated most positive response.

Web quality was measured using 3 variables, namely usability, information quality and service interaction quality [17]. The model of the study was showed in Figure 1, showing DMS web user satisfaction: usability, information quality and service interaction quality.

Usability was quality concerning site layouts, such as interface, user-friendly, navigation and overview for users [17]. *Information Quality* was quality of web content; information accuracy, format and relevance [17]. *Service Interaction Quality* was quality of service interaction utilized by users when exploring deeper into the web, such as issue of transaction security and information safety, personalization and communication [17]. The correlation between web quality variable and user satisfaction was analyzed using linear regression.

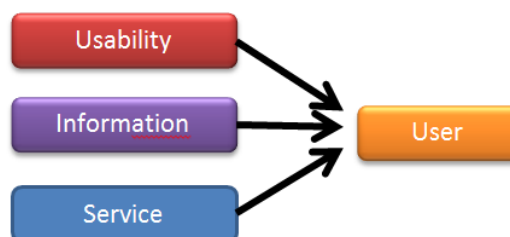


Figure 1. Model of the Study

RESULTS AND DISCUSSION

Respondent Description

From 206 questionnaires distributed in BKN center, 200 respondents submitted the answers. Distribution of educational background, age and gender was showed in Figure 2.

The majority of employees in BKN center that manage employment data came from senior high school background (54%), and most of them were beyond 40 years old (86%) and 70% of employees were male.



Figure 2. Respondent Distribution Based on Educational Background and Age

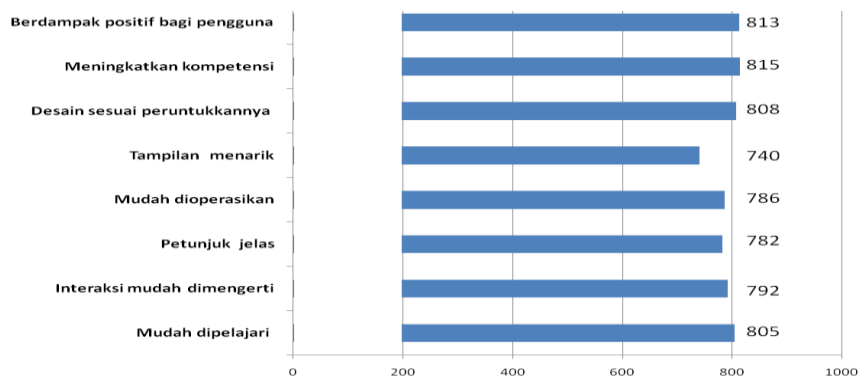


Figure 3. Respondent Assessment on Usability

In reference to Figure 3, there were several aspects respondents considered inadequate, such as unattractive web interface, easy-to-use and clarity of instructions. Web interface was considered basic, probably as DMS web was not meant for commercial web but application web. In DMS web, instruction and navigation were not enhanced with support menu so users encountered difficulties in understanding the navigation functions.

In general, respondent assessment on information quality indicated dissatisfaction

(Figure 4). Several aspects to improve were details of data, data accuracy and punctuality of data presentation. In several occurrences, inaccurate data emerged as showed in Figure 5. Search result showed inaccuracy between employee ID number and letter of staffing decision.

The role and precision of scanning staffs should be emphasized as to diminish negligence during document uploading to guarantee accurate, relevant, and trust-worthy data provision.

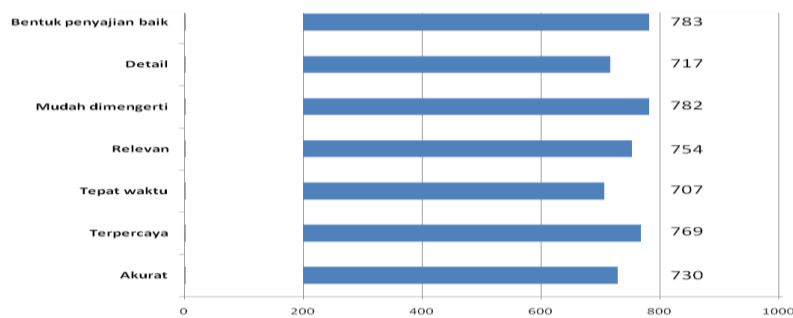


Figure 4. Respondent Assessment Scores on Information Quality

JENIS DOKUMEN	NAMA	NIP LAMA	NIP BARU	DIPINDAI
<input type="checkbox"/> IJAZAH	MAWARDI	390008732	195602161983031008	✓
<input type="checkbox"/> D2/NP NIP	MAWARDI	390008732	195602161983031008	✓
<input type="checkbox"/> SK CPNS	MAWARDI	390008732	195602161983031008	✓
<input checked="" type="checkbox"/> SK PNS	MAWARDI	390008732	195602161983031008	✓
<input type="checkbox"/> DRH	MAWARDI	390008732	195602161983031008	✓

DAPKAR - Lampiran Surat Keputusan Kepala Dinas Sosial Propinsi Daerah Istimewa Aceh No. 107/UP/DS/1985, tgl. 23-1-1985.

1. Nomor Urut : - 5 -
 2. Nama : MOELAMAD
 3. N i p : 390008776
 4. Tempat dan tanggal lahir : Panterik (A. Besar) 1-6-1953

Keputusan 5. Jabat : Gubernur Kepala Daerah Istimewa Aceh.
 Pengangkatan 6. Nomor/tgl. : 813.1/SK/1359/1983, tgl. 4-10-1983
 sebagai Calon 7. Gol./ruang gaji : I/a.
 Pegawai Negeri 8. Masa kerja gol. : 9 thn. - bln.
 Sipil Daerah 9. Gaji pokok : Rp. 16.800 (60%)

Figure 5. Sample of Inaccurate Staffing Decree

Figure 6 showed respondent assessment scoring towards service interaction quality. The results showed that data security should be enhanced. The validation team in employment management should be empowered well to ensure valid information.

The Influence of Web Quality Towards DMS Web User Satisfaction

Table 2 (a) showed that usability, influenced BKN staffs satisfaction as the users. To prove so, the coefficient regression equation on this variable showed significance score (a) lower than 0.05. Similar outcomes

were also resulted from other variables; information quality and service information quality. The significant value (b and c) on regression equation coefficient showed scores lower than 0.05. To conclude, the satisfaction of DMS web users was influenced by usability, information quality, and service information quality of the web.

The three variables: usability, information quality, service information quality also simultaneously influenced satisfaction of web users which was indicated by significant value of 0.000 in Table 2 (b).

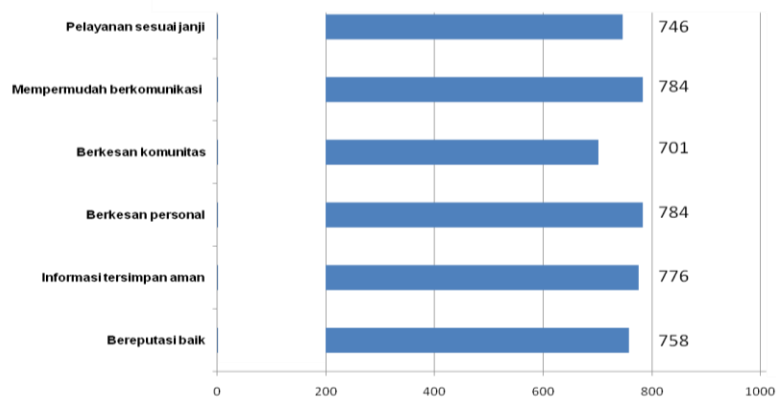


Figure 6. Respondent Assessment Scores on Service Interaction Quality

Table 2 (a). Coefficients of Regression Equation

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	6.037	1.632		.000
Usability	.217	.063	.170	.001 (a)
Information Quality	.435	.070	.357	.000 (b)
Service information Quality	.625	.075	.438	.000 (c)

Dependent variable: user satisfaction

Tabel 2 (b). Anava

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2792.966	3	930.989	163.444	.000 ^a
Residual	1116.429	196	5.696		
Total	3909.395	199			

a. Predictors: (Constant), Usability, Information Quality, Service Information Quality

b. Dependent Variable: User Satisfaction

Table 2 (c). Determinant Coefficient

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845 ^a	.714	.710	2.387

a. Predictors: (Constant), Usability, Information Quality, Service Information Quality

The influence of the three variables towards web users' satisfaction was indicated by determinant coefficient value of 0.710 (Table 2(c)), meaning that 71% DMS web user satisfaction was influenced by usability, information quality, service information quality. It implied that the influence of the three variables on user satisfaction was significantly high.

The findings showed that age and educational background distribution did not affect on satisfaction of DMS web users. Davis, Bagozzi, and Warshaw; Venkatesh and Davis; Chang and Yang stated that technology acceptance was determined by attitude and behaviour [18][19][20]. Behaviour would be influenced by age [21]. Age distribution indeed was homogenous, but not educational background. Although 54 % employees were graduated from senior high school but it did not influence the users satisfaction of technology. It implied that there should have

been other factors determining users satisfaction.

As DMS web users' satisfaction was influenced by usability, information quality, and service information quality, several aspects of the three dimensions should be improved. Janita, M. S., and Miranda, F. J.; AL-Zoubi, M and AL-Zawaideh F. stated that web with high usability could contribute significantly to user satisfaction [22][23]. Despite already having sufficient web design highlighted in descriptive analysis on usability, it should still be enhanced as it was considered unattractive. Thus, DMS web should not be less attractive than commercial web, such as in web page background and layout colors.

The next aspect needed more attention was the information produced. Al-Manasra stated that the personalization on the process of interaction and transaction security could improve user interest on the web [16]. Data accuracy and security should be ensured. In

other words, every BKN staff should ensure valid and secure personal data that no other parties could manipulate.

The utilization of information technology to increase the efficiency of management system demanded consequences for the authority. Government as DMS web provider should consider several issues, one of which is infrastructure provision to support the web application. Sufficient infrastructure supporting web could ensure satisfaction as it guarantees sustainable communication between user and the web. As stated by Siau and Long; Srivastava and Teo; and Krishnan and Teo that infrastructure investment on communication could enhance coverage and quality of service [4][6][24]. Similar notion was also delivered by Karatepe, Yavas and Babakus; and Rosenberg that good communication network provision affected user satisfaction and competitive advantage of an organization [25][26]. Sufficient infrastructure support is urgent due to the fact that service information quality influenced significantly to user satisfaction in utilizing the web.

CONCLUSION AND SUGGESTION

DMS web as one of the media utilized to manage government employee performance should sustain user interest. The sustainable utilization should be supported with user competence in form of hard skills as well as trust towards the web. Improving data accuracy and web interface were proven necessary.

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