

A COMPARISON OF WEB-BASED AND PAPER-AND-PENCIL JOB SATISFACTION SURVEYS

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Abstract

Parallel to the rising availability and application of Web-based organizational research, the issue of its validity becomes increasingly important. The research was designed to reveal any existing differences in job satisfaction survey data gathered using Intranet and paper-and-pencil administration modes. A sample of employees in one large organization in Serbia (N = 1923), answered either Intranet (N = 425) or paper-based job satisfaction survey (N = 1498). A 50-item version of a Job Satisfaction Scale was highly reliable for both data collection techniques. There was a significant method effect on all the checked indicators: demographic characteristics of Intranet and paper sub-samples based (gender, age, length of service and educational level); proportion of missing answers (on items about job satisfaction and demographic data), satisfaction with specific items and dimensions of job satisfaction, as well as overall job satisfaction. Interaction effects of administration mode by gender, age, length of service and education were not significant. Results stress that before accepting Web-based organizational surveys as a new gold standard we need empirical evidence that Web-based data can be combined and/or compared with paper-based data.

Key words: Web-based organizational survey, Intranet survey, paper-and-pencil survey, job satisfaction survey

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INTRODUCTION

Job satisfaction (JS) has been widely accepted as central among employees' attitudes in both research and practice of industrial/organizational psychology (Kinicki, McKee-Ryan, Schriesheim & Carson, 2002; Saari & Judge, 2004). Moreover, discussing theoretical and empirical complexities of JS, Judge and Klinger (2008) equated it with subjective well-being at work. In addition, developing a so called political approach to defining quality of work life, European Commission (EU, 2005) listed JS as one of five core dimensions of quality of work (the other four being characteristics of wider and immediate working environment, employees' characteristics and match between employees' characteristics and job requirements).

Judge and Church (2000) suggested JS has been the most extensively researched topic in the entire history of industrial/organizational psychology. There is a rich body of research literature relating JS with various workplace behaviors and pointing to its importance both at the individual and organizational levels (Judge & Klinger, 2008; Judge, Thoresen, Bono & Patton, 2001; Saari & Judge, 2004). Undoubtedly, published research supports and nourishes the interest for JS research.

Growing experience in applying contemporary IT advancements in data gathering, especially in e-mail and Internet-based surveys, has significant implications for research in the organizational context (Stanton & Rogelberg, 2001; Thompson, Surface, Martin & Sanders, 2003), including JS surveys. Web-based surveys in general, and web-based organizational surveys in particular, have been noted for lower costs, larger samples, participants from more diverse and hard-to-reach populations, faster data-gathering and overall research cycles, as well as appealing interface, better interactivity and flexibility of the survey in accordance with respondents' answers (Cole, Bedeian & Field, 2006; Fenlason & Christianson DeMay, 2002; Rogelberg, Church, Waclawski & Stanton, 2007; Simsek & Veiga, 2001; Stanton & Rogelberg, 2001).

However, use of the Web in organizational surveys brings out challenges along the entire research cycle – in designing research and posting survey materials, sampling, data gathering (including data accuracy, erroneous understanding of items or wrong answering), analyzing and discussing the results, as well as addressing the confidentiality and other ethical issues (Dillman, 2007; Fenlason & Christianson DeMay, 2002; Stanton, 1998; Stanton & Rogelberg, 2001). Various problems that researchers encounter in on-line data-gathering are important as they could lead to wrong assessment, explanation and, consequently, inappropriate organizational intervention.

Paper-and-pencil and Web surveys in organizational research

A limited number of published organizational research compared Web and paper administration modes. In the domain of organizational attitude surveys Web

and paper modes have been compared in assessing organizational justice (Stanton, 1998, web vs. post, employees from a range of organizations), organizational development and change (Church, 2001, online vs. post), organizational climate (Thompson & Surface, 2007, online vs. paper handed in person) and various employee attitudes, such as cynicism in the workplace (Eaton & Struthers, 2002, e-mail vs. paper handed in envelope, participants were employees from a wide range of organizations). There is a considerable variation in applied forms of electronic (such as Web, e-mail, Internet, intranet, telephone) and paper data-gathering modes (mail-based, in person), as well as in the level of precision in reporting about the surveying procedure. Moreover, types of results that are being compared across data gathering modes vary considerably.

Analyzing the proportion of missing answers, Stanton (Stanton, 1998) found that there were less missing answers in the Web-based survey compared to the paper (mail) survey. Fenlason (Fenlason & Christianson DeMay, 2002) found a lack of differences in the proportion of missing data (operationalized as missing answers and answers 'not applicable') gathered in Web and paper surveys. Church (2001) registered on average seven times more skipped answers on the Intranet than on the paper form of organizational survey (optical scan form returned by mail).

Comparing Web and paper surveys, the authors found a lack of differences in survey response rates (Fenlason & Christianson DeMay, 2002). Meta-analyzing various studies that directly compared Web and mail surveys, Shih and Fan (2008) concluded that mail surveys had higher response rates than Web surveys. Their meta-analysis covered 39 studies from varied contexts, not only organizational surveys. In meta-analysis focused on organizational surveys, Baruch & Holtom (2008) found a different tendency – electronic data-gathering modes had similar response rates to paper-based data-gathering, but the finding was based on the comparison of single administration mode studies. Composition and representativeness of the sample are closely related to the response rate. In fact, researchers bring out the issue of response rate when they are not convinced of the representativeness of the sample (Cook, Heath & Thompson, 2000).

Analyzing research findings on the comparison of paper-and-pencil and electronic surveys based on answers/scores on items and scales, Fenlason and Christianson DeMay (2002) concluded that the results were inconsistent. In one of Fenlason's studies, there were no significant mean differences at the item level. Donovan, Drasgow and Probst (2000) found that JS ratings for Job Descriptive Index (JDI) Supervisors and Coworkers Scales were equivalent across computerized and paper-and-pencil administrations of the scale. Similarly, based on a complex research design, Thompson and Surface (2007) found that employees that decided to take part in Web-based climate survey expressed similar attitudes as those that did not take part in the survey. Church (2001) also found minimal differences in average scores and his conclusion was that there were some effects of the surveying mode, but they were inconsistent and limited.

When researchers found higher means (more favorable) in IT-mediated data-gathering, differences were lost after controlling for type of job, on the one hand and demographic data on the other (Fenlason & Christianson DeMay, 2002). Similarly, based on the analysis of 15 studies which compared Web-based and paper-based administration, Stanton and Rogelberg (2001) concluded that mean differences were a function of demographic differences between subsamples (it should be noted that some research included in meta-analysis was not organizational research of employees). Whitaker and McKinney's (2007) study confirmed that JS ratings were measurement invariant across Internet and paper administration. There were no differences for gender, but older respondents gave different ratings of JS across administration modes. Eaton and Struthers (2002) found no differences in demographic variables between Internet (e-mail) and paper sub-samples, except for gender (but that was a consequence of their paper sample design that was balanced for gender). Average scores indicated less favorable JS and other attitudes in the Internet group. It should be noted that although they surveyed employees, their research was not organization-tied as respondents were from a large number of organizations.

In one of the rare studies that compared paper-and-pencil and computer-based JS surveys on a sample of employed graduate students, higher JS was identified based on computerized survey (Rosenfeld et al, 1991). However, additional analyses showed it was so only for the respondents who were weak self-monitors.

Although the body of research findings comparing paper and Web surveys is growing, findings about the validity and generalizability of Web-based administration have been inconclusive so far. Still, there is no clear answer whether these differences really exist or not. Fenlason and Christianson DeMay (2002) consider it to be the consequence of circumstances: 1. Early studies used some form of IT enabled data-gathering, but not the Web and 2. In the more recent Web-surveys is it not possible to establish response rate in a meaningful way, Web access is not random, some parts of the population do not have access to the Web, data about the respondent are not collected when answers are being submitted.

Web-based surveying adds a "layer of complexity to the research process" (Stanton & Rogelberg, 2001: 206), that challenges validity and generalizability of research data. Even researchers whose findings imply that Web and paper-based data may be combined and compared regardless of administration mode (such as Cole et al, 2006; Fenlason & Christianson DeMay, 2002; Stenton, 1998), stress the need for new research of mixed/dual-mode organizational surveys. As Stanton and Rogelberg (2001) noted, cross-validation of results gathered by different research modalities is the best way to address generalizability of research.

Despite the importance of JS for the theory and practice of industrial/organizational psychology on the one hand, and growing application of Web-based administration in organizational research, on the other, there is little published evidence about the comparison of Web and paper JS surveys. In this study, we seek to provide some empirical evidence of whether or not there are differences in JS survey data,

based on the administration mode. We compared Intranet-based administration with more traditional paper-and-pencil administration. Paper administration is a relevant reference point as a previous gold standard. It is also a building block of present-day/future organizational research dual-administration surveys (Web and paper). In particular, this study compares Web and paper administration modes in relation to commonly reported results: the composition of sub-samples (gender, age, length of work experience, education), proportions of missing answers (both on JS items and on demographic questions) and job satisfaction scores at the level of items and dimensions (sub-scales) of Job Satisfaction Scale (Kovačević & Petrović, 2006), as well as the level of overall JS.

METHOD

Procedure and participants

This study is based on archival data collected as part of a wider organizational development project in one large organization in Serbia. Employees responded to the same questionnaire either administered on-line, through organizational Intranet (private network accessible only to employees of the organization) or by answering a paper-and-pencil version they received at work and returned to researchers by post. Participation was anonymous and voluntary for both administration modalities.

Based on Cook, Heath and Thompson's (2000) findings that more contacts with respondents, as well as personalized contacts, secured higher response rates in various electronic surveys, we asked immediate supervisors to inform, in person, all the employees about the Intranet survey. Supervisors reminded employees several times about the Intranet survey and asked them to take part. Also, they offered several options for accessing Intranet to those not using a PC in their work. IT support was available to all employees in case they encountered any problems while responding to the on-line survey.

The overall sample consisted of 1923 employees. Data were gathered from two sub-samples: 425 employees took the Intranet survey and 1498 employees answered paper-and-pencil survey (with a 75% response rate). While all the employees were informed about the Intranet survey and had the opportunity to take part, paper-and-pencil form was given to a stratified random representative sample of employees.

Instrument

Job Satisfaction Scale, JSS (Kovačević & Petrović, 2006; Petrovic, Kovacevic & Kutlesic, 2007) has been enlarged from 20 to 50 items (Čurić, Kovačević & Petrović, 2010). The items indicate various aspects of the job in the form of short

descriptive phrases. Satisfaction was rated on a five-point numerical scale with verbal descriptions (ranging from very dissatisfied to very satisfied). The 50-item scale consisted of six sub-scales that were defined based on a series of factor-analyses: 1. Pay (sample items: pay based on results, justice); 2. Manager (competence, availability); 3. Care for employees (support for employees in need, benefits); 4. Colleagues (communication, friendly atmosphere); 5. Job itself (dynamic, challenging) and 6. Working conditions and environment. There was also a one-item measure about overall job satisfaction (rated on a five-point scale).

For the 50-item version of the JSS, Cronbach's coefficient alpha was 0.968 for the paper and 0.961 for the Intranet administration.

RESULTS

Comparison of sub-samples' characteristics

First we compared the composition of the paper-and-pencil and Intranet sub-samples based on gender, age, length of work experience and education using Pearson chi-square test. A chi square test, $\chi^2(1, N = 1903) = 4.759, p = 0.029$, indicated that employees who took part in paper and Intranet surveys differ in gender structure (Table 1). More female employees took part in the Web compared to paper survey, but there was a small effect size for gender (Cramer's $V = 0.05$).

Employees that took part in paper and Intranet surveys (Table 2) also differ in age structure, $\chi^2(8, N = 1898) = 74.324, p < 0.001$. There was a small effect size (Cramer's $V = 0.18$).

Comparison of paper and Intranet sub-samples based on number of years of work experience (Table 3), showed they differed significantly, $\chi^2(5, N = 1903) = 113.185, p < 0.001$. The effect size, Cramer's $V(0.24)$ was moderate.

Table 1. Comparison of samples: Gender

Sample	Gender %	
	Male	Female
Paper	72.9	27.1
Intranet	67.5	32.5

Table 2. Comparison of samples: Age

Sample	Age range (years)								
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
Paper %	1.3	7.45	10.9	14.4	21.5	24.5	8.3	9.2	0.7
Intranet %	3.8	7.3	20.5	21.6	21.2	14.4	7.3	3.3	0.7

Table 3. Comparison of samples: Length of service

Sample	Length of service (years)					
	< 2	2 – 5	5 – 15	15 – 25	25 – 30	30 +
Paper %	0.9	7.2	22.5	34.0	25.6	9.9
Intranet %	6.1	7.8	38.6	29.9	11.5	6.1

Table 4. Comparison of samples: Education

Education	Post %	Intranet %
Elementary school	0.8	1.1
Two/three years of vocational school	5.0	2.2
Four-year high school	39.1	20.5
One-year technical college	20.9	14.1
Two-year college	8.5	19.4
University education	25.6	42.7

In addition, samples of employees who took paper compared to those that took the Web-based survey (Table 4), differed on the educational level, $\chi^2(5, N = 1836) = 142.320; p < 0.001$. The size effect was moderate (Cramer's $V = 0.28$). Employees who took part in the Intranet survey can be described as more educated and with less work experience than those who answered the paper-and-pencil survey.

Missing answers

One of the aims of this research was to compare Web and paper administration modes in relation to the proportions of missing answers on JS items and demographic questions.

First, we should stress that there were no missing answers in the Intranet sample on any of the JSS items or on the one-item general satisfaction measure. Lack of missing answers was not the consequence of survey design, as respondents were not obligated to rate every item.

The proportion of missing answers on JSS items in paper sample ranged from 0.006 (for item 'relationships with colleagues') to 0.047 (for item 'business trips abroad'). The proportion of missing answers on the item about overall job satisfaction was 0.031. Average proportion of missing answers in the paper version was 0.014 ($SD = 0.077$).

Examining proportions of missing answers on demographic questions (gender, age, work experience and education) revealed that employees who answered the Intranet version of the questionnaire did not miss answers on demographic questions, whereas a small number of those who took the paper version missed some answers (the proportion of missing answers ranged from 0.013 to 0.017). These proportions do not satisfy conditions for further statistical analysis.

Differences in job satisfaction

Applying t-test for independent samples we have compared Web and paper administration modes in relation to job satisfaction scores at the level of items and dimensions (sub-scales) of the Job Satisfaction Scale. We have also compared them on the one-item overall JS. There were 43 out of 50 items on which the two sub-samples differed. Employees from the paper sample were more satisfied than those from the Intranet sample on 38 items of JS.

There were differences in average scores on all six sub-scales of JSS (Table 5). Employees from the paper sample were more satisfied on all six dimensions of JS. There was a large effect size (Cohen's d) for satisfaction with the job itself, colleagues, work conditions and care, moderate effect size for pay and small effect size only for satisfaction with managers.

Comparison of the means on the one-item measure of overall JS also indicates that there were differences based on administration mode (independent samples t test). Employees that took the paper survey ($M = 3,83$, $SD = 0.769$) were more satisfied than those that took the Intranet survey ($M = 3.12$, $SD = 1.027$; $t [1875] = 15.632$; $p < 0.001$). There was a large effect size (Cohen's $d = 0.86$).

The results of the Univariate general linear model SPSS procedure indicated that the interaction effects of administration mode with gender, age, length of service, and education on job satisfaction (dimensions and overall satisfaction) were not significant. The model tested the interaction between administration mode and each of the demographic variables. Dimensions of job satisfaction and overall job satisfaction were dependent. Precisely, out of 28 tested interaction effects three were significant: administration mode by length of service effect on overall job satisfaction ($F = 3.091$, $p = 0.009$, $\eta_p^2 = 0.010$); and interaction effects of administration mode and gender on care dimension ($F = 4.548$, $p = 0.033$, $\eta_p^2 = 0.003$), and colleagues' dimension of job satisfaction ($F = 7.661$, $p = 0.006$, $\eta_p^2 = 0.005$). Effect sizes yielded for these interaction effects could be interpreted as small to moderate.

Table 5. Comparison of administration modes: Dimensions of job satisfaction

Dimension	Administration		t	p	Cohen's d
	Paper Mean (SD)	Intranet Mean (SD)			
Pay	3.18 (0.85)	2.89 (0.72)	6.326	0.000	0.35
Managers	3.66 (0.82)	3.47 (0.59)	4.362	0.000	0.25
Care	3.64 (0.74)	3.09 (0.71)	13.481	0.000	0.73
Colleagues	3.98 (0.75)	3.11 (0.69)	21.485	0.000	1.18
Job itself	3.70 (0.79)	2.58 (0.72)	26.276	0.000	1.45
Conditions	3.87 (0.69)	3.21 (0.76)	16.886	0.000	0.96

DISCUSSION AND CONCLUSION

The purpose of the present study was to compare mail-based paper and Web-based job satisfaction survey. The issue becomes increasingly important and it is constantly changing with IT advancements and the change of workforce (especially rising numbers of “digital natives”).

First, we would like to stress that Cronbach’s alpha coefficients found in this study confirm high reliability of the JSS regardless of the administration mode.

The findings that scores on JSS items, dimensions of JS and general JS means differed significantly across Web and paper administration modes, replicated findings about higher job satisfaction yielded in paper-mode (e.g. Eaton & Struthers, 2002). They are also in line with findings about more favourable attitudes expressed in paper-based organizational surveying in general (e.g. Eaton & Struthers, 2002; Stanton, 1998). In the present study, contrary to some published research, controlling for gender, age, length of service and education did not eliminate the significant relationship between JS (general JS and dimensions of JS) and survey administration mode (web vs. paper).

Social desirability is always an option in explaining research findings of this kind. As Whelan (2008) concluded, respondents are more prone to give socially desirable answers if they believe their privacy has been jeopardized. It is possible that employees who received an envelope with the questionnaire gave more desirable answers as they could have perceived that their anonymity had been compromised in some way. However, in this particular case, every measure had been taken to secure respondents’ anonymity and they were asked to return envelopes with questionnaires to researchers’ postal address (clearly unrelated to their organization). Still, it is possible that they had some doubts about anonymity. On the other hand, respondents who took part in the Web-administered survey could have expected that their identity could be followed based on the IP address. However, it was stated that the survey was anonymous (IP address was not registered) and employees were enabled to approach the survey from anywhere. In addition, employees who took part in the survey on the Intranet could have perceived the on-line environment as more secure (Whelan, 2008) and, thus, they expressed lower job satisfaction.

It is still possible that these findings are a specific artefact of the way the survey had been administered. Results indicate lower satisfaction of the Intranet sample on 38 items. It is possible that employees who were less satisfied used the Intranet survey to express their lower satisfaction and those more satisfied were less prone to take part in the survey (before they received the envelope with the questionnaire).

Where can we look for other possible explanations of the Intranet sample’s lower job satisfaction at item level, dimensions of JS and overall JS? It can, indeed, be a ‘true’ indicator of their lower satisfaction. It is possible that less satisfied employees took part in the Web survey because they wanted to express lower satisfaction.

One possible explanation comes from studies about answers to open-ended questions in job satisfaction and other surveys. McNeely (1990) found that employees who wrote answers in a post survey were less satisfied with their jobs than those who left no comments. In an online environment Poncheri, Lindberg, Foster Thompson and Surface (2008) found that employees who were less satisfied with the organizational climate left more negative comments which also tended to be longer. Exploring comments from an online survey, Borg and Zuell (2012) confirmed that the majority had a negative tone. Negative comments were also wordier. In relation to JS, employees who made comments were less satisfied with their job than those who left no comments. Similarly, in a training evaluation online survey, Harman (2008) found that those who were less satisfied with the training wrote more comments. We can conclude that less satisfied employees exerted more effort while taking the survey. Answering an open-ended question is more of a personal initiative, demanding more voluntary behavior like answering the web-based survey as opposed to answering paper-and-pencil post-mailed survey or closed questions which are a type of more imposed and less demanding behaviors.

In discussing the prevalence of negative comments, organizational researchers often cite Positive-Negative Asymmetry Effect (PNA, Peeters, 1971). PNA refers to the bias in processing positive and negative information. Negativity effect explains stronger impact of negative, compared to positive stimuli of the same intensity. Thus, less satisfied employees are more involved in processing job related information which makes it easier for them to take part in web-based job satisfaction surveys.

The finding on the differences in age, education and work experience of the two samples (employees from the Intranet administration were younger, more educated and with less work experience than those from the paper administration), complements Church's conclusion that younger and more educated respondents prefer to take part in Web-based surveys while older and less educated respondents prefer traditional, paper-and-pencil surveys (Church, 2001). As suggested by Thompson et al. (2003), caution and further research are still needed to help us prevent excluding certain segments of employees when gathering data through the Intranet. Differences in the composition of our Intranet and paper sub-samples and their JS could also be explored in the context of nonresponse bias. Analyzing nonresponse bias in a complex paper-and-pencil survey, Rogelberg, Luong, Sederburg and Cristol (2000) found that, compared to those that refused to respond, employees who were willing to take part in organizational surveys were more satisfied with their job in general, work and supervisors and equally satisfied with pay and promotion opportunities. Based on an on-line climate survey response/nonresponse comparison, Thompson and Surface (2007) found that there were no differences between respondents' and nonrespondents' JS. It is possible that there were more passive nonrespondents in our Intranet sample than in the paper sample.

Although the study of nonrespondents is a seemingly paradoxical task (Rogelberg et al., 2003), it is precisely one of the questions for future research – are there

differences between respondents and nonrespondents (both active and passive) in a dual-mode JS survey. Although we could not record response rate for the Web sub-sample, it would be reasonable to suppose that we had a higher response rate in the paper sub-sample. It would put our data in line with Shih and Fan's (2008) finding on higher response rates for the paper surveys.

Finding about more missing answers in the paper survey compared to the web-survey confirms the results from Stanton (1998) and Cole et al. (2006). One of the possible explanations of the lack of missing answers in the Intranet survey is the "ease of clicking". However, it could also be the consequence of respondents' expectation that they would be prevented from moving on if they missed an answer (although it was not the case in the present research, respondents could have built it based on the frequent practice in Web surveys). Our results contradict findings based on paper-and-pencil JS survey, in which employees who were less satisfied with their jobs skipped more questions (Borg, Braun, Baumgärtner, 2008).

Observed differences in missing answers on biodata items are contrary to paper survey findings of Borg et al. (2008). They showed that JS is one of the correlates of non-response ratio on demographic items (lower satisfaction, more non-response). Lack of missing answers in our Intranet sample could be the result of their belief in the privacy of research data. On the other hand, it is possible that employees in the Intranet sample took part in the survey as they wanted to express justified lower JS and did not care for their anonymity in any way.

The question whether employees who voluntarily take part in a survey posted on the organizational Intranet are representative of the employee population remains open. Research presented in this paper is among a few organizational field studies based on surveying actual employees who voluntarily participated in the study (as noted by Cole et al., 2006). Balancing numerous challenges in designing our research (such as respondents' anonymity vs. representative coverage of the employee population), we opted not to use specific incentive mechanisms for increasing the Web-based survey participation rate. Ending in such a discrepancy in Intranet and paper sample sizes, it could be qualified as a limitation of our research design. Future dual-mode research could carefully develop parallel incentive mechanisms for both administration modes and check their effects.

We believe that our findings are not limited only to job satisfaction surveys. They could be relevant for other organizational surveys, especially those where the respondents' anonymity is more important.

Our findings add to and support the need for a "guarded optimism" attitude in relation to Web-based organizational research (Stanton & Rogelberg, 2001: 200). This is especially important if there is a plan to combine or compare data based on different administration modes (such as to combine data from the intranet and the paper-and-pencil sub-samples or to evaluate organizational intervention by comparing present findings based on Web administration with past findings based on paper-and-pencil administration).

In conclusion, the current study adds to the inconsistency of research findings about comparing data gathered across Web and paper administration. As a consequence, presented findings provide support for the previous conclusions that online and paper forms of various kinds of psychological instruments cannot be combined and/or compared without empirical evidence. JS surveys (and other industrial-organizational surveys as well) cannot not be placed online without empirically demonstrating that is it methodologically correct to do so.

It is clear that Web-based industrial-organizational surveys are easily available and their potential benefits are too great to be ignored. However, there are still a limited number of studies providing grounds for their 'unrestricted' application. Sound online organizational surveys should be developed in accordance with scientific and methodological rigor and adhering to professional and ethical guidelines. Developing mechanisms for improving Web-based studies along the entire research cycle and providing empirical support for the generalizability of Web-based job satisfaction surveys are necessary for the methodological, ethical and professionally correct comparison and/or combination of data gathered across Web and paper administration modes.

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USPOREDBA INTERNETSKIH I PAPIR-OLOVKA ISPITIVANJA ZADOVOLJSTVA POSLOM

Sažetak

Usporedo sa sve većom dostupnosti i primjenom internetskih organizacijskih istraživanja, pitanje njihove valjanosti postaje sve važnije. Istraživanje je usmjereno na pitanje postoje li razlike u podacima o zadovoljstvu poslom prikupljenih pomoću

intraneta i papir-olovka upitnika. Uzorak su činili zaposlenici velike tvrtke u Srbiji (N = 1923), koji su odgovorili na upitnike pomoću intraneta (N = 425) ili papir-olovka upitnika (N = 1498). Ljestvica zadovoljstva poslom od 50 čestica pokazala se visokopouzdanom za obje metode prikupljanja podataka. Utvrđen je značajan utjecaj metode na sve označene pokazatelje: sastav intranet i papir-olovka poduzoraka na temelju spola, dobi, staža i obrazovanja; udio neodgovorenih pitanja (na česticama o zadovoljstvu poslom i demografskim podacima), zadovoljstvo s određenim facetama (česticama) i dimenzijama zadovoljstva poslom te ukupno zadovoljstvo poslom. Interakcijski pokazatelji za spol, dob, staž i razinu obrazovanja u obje skupine nisu bili značajni. Rezultati upućuju na potrebu za jasnim rezultatima o mogućnostima generalizacije takvih upitnika prije njihova postavljanja kao standarda ispitivanja.

Ključne riječi: internetski organizacijski upitnik, intranet ispitivanje, papir-olovka ispitivanje, upitnik zadovoljstva poslom

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