

Mode Of Delivery In Collecting Data. A Comparison Of Postal, Online Survey And In-Person Using UWES-17 In Malaysian 4- And 5-Star Hotels.

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Abstract: Quantitative research is a common method for most of researchers. Research on management were widely used this kind of method. A quantitative research is helpful to determine and predict the association. Somehow, in drawing the best conclusion requires a good methodology. The objective of this research is to identify the difference between three delivery modes of collecting data. Using Employee engagement scale (UWES-17) results shows that there are no differences between those three delivery modes. This research contributes to the method of collecting a data in which this study proven that there are methods of delivering questionnaire which helps researcher to gain responses in fast and efficient, especially to those require sample in a larger scale across region.

Index Terms: Quota sampling, delivery modes, postal, online survey, in-person, questionnaire, employee engagement.



1. INTRODUCTION

The importance of having a good research methodology is because it will give an impact towards the results of the research, thus leading into conclusion of the study, which finally the research will give suggestion and recommendation for future researches and the industries. Many quantitative studies have been found to find the factors, influences of the variables, but lack of study focusing on the method of delivering the questionnaire. Sampling technique is always becoming a topic to be discussed in many researches. Although the sampling techniques were following some rules however, research on explaining the procedures and delivery modes were scarce. Most research recorded that response rate are at 70 percent and higher [1]. However, the average response rate for studies that utilized data collected from individuals can be explained in threes modes of delivery whereby in-person was 52.7 percent [2], 51.3 percent response rate for mail 42.3 percent response rate using web and 59.7 percent for online survey [3]. These three different methods have shown that the results of response rate are almost similar.

2 LITERATURE REVIEW

The mode of delivery refers to how respondents complete a self-administered survey questionnaire [4]. It can be traditionally whereby using paper and pencil, in-person or it can be in electronic administered survey questionnaire. Therefore, this study adopts procedures in collecting a data via online survey, postal and in-person self-collected. Furthermore, as [1] explained that most of response rate are at 70 to 90 percent, therefore, there is need to add up 20 percent to the number of sample in order to get the respective data. Meanwhile, [3] contend that it is a combination of multiple techniques, which is most effective way to get the sampling response data therefore, current study emphasized on using three techniques of collection postal mail, embedded survey link and in person.

2.1 Postal

Using a postal mode, first letter of requesting data collection were sent via email to the human resource officer and permission was asked and granted. However, most of the hotels required collection at the hotels itself, and therefore only few returned using given envelop. Study by previous research also shown that only 17 percent of response rate was via postal survey [5]. Research suggest that a simple phone call may help to increase postal response rates [6]. However, this research does not take this initiative, as researcher desire unforced technique.

2.2 In-Person

Same procedure was performed for drop and collect in person. A series of phone called has been made to set up a date to meet with the human resource officer together with permission letter. As date was set up, researcher was met with the representative of the hotels, and time given to answer the survey was approximately one hour. Although it has some drawback which is it costly, however, this delivery method shown highest response rate, plus there is a face to face conversation that made the respondents committed to answers the survey and any clarification needed by the hoteliers can be responded on time by the researcher.

2.3 Online survey

Using electronic also requires some procedure; letter of requesting data collection were sent via email to the human resource officer and permission was asked and granted thus, obtained the contact details of the respondents that were allowed to participate in the study. This mode of delivery was used to most of the selected state particularly in Pahang, Sabah, Sarawak and Labuan. The reason of not using traditional paper and pencil self-administered questionnaire because it is difficult to distribute across geographically disperse respondents [4] and for that, electric modes of delivery was used to maximize both the speed and scalability of data collection, and reduce its costs [4], [7]. Furthermore, the response rate via electronic is continually increases [3]. This study also took initiative using social media such as

LinkedIn to get into personal contact and requesting for involvement in this survey.

3 RESEARCH METHODOLOGY

UWES-17 was used in this study because the instrument is already stable, and the Cronbach alpha is more than 0.75. Sample size larger than 30 and less than 500 are appropriate in most research [8]. Meanwhile, current study used self-administered survey questionnaires, because it is better for achieving a wide geographic coverage [4], well in this case to covers Malaysia. Current research adopts a non-probability sampling, which is quota sampling. Quota sampling is the second type of purposive sampling where data is most readily and convenient available for the study, which hoteliers who are available can provide information. Quota sampling was appropriate in this study because of the heterogeneity of workplace in hotel sector, the changing of demographic profiles due to high turnover rate, hence quota sampling is the most expected to be used in the changing environment [8]. Furthermore, due to unidentified population, non-probability sampling was suited for this study. As this study used quota sampling, therefore, each hotel rating has pre-determined number of sample (quota) that should be answers by the respondents. Pre-determined number for each mode is 100.

4 RESULTS AND FINDINGS

Collection of the samples, across the three modes is not equivalent. Therefore, this research took initiative to take a minimum and similar number across the modes. 30 sample for each mode was used to test the reliability and to test is there any difference between three modes. Table 1 indicates the same 180 samples size used in this research.

Table 1: Sampling distribution for reliability analysis

Hotel Rating	Sample size		
	In-Person, self-collected	Traditional Paper and Pencil	Online survey
4-Star	30	30	30
5-Star	30	30	30
Total	60	60	60

Table 2: Reliability Analysis

Reliability Statistics			
MODES	HOTEL RATING	Cronbach's Alpha	N of Items
INPERSON	4-STAR	.805	17
	5-STAR	.873	17
ONLINE SURVEY	4-STAR	.899	17
	5-STAR	.828	17
POSTAL	4-STAR	.873	17
	5-STAR	.927	17

Table 2 explain the reliability analysis, it shows for every

method of delivery, the reliability analysis is above 0.75. This indicate that these three different modes do not compromise the reliability result. This finding also postulates that for a researcher to have a better speed in collection method, three difference mode can be applied in the research. However, the reliability analysis does not indicate the percentage of the response rate. but, to make sure that there is no difference between late and early response, t-test analysis was done to indicate the results.

Table 3: Mean Difference

Group Statistics						
MODES	HOTEL RATING	EARLYLATE	N	Mean	Std. Deviation	Std. Error Mean
INPERSON	4 STAR	EARLY	30	3.4562	.55620	.0562
		LATE	30	3.3773	.31068	.0577
	5 STAR	EARLY	30	3.4489	.63972	.0847
		LATE	30	3.9804	.60065	.2452
ONLINE SURVEY	4 STAR	EARLY	30	3.5978	.61063	.0551
		LATE	30	3.6471	.69199	.1223
	5 STAR	EARLY	30	3.8036	.50562	.0627
		LATE	30	3.7922	.59195	.1528
POSTAL	4 STAR	EARLY	30	3.1841	.44386	.0926
		LATE	30	3.8137	.60952	.2488
	5 STAR	EARLY	30	3.2868	.94664	.3347
		LATE	30	3.4000	1.02680	.4592

Table 3 shows mean differences between 4- and 5- star hotel according to delivery modes, result shows that there is no mean difference between the modes and the hotel rating on the engagement survey. And further analysis of comparing mean was proceed with independent sample t-test, result indicate in table 4.

Table 4: Analysis of late and early response.

		t-test for Equality of Means							
MODES	HOTEL RATING	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
							Lower	Upper	
INPERSON	4 STAR	Equal variances assumed	.730	125	.467	.079	10814	-13512	.29292
		Equal variances not assumed	.980	84.39	.330	.079	08053	-.08123	.23903
	5 STAR	Equal variances assumed	-1.945	61	.056	-.53	27323	-1.07784	.01489
		Equal variances not assumed	-2.049	6.257	.084	-.53	25944	-1.16003	.09708
ONLINE SURVEY	4 STAR	Equal variances assumed	-.395	153	.693	-.05	12462	-.29545	.19693
		Equal variances not assumed	-.367	44.37	.715	-.05	13415	-.31955	.22103
	5 STAR	Equal variances assumed	.077	78	.939	.011	14957	-.28631	.30924
		Equal variances not assumed	.069	18.99	.945	.011	16521	-.33433	.35725
POSTAL	4 STAR	Equal variances assumed	-2.868	27	.008	-.63	21953	-1.08001	-.17915
		Equal variances not assumed	-2.371	6.451	.053	-.63	26549	-1.26836	.00919
	5 STAR	Equal variances assumed	-.203	11	.843	-.11	55672	-1.33857	1.1121
		Equal variances not assumed	-.199	8.076	.847	-.11	56823	-1.42142	1.1949

Significant P<0.05

Table 4 explain the analysis of comparing means. T-test was performed to compare mean between two group which is early and late responses. Results indicate most of early and late response shows that there is no significance difference between the mean score. Even though the results of 4-star

hotel in modes of postal shows a difference ($p < 0.05$) however, the reliability analysis for each mode show value Cronbach alpha more than 0.75. The finding of this study concludes that the three delivery modes is acceptable for quantitative research since there is no difference between those three modes.

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5 CONCLUSIONS

The current research suggests that using three modes of delivering the questionnaire helps researcher to be more cost effective, despite of having good responses in shorter time. Furthermore, this research proves that there is no difference in between these three modes of delivery, which future study can use these methods in a larger scale. This research helps in contributed to the field of methodology in term of delivery modes. The limitation of this study is that, the current study the sample size was only 30, for each mode and it measures the reliability. Thus, future research should expand the population sampling. Other limitations of this research are, current research has a limited time to achieve 100 returned samples for each mode. Instead, this research measuring the differences reliability of three modes by taking a minimum number of sampling for each mode which is 30. This research does not measure and recorded any differences in response times across the three modes. Researcher simply took a minimal number to make it similar number across the delivery modes. Therefore, future research should measure the difference in response time across the modes.

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