

News Media in Lebanon: Quantifying the Confidence Using Parametric and Non-parametric Testing

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DOI: [10.36348/sjbms.2020.v05i11.001](https://doi.org/10.36348/sjbms.2020.v05i11.001)

| Received: 23.10.2020 | Accepted: 07.11.2020 | Published: 11.11.2020

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Abstract

Providing a clear statistical analysis of news media confidence levels in a nation adds value to the integrity to the reported news as well as a basis for comparison among sources and the outcome may influence on the population's approach and attitude towards the current happenings. Lebanon, a Middle Eastern nation, is under continuous scrutiny by other nations due to its continuous and recurring conflicts being political, social or armed conflicts related events which may influence its surrounding geopolitical environment. Although the United States of America, in particular, has been a leading country in what relates to news media and press accuracy and fairness studies, countries like Lebanon lack such assessments and reports. This study, exploratory in nature, using both parametric and nonparametric statistical testing assessed the news media in Lebanon by relying on a previously run poll questionnaire that was administered on nine time intervals along a time frame of four years. Its purpose was to assess and quantify the Lebanese news media and press accuracy and fairness. One important implication of the research was that it showed how parametric and non-parametric tests converge to offer a common assessment of the topic in question. This paper followed a streamlined research process capitalizing on a first hand treatise of the descriptive outcomes of 4850 questionnaires. Moreover, the paper presented reliability, validity and dependence analysis specific to the existing sample data. Results obtained match their reported counterparts mainly in the USA, where the percentage of negative news media assessment in Lebanon is estimated to be 64% which matches the 63% reported in the USA. Findings of this work add new insights to the academic community, academicians and researchers, policy makers in the private as well as the public news media institutions.

Keywords: Confidence, exploratory research, Lebanon, media assessment, news, nonparametric research, parametric research, poll.

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INTRODUCTION

Little is known at the most basic levels about news media assessment in countries like Lebanon. While, in the United States of America, organizations like Gallup and Pew continue to issue periodical reports about press accuracy, fairness in dealing, confidence in news, bias in reporting, and many more issues. Meanwhile, countries like Lebanon where the news media play a crucial role in public indoctrination and mobilization, lack news media studies albeit a study by Hejase and Hejase [1], that are able to provide a realistic unbiased assessment of the news media.

This paper seeks to assess and rate the different news media with Lebanon being the location of the study using parametric and non-parametric testing. Thus, this research explores the Lebanese public opinions towards the major issues of news media in order to provide estimated guidelines that may be assured or refined by further studies.

Therefore, the present study aims at highlighting the accuracy of the news, their bias and trust by means of a survey poll that has been administered to a large sample of 4850 diverse Lebanese respondents over more than four years.

LITERATURE REVIEW

Hejase and Hejase [1], assert that the issue of trust in news media has been always a major concern for both governments and societies. In fact, many people across many nations have expressed a wide diversity of opinions about news reporting, its fairness, accuracy, deepness of coverage and biasing. Polled citizens from the United States of America show that 63% said news articles were inaccurate and only 29% said the media generally – gets the facts right – the worst marks Pew has recorded – compared with 53% and 39% in 2007 [2, 3, 4]. The American Press Institute [5] reported the latest outcomes of the Media Insight Project 2018, asserting that “If we look at trust in the most general way, just 44% of adults say their trust in the news has decreased in the last year (2017), whereby a fully 19% say it has decreased a lot, and 25% say a little. Almost as many, 4 in 10, say their level of trust has neither increased nor decreased. Both of these numbers are more than double the proportion of adults (17%) who say their trust has increased in the last year” (Para 1). The aforementioned facts continue to fit the general trend reported by the Pew Research Center since 2009 “The public’s assessment of the accuracy of news stories is now at its lowest level in more than two decades of Pew research surveys, and Americans’ views of media bias and independence now match previous lows” [3].

On January 26, 2010; Public Policy Polling wrote: “A generation ago you would have expected Americans to place their trust in the most neutral and unbiased conveyors of news. Dean Debnam, president of Public Policy Polling, said in a press release: “But the media landscape has really changed and now they’re turning more toward the outlets that tell them what they want to hear” [6].

The aforementioned pessimistic view of the American public towards news media was slightly reduced in 2011 [7, 8]. The Gallup polls conducted on June 2011 and July 2012 indicated that America’s confidence in newspapers and television news has grown from 24% among men, and from 25% to 27% among women comparing 2010 to 2011 figures but went down again in 2012 to 16% among men and 26% among women. The results for the Gallup poll were based on a random sample of 1,020 adults, aged 18 and older, living in all 50 US states and the District of Columbia [9, 9]. However, recent years has shown that the past skepticism continues. According to Swift [10], the news media is among the least-trusted institutions in the nation, with only 41% of Americans reporting a great deal or fair amount of trust in it (Figure 1).

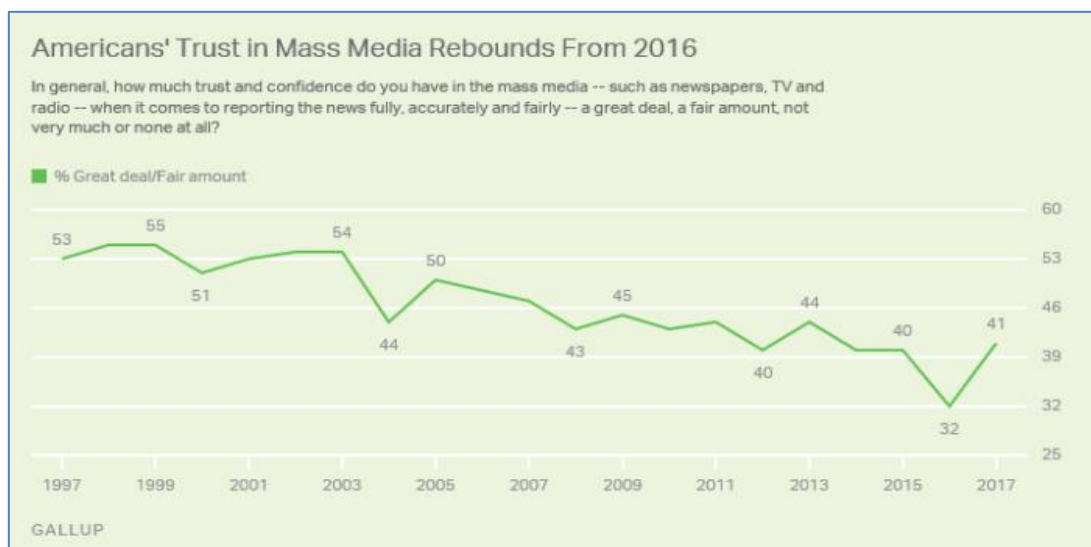


Fig-1: American’s trust in Mass Media rebounds from 2016

Source: Swift, 2017.

Goldsmith [11], contends that the Thomson Reuters Foundation in its latest ‘Digital News Report’ from the Reuters Institute for the Study of Journalism “found high skepticism about news and comment, with 33 percent of more than 70,000 consumers polled in 36 countries saying they can’t rely on the news to be true” (Para 2). Moreover, Lev [12] asserts that, “many people have grave misgivings about both government and the news media. According to recent polling data from Gallup, public confidence in Congress,

television news, and newspapers all dropped by 10 percentage points between 2006 and 2016, with confidence in newspapers reaching an historic low last year” (Para 5).

However, according to the latest findings reported by the American Press Institute [5], “reported overall numbers can also be misleading in some ways. In a fragmented media landscape, the notion of a mass media that everyone consumes together — as in the era

of the three nightly newscasts nationally or a singular newspaper in every city — no longer captures the reality of how news is consumed” (Para 2). To avoid the aforementioned problem, when people were asked about their preferred news source, a quite different picture is observed. “Indeed, in terms of Americans’ level of trust in their preferred news source, 32% say it has increased rather than decreased (13%) in the last year and 54% of the adults claim that their level of trust in their favorite news source has stayed the same” (ibid).

The debates over trust in media, misinformation and control over information rage, whereby a new Knight-Gallup survey of more than 19,000 U.S. adults shows “that Americans believe that the media have an important role to play in our democracy—yet they don’t see that role being fulfilled” (Medium.com, Para 1). Moreover, according to the Knight Foundation [14], “ results of the 2017 Gallup/Knight Foundation Survey on Trust, Media and Democracy show that most Americans believe it is now harder to be well-informed and to determine which news is accurate. They increasingly perceive the media as biased and struggle to identify objective news sources” (Para 4).

Surprisingly most of the reports and statistics published or posted are for American media assessments. However, according to a survey conducted in 2015 by the European Commission, only 19 percent of European respondents had high trust in the media. A similar questionnaire found that the country with the most trust in the news was Finland. 62 percent of respondents stated they trusted news organizations and journalists. In terms of gender distribution, women considered news more credible than men did [13, 15]. Further, a survey on trust in the media in the EU 28 countries in 2017, showed that based on trust in such media as television, radio, written press, the internet and social networks, 41 percent of Europeans tended to have medium trust in the media, whereas 38 percent of the EU citizens had low or no trust in the media at all [16]. More recently, Watson [17] reports that a new study examining perspectives on the news media from 38 countries revealed that “the levels of trust differed notably around the world, although on the most part trust in European media was highest with Finland 56% though less than years before. Western Europeans in particular had greater trust in the news media than citizens from other parts of the world, with the exception of France where only 24 percent of respondents said that they trusted news most of the time, therefore, placed among the lowest in the world when it came to how much consumers trusted the news media, alongside South Korea, Hungary and Greece.” (Para 1-2).

Moreover, few other studies were reported for other parts of the world like Lebanon. On June 2004, The Institute for professional Journalists organized a

conference on Media Ethics and Journalism in the Arab world [18]. During the conference opening ceremony, Ms. Kristen Maas, Director of the Middle East office of the Heinrich Böll Foundation highlighted that responsible reporting is tied to the protection of freedoms and rights of journalists, thus making the act of news accuracy very critical under the political challenges, the weak culture of democracy, and the domination of news media under the control of politicians with big financial resources. On 2013, Hejase and Hejase’s research findings showed that “the negative public opinion on news and media has been following an increasing trend for the past four years. In Spring 2012, the negative assessment reached a record of 64%” (p. 143). Furthermore, the researchers found that “the positive assessment reached a record of 18.1% indicating the low confidence that the Lebanese population holds for news and media, indicating the low trust and poor performance of the news media as assessed by the Lebanese public” (p. 145). Currently, Dennis, Martin, Wood and Saeed [19] posit that “two-thirds of Arab nationals overall say they trust mass media such as newspapers, TV, and radio to report news fully, fairly, and accurately, but there is variation by country. Ratings of media trust are very high in the UAE and Saudi Arabia and are lower—but still over half—in Tunisia (88% UAE, 78% KSA, 64% Jordan, 64% Lebanon, 64% Qatar, and 56% Tunisia). In comparison, a 2016 Gallup poll revealed that just 32% of Americans trust the mass media [10]” (p. 87). Furthermore, the 7th annual media use survey [20] “conducted face-to-face (phone in Qatar) among 7,303 respondents across seven countries: Egypt, Jordan, Lebanon, Qatar, Saudi Arabia, Tunisia, and United Arab Emirates shows that “Trust” in national news media – i.e., newspapers, TV and radio – fell in several countries. Qatar (74% in 2017, down to 62% in 2019), and Tunisia (56% to 44%). In contrast, trust levels in the UAE remained very high (94% in 2017 and 92% in 2019). Overall, 61% of nationals say they trust media in their own country, 48% in media from other Arab nations, and 49% in outlets from Western countries” (Para 4, 6).

As noted in the aforementioned literature review, the trends in rating media accuracy have been declining without being able to regain the high levels it possessed a couple of decades ago. This decreasing trend has been dragging both superpower countries like the USA and marginal third world countries like Lebanon. It is very clear that no matter what world we are dealing with, the public assessment of the trust in news media forms a critical issue under the prevailing political and social challenges.

RESEARCH METHODOLOGY

This research is exploratory and uses the results of the poll questionnaire created by Hejase and Hejase [1] and distributed to a convenient sample of respondents belonging to all classes of the Lebanese

community. The questionnaire is a fast poll consisting of six opinions and values questions using five-point Likert scale followed by three demographic questions. The main criterion for selection was their willingness to respond to the poll.

As mentioned earlier, data used in this paper is the same data reported in Hejase and Hejase [1] spanning four years 2009 - 2012. The total sample consisted of 4850 respondents. Table 1 shows respondents distribution during the four years.

Table -1: Distribution of Research Respondents

Term	Abbreviation	Number of Respondents
Spring 2009	SP 2009	1005
Fall 2009	FA 2009	585
Spring 2010	SP 2010	392
Summer 2010	SU 2010	355
Fall 2010	FA 2010	782
Spring 2011	SP 2011	490
Summer 2011	SU 2011	243
Fall 2011	FA 2011	465
Spring 2012	SP 2012	533
Total		4850

Purpose and Objectives of the Research

This research aims at assessing a set of questions via parametric and non-parametric methodologies attached to a selected sample of respondents’ opinions and values on media trust and assessment. The statistical analysis is related to two main objectives, whereby

The first objective assesses opinions on six issues as follows:

- a. What media leads us to think about?
- b. What is the extent of media converge?

- c. What is the level of objectivity in media coverage?
- d. Accuracy and fairness of news reporting.
- e. Purpose of news media as seen from media owner’s view.
- f. Holiness of the news media profession.

The second objective goes beyond descriptive research to examine relationships between news media and the respondents’ demographic profiles. Six sets of hypotheses depicted in Exhibit 1 are to be tested [1].

Exhibit 1: Research Hypotheses

The first set of hypothesis examines the dependence between age and the fact that media news tell us what to think:
H1_a: Age of respondent and his/her opinion on media news ‘after reporting thoughts’ are independent, i.e. respondent’s age and the media telling the respondent what to think are independent.
The second hypothesis (H1_b) assesses if the level of education and the post news reporting thoughts are dependent, specifically:
H1_b: The educational level of respondent and post news reporting thoughts are independent, i.e. the respondent’s educational level and the media telling the respondent the course of what to think of later are independent.
With the third hypothesis (H1_c), the monthly income is investigated to verify if the media telling us what to think of is dependent on our financial status.
H1_c: The respondent’s monthly income and his belief that media tells what to think of are independent, i.e. monthly income of respondent does not influence the respondent post news media thoughts.
The next set of hypotheses includes three hypotheses formulated to examine the dependency between the “superficiality in news selection” versus age, education and monthly income. So,
H2_a: The respondents’ assessment of “major media selection of news” and their ages are independent.
H2_b: The respondents’ assessment of “major media selection of news” and their highest level of education are independent.
H2_c: The respondents’ assessment of “major media selection of news” and their monthly incomes are independent.
A third set of hypotheses intend to investigate the relationship between age, education, and monthly income versus the “feeling that news media are subjective”; these are:
H3_a: The respondent’s age and the feeling that news media are subjective are independent.
H3_b: The respondent’s highest level of education and the feeling that news media are subjective are independent.
H3_c: The respondent’s monthly income and the felling that news media are subjective are independent.
The fourth set of hypotheses, examines another aspect of media news trust, mainly the relationship of news reporting accuracy and fairness as related to age, educational level and monthly income.
H4_a: The respondent’s age and the assessment of news reporting accuracy and fairness are independent.
H4_b: The respondent’s highest level of education and the assessment of news reporting accuracy and fairness are independent.
H4_c: The respondent’s monthly income and the assessment of news reporting accuracy and fairness are independent.
The fifth set of hypotheses examines the relationship between age, educational level, and monthly income versus the

respondents' assessments of the influence of the news media owner on news reporting.
 H5_a: The respondent's age and the assessment of media owner influence on news reporting are independent.
 H5_b: The respondent's highest level of education and the assessment of media owner influence on news reporting are independent.
 H5_c: The respondent's monthly income and the assessment of media owner influence on news reporting are independent.
 The sixth set of hypotheses examines the individual relationship between age, educational level, and monthly income versus the assessment of holiness of the news reporting profession. Thus, the last set is:
 H6_a: The respondent's age and the assessment of the holiness of the news reporting profession are independent.
 H6_b: The respondent's highest level of education and the assessment of the holiness of the news reporting profession are independent.
 H6_c: The respondent's monthly income and the assessment of the holiness of the news reporting profession are independent.

Beside the aforementioned objectives, the paper will compare the results obtained to those reported in the literature mainly by Gallup and Pew in the USA.

RESULTS

Sample Demographics

Respondents mainly belong to a highly educated group as both the median and the mode indicated the highest educational degree as "BS University Degree". The respondents' age groups were mainly concentrated in the two age groups 19 to 25 years, and 26 to 39 years (as detected in the mode and median). These age categories indicate that the majority of respondents belong to an adult group. Furthermore, the respondents' monthly income had their median and mode in the category 1 Million L.L. to 2 Million L.L. which indicates that the majority of the respondents throughout the research belong to a social middle class when compared to the Lebanese social classes.

Descriptive Analysis of Poll Items

Jamieson's [21] contends that the responses in Likert scales cannot have equal intervals between the pairs of adjacent responses and stated clearly that Likert scales fall within the ordinal level of measurement. In response to Jamieson's article, Pell [22] asserted that it is acceptable in many cases to consider Likert scales'

responses as interval levels of measurement, in particular when the data is of appropriate size and shape. This same argument is supported by Burns and Burns [23] who agree that many attitude investigators do consider Likert scales to be interval levels of measurements especially when their sample is large and randomly selected. On this basis the Likert scale (in the current paper) was treated as an interval scale thus allowing the calculations of means and standard deviations.

The poll consists of mainly six 5-levels Likert scale items related to the respondents' opinions as indicated previously in the research objectives section and were coded: 1 for Highly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree, and 5 for Highly Agree. Moreover, to draw clear decision lines in the responses, the researchers created two new categories by grouping the agreement responses categorized as "Highly Agree and Agree" together and similarly with the disagreement responses categorized as "Highly Disagree and Disagree". The results for agreement, neutral and disagreement are reported in Tables 3, 4 and 5 depicted in the paper by Hejase and Hejase [1]. Next, summarizing the aforementioned data was carried out to expose the overall probability distributions of the six poll questions reported in Table 2 herein.

Table-2: Overall probability distributions for the poll questions

Item	Statement	Average	Average	Average
		Percentage of All Terms	Percentage of All Terms	Percentage of All Terms
		Agreement	Neutral	Disagreement
Q1	Media tells us what to think about	53.3	19.4	27.3
Q2	Major media are superficial in selection of news	55.2	20.3	24.5
Q3	Major media are subjective in selection of news	63.8	17.1	19.1
Q4	News reporting is inaccurate and unfair	50.1	25.8	24.1
Q5	Purpose of media to tell it as media owners wants	63.7	14.2	22.1
Q6	News no longer a holy profession	63.4	20.7	15.9
	Average Question Percentage	58.3	19.6	22.2
	Maximum Question Percentage	63.8	25.8	27.3
	Minimum Question Percentage	50.1	14.2	15.9
	% Std. Deviation Across Questions	6.12	3.89	4.10

Table 2 shows that on the average 58.3% of the 4850 respondents agree that the Lebanese media is superficial, biased, unfair, inaccurate, leading, and even contribute against the welfare of the profession.

Another 19.6% of the respondents expressed neutrality in their opinions which according to the authors' experiences matches part of the Lebanese population attitude when confronted with challenging statements,

while 22.2% of the sample population disagreed with the first group.

TESTS FOR THE RESEARCH HYPOTHESES

Parametric & Non-parametric testing

Table 3 presents the summary of the Chi-Square tests performed in order to evaluate acceptance or rejection of each of the 18 hypotheses presented in the objectives section. The Chi-Square tests were performed on the whole set of data collected from the 4850 respondents. The Chi-Square cross tabulation test is used to examine if any statistically significant relationship exists between two variables. For purposes of Chi-Square analysis, only the valid cases were considered, i.e. for each crosstab the missing entries

corresponding to no answers were excluded. Table 3 demonstrates clearly that all the crosstabs are statistically significant at 5% level of significance, making a clear dependency between the age, educational degree, and income versus each of the statements corresponding to questions 1 through 6. Therefore, all the Null Hypotheses are rejected confirming that the respondents' age, education level, and income are factors that influence the respondents' opinion as related to the poll statements. In this case and as observed earlier in the demographic characterization of the sample, respondents are mature, educated and with average financial status facts that lead us to believe that their opinions are valid and reflect the general population's states-of-mind.

Table-3: Summary of the Chi—Square Crosstab Results

Question	Crosstab	χ^2 and p	Dependency	Decision
Q1: The media tells us what to think about.	H1_a: Age * Q1	$\chi^2 = 95.185$ P = 0.000	Answer to Q1 depends on respondent's age.	Reject Null Hypothesis
	H1_b: Education * Q1	$\chi^2 = 40.044$ P = 0.005	Answer to Q1 depends on respondent's educational degree.	Reject Null Hypothesis
	H1_c: Income * Q1	$\chi^2 = 48.136$ P = 0.000	Answer to Q1 depends on respondent's Income	Reject Null Hypothesis
Q2: Major media are superficial in their selection of news.	H2_a: Age * Q2	$\chi^2 = 43.494$ P = 0.000	Answer to Q2 depends on respondent's age.	Reject Null Hypothesis
	H2_b: Education * Q2	$\chi^2 = 43.887$ P = 0.002	Answer to Q2 depends on respondent's educational degree.	Reject Null Hypothesis
	H2_c: Income * Q2	$\chi^2 = 31.756$ P = 0.011	Answer to Q2 depends on respondent's Income.	Reject Null Hypothesis
Q3: Major media are subjective in their selection of news.	H3_a: Age * Q3	$\chi^2 = 39.097$ P = 0.001	Answer to Q3 depends on respondent's age.	Reject Null Hypothesis
	H3_b: Education * Q3	$\chi^2 = 77.623$ P = 0.000	Answer to Q3 depends on respondent's educational degree.	Reject Null Hypothesis
	H3_c: Income * Q3	$\chi^2 = 62.194$ P = 0.000	Answer to Q3 depends on respondent's Income	Reject Null Hypothesis
Q4: News reporting is inaccurate and unfair.	H4_a: Age * Q4	$\chi^2 = 63.254$ P = 0.000	Answer to Q4 depends on respondent's age.	Reject Null Hypothesis
	H4_b: Education * Q4	$\chi^2 = 34.424$ P = 0.023	Answer to Q4 depends on respondent's educational degree.	Reject Null Hypothesis
	H4_c: Income * Q4	$\chi^2 = 32.672$ P = 0.008	Answer to Q4 depends on respondent's Income.	Reject Null Hypothesis
Q5: Purpose of media is not to tell it like it is but as owner wants it to be.	H5_a: Age * Q5	$\chi^2 = 40.193$ P = 0.001	Answer to Q5 depends on respondent's age.	Reject Null Hypothesis
	H5_b: Education * Q5	$\chi^2 = 89.274$ P = 0.000	Answer to Q5 depends on respondent's educational degree.	Reject Null Hypothesis
	H5_c: Income * Q5	$\chi^2 = 56.266$ P = 0.000	Answer to Q5 depends on respondent's Income.	Reject Null Hypothesis
Q6: News no longer a holy profession ... Hell with public service.	H6_a: Age * Q6	$\chi^2 = 51.533$ P = 0.000	Answer to Q6 depends on respondent's age.	Reject Null Hypothesis
	H6_b: Education * Q6	$\chi^2 = 44.431$ P = 0.001	Answer to Q6 depends on respondent's educational degree.	Reject Null Hypothesis
	H6_c: Income * Q6	$\chi^2 = 51.091$ P = 0.000	Answer to Q6 depends on respondent's Income.	Reject Null Hypothesis

Reliability and Validity Analysis

Two major concepts that researchers ask for in any exploratory or causal research are research reliability and validity. Reliability is the degree of consistency of the respondents’ data, in other words, is the assessment of the ability to repeat the same measurements. According to Hair et al. [24], a diagnostic measure of reliability is the reliability coefficient which assesses the consistency of the entire scale with Cronbach’s alpha being the most widely used measure. “The generally agreed upon lower limit for Cronbach’s alpha is 0.70, although it may decrease to 0.6 in exploratory research” [23, 25].

Validity enables researchers to see how well the theory fits the data. Convergent validity is when the items that are indicators of a specific construct (like the poll in this research) share a high proportion of variance in common. To estimate convergent validity, factor analysis is suggested and the size of the factor loadings can be considered. In the case of a high convergent validity, high loadings on a factor would indicate that they converge on a common point. At a minimum, all factor loadings should be statistically significant, where a good rule of thumb is that the standardized loading estimates should be 0.5 or higher [24].

The first step in a reliability and validity analysis is to find the correlation matrix between the pairs of items in the questionnaire. This matrix is presented in Table 4. Notice that we have used the Spearman’s coefficient of correlation which is more suitable for our kind of ordinal data in contrast to the Pearson’s coefficient that is more suitable for interval or ratio measurements.

The six by six correlation matrix shows that all the items pertaining to the main six questions of the poll are positively inter-correlated, that is exactly what is needed. The fact that items are positively related is consistent with the idea that they measure the same construct [26].

The existence of correlations among the variables that correspond to the poll’s items means that the variables can be represented by a combination of indices that describe the variation in the data. While, if the variables of the poll’s items were uncorrelated, then no convergence can occur into a set of indices [27]. Table 4 indicates that there are significant positive correlations pair-wise among all the items of the poll where all significant p’s show statistically significant correlations at 5% level of significance. Therefore, the items in question measure the same construct.

Table-4: The Nonparametric Spearman’s Correlation Matrix for the Six Items

		Correlations					
		Media tells us what to think about	Major media are superficial in selection of news	Major media are subjective in selection of news	News reporting is inaccurate and unfair	Purpose of media to tell it as media owner wants	News no longer a holy profession
Spearman's rho	Media tells us what to think about	1.000	.210**	.187**	.121**	.155**	.128**
			.000	.000	.000	.000	.000
			4847	4837	4832	4836	4841
Major media are superficial in selection of news		.210**	1.000	.234**	.288**	.175**	.244**
				.000	.000	.000	.000
			4837	4840	4826	4829	4834
Major media are subjective in selection of news		.187**	.234**	1.000	.248**	.190**	.182**
					.000	.000	.000
			4832	4826	4835	4824	4829
News reporting is inaccurate and unfair		.121**	.288**	.248**	1.000	.313**	.369**
						.000	.000
			4836	4829	4824	4839	4834
Purpose of media to tell it as media owner wants		.155**	.175**	.190**	.313**	1.000	.350**
							.000
			4841	4834	4829	4834	4844
News no longer a holy profession		.128**	.244**	.182**	.369**	.350**	1.000
			4832	4825	4821	4825	4830

** Correlation is significant at the 0.01 level (2-tailed).

An attempt is done to consider the items of the survey under an interval scale and, thus, the use of Pearson’s correlation. Table 5 shows the result which is very similar to the Spearman’s result due to the large size of the sample (4850). Again, the correlations though not very high are all significant at 5% level of

significance. This result matches the Spearman’s correlation which argues that the poll items measure the same construct. Consequently, for this large sample parametric and non-parametric tests generated similar results in all cases considered.

Table-5: The Parametric Pearson’s Correlation Matrix for the Six Items

		Correlations					
		Media tells us what to think about	Major media are superficial in selection of news	Major media are subjective in selection of news	News reporting is inaccurate and unfair	Purpose of media to tell it as media owner wants	News no longer a holy profession
Media tells us what to think about	Pearson Correlation	1	.206**	.160**	.113**	.148**	.128**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	4847	4837	4832	4836	4841	4832
Major media are superficial in selection of news	Pearson Correlation	.206**	1	.217**	.287**	.159**	.241**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	4837	4840	4826	4829	4834	4825
Major media are subjective in selection of news	Pearson Correlation	.160**	.217**	1	.227**	.159**	.162**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	4832	4826	4835	4824	4829	4821
News reporting is inaccurate and unfair	Pearson Correlation	.113**	.287**	.227**	1	.285**	.374**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	4836	4829	4824	4839	4834	4825
Purpose of media to tell it as media owner wants	Pearson Correlation	.148**	.159**	.159**	.285**	1	.326**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	4841	4834	4829	4834	4844	4830
News no longer a holy profession	Pearson Correlation	.128**	.241**	.162**	.374**	.326**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	4832	4825	4821	4825	4830	4835

** .Correlation is significant at the 0.01 level (2-tailed).

Many researchers like to use the Bartlett’s test of sphericity to test for the adequacy of the correlation matrix, i.e., the correlation matrix has significant correlations among at least some of the variables. Bartlett’s test of sphericity tests the hypothesis that the correlation matrix is an identity matrix. Ho [28] reported that “if the test value is large and the significance level is small (<0.05) the hypothesis that the variables are independent (i.e. the correlation matrix is an identity matrix) can be rejected”.

The Bartlett’s test of sphericity was used to test for the adequacy of the Pearson’s correlation matrix, the resulting Chi-Square came up to be 2716.602 with p = 0.000; such result does reject the hypothesis that the correlation matrix is an identity matrix with no correlations between the items (at 5% level of significance). This test simply enforces the earlier finding that the poll items measure the same construct.

Table 6 shows the obtained Cronbach’s alpha which according to the aforementioned rules of thumb supports the reliability of the poll with a value of 0.613. Table 6 shows that the group-item scale produced a Cronbach’s Alpha = 0.613, in addition that Cronbach’s

alpha if items deleted all fall in the range 0.535 to 0.611 matching the range 0.5 - 0.6 labeled “Moderately Acceptable” [23, 25]. This raises an initial concern since it leads to indicate a somewhat mediocre strength of association of the questions/statements and proves that the selection of the questions is not suitable for the questionnaire purpose. However, due to this concern further investigation into the cause is performed and found that according to Taber [29], quoting Griethuijsen et al. [30] and their use of an overall Cronbach’s alpha of 0.446, the justification on continuing with their analysis using the data collected in these administrations by arguing that “slightly increasing the number of items would lead to acceptable values for Cronbach’s alpha” [30]. The aforementioned Cronbach’s alpha is still lower than this research alpha of 0.613. Therefore, while an alpha value that is greater than 0.7 is considered appropriate even though this value could be as low as 0.6 for exploratory research [25], thus, assesses the consistency of the entire measuring scale to be within the limits accepted for exploratory research. This indicates an acceptable strength of association and proves that the selection of the questions is suitable for the questionnaire purpose [31].

Table-6: Cronbach’s Alpha

Cronbach’s Alpha	Cronbach’s Alpha Based on Standardized Items				N of Items
.613	.617				6
Item-total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correction	Cronbach’s Alpha Based if Item Deleted	
Q1	17.67	12.020	.239	.611	
Q2	17.57	11.468	.364	.561	
Q3	17.36	11.767	.295	.588	
Q4	17.63	11.119	.430	.535	
Q5	17.41	10.810	.351	.567	
Q6	17.33	11.321	.410	.544	

The next step is to consider the construct validity which involves relating a theoretical concept to a specific measuring device or procedure, or as stated by Burns & Burns [23]: “Does the measuring instrument tap the concept as theorized?”

Burns & Burns [23] propose that Factor Analysis can be used to assess construct validity; however, “the Cronbach Alpha process of assessing internal reliability is in a sense demonstrating construct

validity when it shows items all loaded together as one coherent scale.” Table 7 shows that there is one principal component which according to Hair et al. [24], in the case of a high convergent validity, high loadings on a factor would indicate that they converge on a common point. At a minimum, all factor loadings should be statistically significant; where a good rule of thumb is that the standardized loading estimates should be 0.5 or higher.

Table-7: Only One component is extracted with High Loadings Proof of Construct Validity

Component Matrix ^a Extraction Method: Principal Component Analysis a. 1 component extracted	Component 1
News Reporting is inaccurate and unfair	0.695
News no longer a holy profession	0.672
Major media are superficial I selection of news	0.601
Purpose of media to tell it as media owners wants	0.601
Major media are subjective in selection of news	0.507
Media tells us what to think about	0.418

Kruskal-Wallis Groups Analysis

Hejase and Hejase [1] selected the Kruskal-Wallis test which is a non-parametric alternative to the one way between groups ANOVA and an extension of the Mann-Whitney test to situations where more than two samples are involved. It determines whether independent samples are from different populations and uses ordinal data [23, 32].

Kruskal-Wallis test was conducted to evaluate differences among the mean rank results of the nine

polls (considered for this case as if nine samples exist) on each of the questions as detailed in Table 8. Moreover, the observed p-values (Asymp. Sig.) on Table 8 show that for each question compared for the nine terms of sampling (nine samples), there is sufficient evidence to reject the null hypothesis that the rank means are all equal at 5% level of significance. Consequently, proving that there were significant differences in opinions across the nine samples.

Table-8: Rank Means per Question per term used in Kruskal-Wallis Analysis

	Q1	Q2	Q3	Q4	Q5	Q6
SP 2009	2340.0	2347.4	2330.8	2375.5	2394.3	2269.2
FA 2009	2441.1	2321.4	2205.9	2461.0	2480.6	2343.9
SP 2010	2553.0	2392.7	2438.6	2155.9	2334.9	2430.7
SU 2010	2278.8	2315.1	2451.1	2251.9	2169.0	2301.7
FA 2010	2443.0	2507.2	2420.8	2565.4	2451.3	2488.5
SP 2011	2537.7	2348.8	2295.1	2381.5	2431.6	2279.7
SU 2011	2344.4	2307.5	2246.9	2365.3	2261.8	2179.4
FA 2011	2430.3	2560.3	2723.1	2692.7	2522.5	2583.7
SP 2012	2463.8	2626.1	2701.2	2375.0	2580.8	2836.1

Table-9: Kruskal-Wallis test Output

Test Statistics ^{a, b}						
	Media tells us what to think about	Major media are superficial in selection of news	Major media are subjective in selection of news	News reporting is inaccurate and unfair	Purpose of media to tell it as media owner wants	News no longer a holy profession
Chi-Square	16.817	32.834	75.812	52.059	29.656	92.026
df	8	8	8	8	8	8
Asymp. Sig.	0.032	0.000	0.000	0.000	0.000	0.000

a. Kruskal Wallis Test
 b. Grouping Variable: Term

The appropriate second step that should follow after a significant Kruskal-Wallis test is to perform pair wise tests to compare each pair of groups using the Wilcoxon or Mann-Whitney rank-sum-test which is analogous to using pair wise t-tests in a parametric one-way ANOVA [26].

The Kruskal-Wallis test was significant for all questions ($p < 0.05$), thus post hoc pair-wise

comparisons using the Mann-Whitney test were performed and the significances are shown in Table 10. Many comparisons demonstrated a non-significant difference (highlighted squares) where $p > 0.05$ indicating that the rank mean did not change significantly with time while in others there was a significant difference (The non-highlighted squares) where $p < 0.05$ indicating that the rank means corresponding to a question are significantly different.

Table-10: Non-parametric P-values for the pair-wise Mann-Whitney tests

Terms	Q1	Q2	Q3	Q4	Q5	Q6
8 – 9	0.687	0.546	0.838	0.000	0.468	0.003
7 – 9	0.236	0.001	0.000	0.936	0.002	0.000
6 – 9	0.364	0.001	0.000	0.948	0.082	0.000
5 – 9	0.785	0.126	0.000	0.011	0.085	0.000
4 – 9	0.040	0.000	0.004	0.201	0.000	0.000
3 – 9	0.302	0.010	0.004	0.012	0.006	0.000
2 – 9	0.803	0.000	0.000	0.282	0.207	0.000
1 – 9	0.081	0.000	0.000	0.996	0.009	0.000
7 – 8	0.414	0.018	0.000	0.002	0.013	0.000
6 – 8	0.218	0.019	0.000	0.000	0.305	0.001
5 – 8	0.872	0.464	0.000	0.094	0.367	0.199
4 – 8	0.111	0.010	0.002	0.000	0.000	0.002
3 – 8	0.184	0.081	0.002	0.000	0.041	0.105
2 – 8	0.897	0.005	0.000	0.005	0.605	0.004
1 – 8	0.229	0.005	0.000	0.000	0.087	0.000
6 – 7	0.059	0.728	0.722	0.884	0.114	0.384
5 – 7	0.316	0.039	0.079	0.038	0.054	0.001
4 – 7	0.528	0.956	0.052	0.290	0.387	0.214
3 – 7	0.050	0.463	0.086	0.051	0.505	0.026
2 – 7	0.355	0.889	0.693	0.346	0.033	0.098
1 – 7	0.934	0.688	0.398	0.916	0.166	0.318
5- 6	0.226	0.043	0.105	0.018	0.806	0.007
4 – 6	0.005	0.742	0.084	0.181	0.006	0.725
3 – 6	0.865	0.646	0.128	0.013	0.297	0.105
2 – 6	0.253	0.798	0.354	0.333	0.557	0.369
1 – 6	0.008	0.997	0.611	0.943	0.620	0.984
4 – 5	0.058	0.024	0.713	0.000	0.001	0.023
3 – 5	0.191	0.181	0.840	0.000	0.161	0.500
2 – 5	0.983	0.010	0.004	0.148	0.689	0.042
1 – 5	0.110	0.012	0.159	0.003	0.373	0.000
3 – 4	0.005	0.451	0.915	0.228	0.090	0.187
2 – 4	0.076	0.932	0.004	0.019	0.001	0.710
1 – 4	0.480	0.700	0.133	0.140	0.006	0.622
2 – 3	0.211	0.467	0.009	0.001	0.096	0.349
1 – 3	0.008	0.583	0.184	0.005	0.456	0.048
1 – 2	0.159	0.722	0.081	0.216	0.217	0.276

Moreover, it is noticed that the total number of significant differences in rank means amounts to 89 as compared to 127 non-significant differences at 5% significance and 108 as compared to 108 non-

significant differences at 5% & 10%. Simple calculations can be done per question to obtain the percentages presented in Table 11a, b.

Table-11a: P-values for the pair-wise Mann-Whitney tests 5% Significance

	Q1	Q2	Q3	Q4	Q5	Q6
Number of significant differences	6	16	17	18	12	20
Number of non-significant differences	30	20	19	18	24	16
Total	36	36	36	36	36	36
% of significant differences	17%	44%	47%	50%	33%	56%
% of non-significant differences	83%	56%	53%	50%	67%	44%

Table-11b: P-values for the pair-wise Mann-Whitney tests 5% and 10% Significance

	Q1	Q2	Q3	Q4	Q5	Q6
Number of significant differences	10	17	22	20	18	21
Number of non-significant differences	26	19	14	10	18	15
Total	36	36	36	36	36	36
% of significant differences	28%	47%	61%	56%	50%	58%
% of non-significant differences	72%	53%	39%	44%	50%	42%

From Tables 11a and 11b, it can be concluded that the average percentage of significant differences for all the questions at 5% and 10% significance is around 41% and 50%, respectively leaving an average percentage of 59% and 50%, respectively for non-significant differences for all questions and all terms. Moreover, Table 11a shows that questions 2 (Major media are superficial in selection of news), 3 (Major media are subjective in selection of news), 4 (News reporting is inaccurate and unfair) and 6 (News no longer a holy profession) had more significant differences as compared to questions 1 (Media tells us what to think about) and 5 (Purpose of media to tell it as media owner wants); and from Table 11b, all questions except question 1 show more significant differences.

Chi-Square Analysis of All Respondent's Answers

For every pair of distinct question a 5 x 5 contingency table was constructed using the whole set of data after excluding missing values with the purpose of determining whether there is an association between the respondents' answers to the considered questions. Table 12 includes a full summary of all the outcomes of all the executed crosstab sets, where each square presents two numbers, the upper one is the Chi-Square calculated by the test, while the lower one is the p-value or statistical significance. Since all resulting p-values are 0.000, the null hypothesis that there is no relation between the Likert answers for each couple of questions must be rejected. Table 12 indicates that there are dependencies and associations between the answers of the respondents to the set of questions.

Table-12: Summary of the Crosstab Chi-Square Tests for Pairs of Questions

	Q6	Q5	Q4	Q3	Q2
Q1	228.730 0.000	199.122 0.000	216.645 0.000	248.403 0.000	519.495 0.000
Q2	408.973 0.000	243.226 0.000	618.641 0.000	619.437 0.000	
Q3	324.141 0.000	494.141 0.000	502.223 0.000		
Q4	935.510 0.000	748.633 0.000			
Q5	1158.709 0.000				

Parametric one-way ANOVA Test

For the sake of having a comparative analysis, the one-way ANOVA test was carried out keeping in mind the necessary assumptions [33] and consequences related to errors I and II effects.

Assumptions:

1. Error terms in the model are independent,
2. Homogeneity of variances, and
3. Identically distributed Normal variables with null means

Liu [34] asserts that, "when data are heterogeneous, normal, and unbalanced, the Welch method controls the nominal type I error the best in all the cases and gain the most power in the most cases, while ANOVA and Kruskal-Wallis are unstable: quite conservative in the cases of the large-variance group having a large sample size" (p. iii). Next, performing test of homogeneity of variances Table 13 depicts the results.

Table-13: Test of Homogeneity of Variances for questions 1 and 5

		Levene Statistic	df1	df2	Sig.
Q1	Based on Mean	1.281	8	4838	.248
	Based on Median	.793	8	4838	.608
	Based on Median and with adjusted df	.793	8	4715.750	.608
	Based on trimmed mean	1.210	8	4838	.289
Q5	Based on Mean	1.787	8	4835	.075
	Based on Median	1.121	8	4835	.345
	Based on Median and with adjusted df	1.121	8	4777.845	.345
	Based on trimmed mean	2.153	8	4835	.028

Table-14: Test of Homogeneity of Variances for questions 2, 3, 4 and 6

		Levene Statistic	df1	df2	Sig.
Q2	Based on Mean	3.881	8	4831	.000
	Based on Median	3.070	8	4831	.002
	Based on Median and with adjusted df	3.070	8	4693.150	.002
	Based on trimmed mean	3.838	8	4831	.000
Q3	Based on Mean	9.796	8	4826	.000
	Based on Median	4.403	8	4826	.000
	Based on Median and with adjusted df	4.403	8	4772.844	.000
	Based on trimmed mean	10.921	8	4826	.000
Q4	Based on Mean	3.993	8	4830	.000
	Based on Median	4.043	8	4830	.000
	Based on Median and with adjusted df	4.043	8	4586.024	.000
	Based on trimmed mean	4.143	8	4830	.000
Q6	Based on Mean	15.179	8	4826	.000
	Based on Median	5.742	8	4826	.000
	Based on Median and with adjusted df	5.742	8	4699.505	.000
	Based on trimmed mean	12.951	8	4826	.000

Results from Table 13 show that questions 1 and 5 have $p > 0.05$ implying there is no violation to the Null Hypothesis that the tested questions have equal variances (Homogeneity of variances) which leads to the fact that when ANOVA test is run, the results whenever $p < 0.05$ are valid. On the other hand, Table 14 shows that for questions 2, 3, 4 and 6 $p < 0.05$ which means there is a violation of the Null Hypothesis that

there is a homogeneity of variances and therefore when ANOVA test is run, its results at $p < 0.05$ are not valid. Therefore, the next step is to carry out robust testing using Welsh and Brown-Forsythe tests, however the Welsh test is more powerful since it is unaffected by having or not equality of variances. Table 15 depicts the ANOVA testing results while Table 16 shows the results of the robust tests.

Table-15: ANOVA tests

		Sum of Squares	df	Mean Square	F	Sig.
Q1	Between Groups	20.065	8	2.508	1.893	.057
	Within Groups	6409.982	4838	1.325		
	Total	6430.047	4846			
Q5	Between Groups	44.201	8	5.525	3.550	.000
	Within Groups	7524.093	4835	1.556		
	Total	7568.295	4843			

		Sum of Squares	df	Mean Square	F	Sig.
Q2	Between Groups	35.187	8	4.398	3.835	.000
	Within Groups	5540.588	4831	1.147		
	Total	5575.775	4839			
Q3	Between Groups	89.681	8	11.210	9.136	.000
	Within Groups	5921.437	4826	1.227		
	Total	6011.118	4834			
Q4	Between Groups	63.407	8	7.926	7.190	.000
	Within Groups	5324.267	4830	1.102		
	Total	5387.674	4838			
Q6	Between Groups	100.533	8	12.567	11.833	.000
	Within Groups	5125.020	4826	1.062		
	Total	5225.553	4834			

Table-16: Robust Tests of Equality of Means

		Statistic ^a	df1	df2	Sig.
Q1	Welch	1.931	8	1663.332	.052
	Brown-Forsythe	1.924	8	4143.763	.052
Q5	Welch	3.425	8	1655.330	.001
	Brown-Forsythe	3.519	8	3873.458	.000
a. Asymptotically F distributed.					

		Statistic ^a	df1	df2	Sig.
Q2	Welch	4.100	8	1657.684	.000
	Brown-Forsythe	3.847	8	4001.205	.000
Q3	Welch	9.809	8	1660.935	.000
	Brown-Forsythe	9.259	8	4012.641	.000
Q4	Welch	6.912	8	1655.272	.000
	Brown-Forsythe	7.151	8	3932.633	.000
Q6	Welch	12.842	8	1646.535	.000
	Brown-Forsythe	11.623	8	3685.804	.000
a. Asymptotically F distributed.					

Table 15 shows that question 1 is valid with a significance of 90% (marginal 5% error) while question 5 is valid with a 95% significance (less than 5% error). And recalling that questions 2, 3, 4, and 6 cannot use the ANOVA results because of the violation of the homogeneity of variances. According to Delacre et al. [35], “When the assumption of equal variances is violated, the F-test is either too liberal or too conservative, depending on the correlation between sample sizes and standard deviations (SDs). But the Welch-test is more powerful [greater ability to detect differences] than both the F-test and the Brown-Forsythe-test, even with heavy-tailed distributions”.

Consequently, the Welch ANOVA test is stressed. Herein Table 16 shows that there is sufficient evidence to conclude that the means of all the groups are not equal in the population with the observation that question 1 is marginally significant at 5%. Finally, based on the aforementioned results post hoc pair-wise comparisons are performed using Fisher’s LSD (Least Square Difference) for questions 1 and 5 [36] and Games-Howell test which does neither assume a Normal Distribution of the variances (Homogeneity of Variances) nor equal sample sizes [37, 36]. Results for post-hoc calculations are shown in Table 17.

Table-17: Post-hoc pair-wise comparisons using LSD and Games-Howell tests

Terms	LSD-test		Games-Howell-test			
	Q1	Q5	Q2	Q3	Q4	Q6
8 – 9	.694	.787	.972	1.000	.005	.040
7 – 9	.295	.005	.038	.001	1.000	.000
6 – 9	.445	.124	.012	.000	1.000	.000
5 – 9	.719	.165	.614	.007	.261	.000
4 – 9	.051	.000	.011	.240	.926	.000
3 – 9	.385	.014	.108	.066	.127	.000
2 – 9	.555	.517	.004	.000	.976	.000
1 – 9	.077	.031	.001	.000	1.000	.000
7 – 8	.478	.012	.482	.000	.031	.005
6 – 8	.261	.222	.421	.000	.007	.005
5 – 8	.934	.300	1.000	.002	.704	.993
4 – 8	.124	.000	.336	.118	.000	.179
3 – 8	.228	.033	.791	.027	.000	.668
2 – 8	.866	.728	.319	.000	.108	.217
1 – 8	.213	.080	.222	.000	.000	.002
6 – 7	.101	.124	1.000	.000	1.000	.999
5 – 7	.407	.058	.643	1.000	.459	.020
4 – 7	.531	.411	1.000	.801	.992	.773
3 – 7	.089	.509	1.000	.550	.414	.436
2 – 7	.549	.020	1.000	.884	.978	.540
1 – 7	.850	.156	1.000	1.000	1.000	.956
5- 6	.238	.751	.510	.660	.278	.020
4 – 6	.009	.007	1.000	.393	.949	.963
3 – 6	.884	.324	1.000	.824	.164	.698
2 – 6	.174	.349	1.000	1.000	.973	.810

1 – 6	.010	.726	1.000	.999	1.000	1.000
4 – 5	.077	.001	.468	.999	.008	.477
3 – 5	.208	.169	.921	1.000	.000	.953
2 – 5	.781	.474	.433	.146	.921	.567
1 – 5	.118	.430	.282	.861	.076	.006
3 – 4	.009	.095	.999	1.000	.875	.999
2 – 4	.145	.000	1.000	.074	.306	1.000
1 – 4	.531	.006	1.000	.580	.879	.995
2 – 3	.154	.057	1.000	.387	.005	1.000
1 – 3	.010	.426	1.000	.960	.064	.819
1 – 2	.253	.140	1.000	.882	.929	.911

Moreover, it is noticed that the total number of significant differences in rank means amounts to 56 as compared to 160 non-significant differences at 5% significance (marked in grey) and 68 as compared to

148 non-significant differences at 5% (marked in grey) and 10% (marked in yellow) significance. Simple calculations can be done per question to obtain the percentages presented in Tables 18a and 18b.

Table-18a: P-values for the pair-wise LSD / Games-Howell tests Significance 5%

	Q1	Q2	Q3	Q4	Q5	Q6
Number of significant differences	4	5	12	9	12	14
Number of non-significant differences	32	31	24	27	24	22
Total	36	36	36	36	36	36
% of significant differences	11%	14%	33%	25%	33%	39%
% of non-significant differences	89%	86%	67%	75%	67%	61%

Table-18b: P-values for the pair-wise LSD / Games-Howell tests Significance 5% & 10%

	Q1	Q2	Q3	Q4	Q5	Q6
Number of significant differences	8	5	14	11	16	14
Number of non-significant differences	32	31	22	25	20	22
Total	40	36	36	36	36	36
% of significant differences	22%	14%	39%	31%	44%	39%
% of non-significant differences	78%	86%	61%	69%	56%	61%

From Tables 18a and 18b, it can be concluded that the average percentage of significant differences for all the questions is around 26% and 32%, respectively leaving an average percentage of 74% and 68%, respectively for non-significant differences for all questions and all terms. Worth mentioning that questions 3 (Major media are subjective in selection of news), 4 (News reporting is inaccurate and unfair) and 6 (News no longer a holy profession) had more significant differences as compared to questions 1 (Media tells us what to think about), 2 (Major media are superficial in selection of news), and 5 (Purpose of media to tell it as media owner wants) at 5% significance but at 10% significance only questions 1 and 2 have less significant differences as compared to questions 3, 4, 5 and 6.

SUMMARY

On comparing results from the non-parametric tests, results depicted in Tables 11a and 11b versus the parametric results depicted in Tables 18 and 19, it can be concluded that the parametric results are more conservative since parametric methods follow strict rules from the start [41] and lead to lower values of significant differences. However, the significant differences stress the importance of questions 3 (Major media are subjective in selection of news), 4 (News

reporting is inaccurate and unfair), 5 (Purpose of media to tell it as media owner wants), and 6 (News no longer a holy profession) related to the confidence in the news as presented by the media in general. Such results satisfy the objective of this research.

CONCLUSION AND IMPLICATIONS

This research was motivated by the fact that news media assessment merits more interest and investigation. That's why the details of the statistical (parametric and non-parametric) analyses were included extensively in this research to provide interested researchers the opportunity to grasp better the roadmap presented herein.

The findings of news media assessment in Lebanon indicate among many other issues the high dissatisfaction of the public in general and in particular those who are highly educated within the middle income class. Having considered a relatively high sample (4850), with data collected over four years at nine different sampling instances, the results of the data analysis with their successful reliability and validity tests can really form a reference foundation for news media evaluation in Lebanon and elsewhere. It is worth to recognize here that the poll administered lacks the breadth of questions that a researcher looks for (leading

to lower Cronbach’s alpha of (.617); however, there is deepness in the time frame and sample size that makes this poll and its results a very attractive exploration.

Finally, to compare the findings of the current work with other reported figures, the totality of unsatisfied respondents (those who Disagree and Highly Disagree) were summed per sampling term per question and the corresponding percentage was calculated, then the average of the six percentages corresponding to the six questions was obtained and included in the graph of Figure 2.

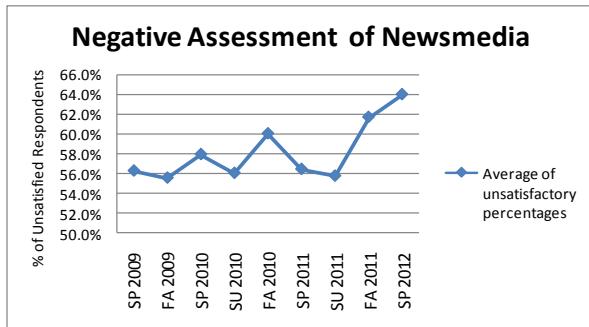


Fig-2: Percentage of Unsatisfied Respondents with News Media

The graph depicted in Figure 2 shows how the negative public opinion on news and media has been following an increasing trend for the past four years. In the spring of 2012, the negative assessment reached a record of 64% that almost matches the 63% reported in the USA during 2009 [2, 4].

Similarly, the totality of satisfied respondents (those who Agree and Highly Agree) were summed per sampling term per question and the corresponding percentage was calculated, then the average of the six percentages corresponding to the six questions was obtained and included in the graph of Figure 3.

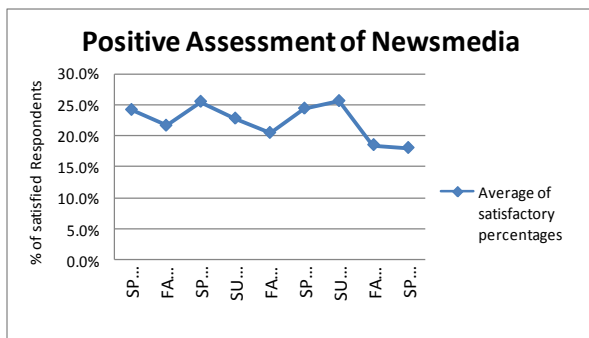


Fig-3: Percentage of Satisfied Respondents with News Media

The graph depicted in Figure 3 shows how the positive public opinion on news and media has been following a decreasing trend for the four years. In the Spring of 2012, the positive assessment reached a record of 18.1%, being the general percentage of those

who are satisfied with the news media issues, indicating the low trust and poor performance of the news media as assessed by the Lebanese public.

The purpose of this paper was to quantify the extent of confidence in new media in Lebanon using parametric and non-parametric statistical methods which indeed helped in this endeavor so that empirical data generated serve as baseline for other researchers and professionals from the news media sector as well as policy makers who are interested to monitor the people’s view points towards existing news sources as well. However, it is worth delving into the possible causes which are affecting the Lebanese populace to take such a negative stance against the news they are bombarded with daily. Moreover, it is a fact that recent statistics show a more positive view of the subject. According to the report by Northwestern University in Qatar [38], “Opinions about the quality of national news media vary widely among countries surveyed. Nationals from the Gulf States (UAE, Saudi Arabia and Qatar) tend to have a more positive opinion of their media; the majority say the news media in their country are credible. In contrast, those in Egypt, Lebanon, and Tunisia express less confidence in their national media, with fewer than half agreeing that news media in their country are credible.” For example, in this study, Lebanon has shown an improvement when dealing with the credibility in the news media of the country with 25% in 2013 to 33% in 2015, which is about double the figure of the current research. However, the populace is still concerned about the freedom of speech and news independency whereby Lebanon is classified with Egypt and Tunisia along this respect. Nationals in Egypt, Lebanon, and Tunisia express more concern about government interference in news reporting. Less than half of Nationals in these three countries feel news media can report the news independently (25%, 33%, and 46%, respectively). In fact, about one in three disagrees that news media can report independently (34%, 33%, and 31%, respectively). This fact is asserted by Sciacchitano [39], who believe that “although ostensibly free, the Lebanese media find themselves stifled by several legal, political, economic and cultural restrictions, which limit freedom of expression. This calls for an overhaul of the judiciary and electoral system, which must occur multilaterally” (p. 32). Furthermore, Sciacchitano [39] stressed that fact that “there are a handful of state-owned and private news agencies operating in Lebanon, as well as international news services. The press trade unions are, however, regarded as inefficient and are swayed by their political and sectarian loyalties” (p. 28). The aforementioned fact leads to the 50% figure of Lebanese who will consume news from foreign media organizations [38].

Recently, the American Press Institute - API (2018, Para 2), through its media insight project, commented on the reported numbers that can also be

misleading in some ways. “In a fragmented media landscape, the notion of a mass media that everyone consumes together — as in the era of the three nightly newscasts nationally (ABC, NBC and CBS) or a singular newspaper in every city — no longer captures the reality of how news is consumed. The questions about media trust inevitably are asking people to describe an attitude toward publications they do not use”. Consequently, to avoid the aforementioned problem, API asked surveyed people to name “a publication or outlet they rely on heavily”. The result is a quite different picture. Thus, in terms of Americans’ level of trust in their preferred news source, more say it has increased (32 percent) rather than decreased (13 percent) in the last year. For most adults (54 percent), their level of trust in their favorite news source has stayed the same. A similar situation is observed in a very recent Lebanese research carried out by Melki and Kozman [40] in their research about “Media Uses and Trust During Protests”, who reported when comparing public trust levels across various news platforms, “television ranked first with 88.7% of Lebanese saying they sometimes or often trust news about the protests from this news source. WhatsApp came in second place at 69.4%, followed closely by Facebook at 60.5%, and distantly by Instagram (47.3%), Twitter (45.5%), news websites (43.6%) and radio (41.2%). The least trusted news sources were newspapers and blogs, with only 27.5% and 26.8% of Lebanese respectively saying they somewhat or often trust news about the protests from these sources” (p. 14). Indeed, when specifying a preferred source of news, numbers are reported differently and are usually higher than anticipated.

Finally, according to Sciacchitano [39], “Lebanese society, much like its media, has historically been noted for its diversity and inclusiveness. Yet, despite its apparent freedoms, this media often serves the interests of a political elite rather than working for the good of the general population quoting media scholar Nabil Dajani, Media Studies Professor” (p. 6). Therefore, “without the protection of trades unions, journalists may be easily harassed and influenced by editors who are affiliated to one or another religious/political group” (p. 11). The aforementioned provide enough reason to unaffiliated Lebanese populace to not trusting the news presented to them, unless they practice strict choice of preferred news media source.

It is important to note that the empirical results of the current research will provide exploratory findings that can be used academically to add different approaches for statistical analysis while watching for the research samples as well as new insights to be validated by other researchers, Middle Eastern or others; consequently, cross-cultural comparisons could be performed. Moreover, another contribution of the current study is its stimulating effect that might lead other academic and professional media researchers to

probe and test the effectiveness of the analysis roadmap utilized in the current research.

Future research may extend the longitudinal analysis to reach the year 2019, though the recent research is focusing more on preferred media sources and their ranking as per chosen samples among Lebanese public residing all over Lebanon. Indeed similar studies may be carried out across countries for the sake of comparative analysis and better policy planning and media targeting. As for keeping the years 2019 and 2020 out of the aforementioned future endeavors, and rather carry out an independent study, is due to the very specific nature of the trail of events occurring in Lebanon and how Lebanese media sources are reporting the news with all the biases that have been observed.

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