

INTRODUCTION

This is the analysis report of the impact of institutional excellence on the mental image of business organizations.

The analysis includes descriptive statistics, reliability tests, correlation analysis, and regression analysis. The purpose of this report is to provide a clear understanding of these concepts and their relationship with each other (Whitley and Ball, 2002).

Descriptive analysis is the first step in the data analysis process. It provides an overview of the data and describes the main features of the dataset. In this analysis, descriptive statistics were used to summarize the data and provide insights into the central tendency, variability, and distribution of the variables (Descriptive Vs Inferential Statistics Explained, 2023).

Reliability tests were also conducted to determine the consistency and stability of the measures used in the study. The reliability of the measures was assessed using Cronbach's alpha, a commonly used method for assessing internal consistency. This test helps ensure that the data collected are reliable and can be used to make valid inferences (Taber, 2017).

Correlation analysis was used to examine the relationship between different variables in the dataset. This analysis helped identify the strength and direction of the relationship between the variables. A scatter plot was used to visualize the relationship between the variables, and a correlation coefficient was calculated to quantify the strength of the relationship (Correlation and Simple Linear Regression | Natural Resources Biometrics, n.d.)

Finally, regression analysis was conducted to examine the relationship between the dependent variable and one or more independent variables. This analysis helped identify the factors that influence the dependent variable and the nature of the relationship between them. The analysis also provided insights into the predictive power of the independent variables on the dependent variable. (Correlation and Simple Linear Regression | Natural Resources Biometrics, n.d.)

DESCRIPTIVE ANALYSIS

1. Gender distribution

Fig 1. Below shows that 49 % of the respondent are female while 51 % are male

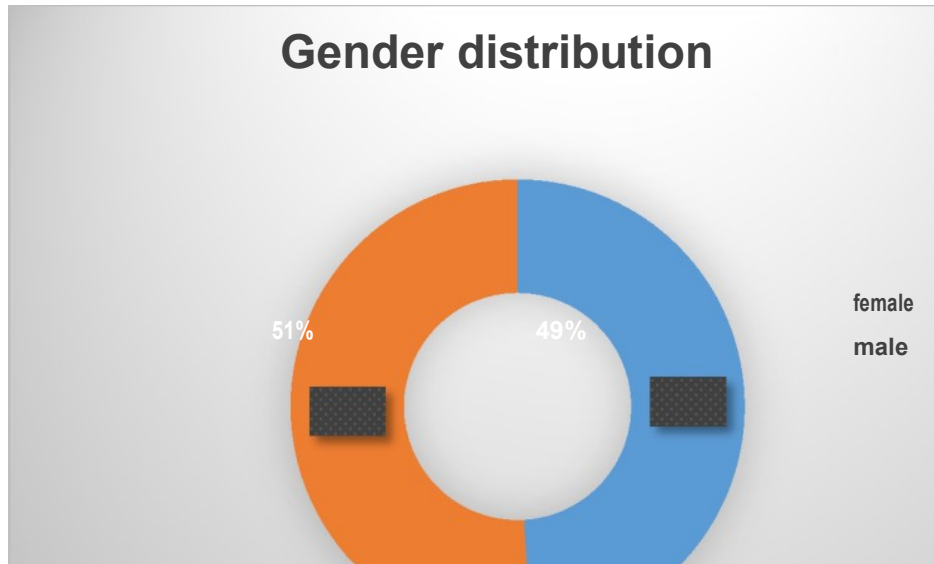


Figure 1.0: Gender distribution of the respondents in percentage

2. Age distribution

Fig 2. Below shows that 13 % of the respondent are between the ages of 15-26 years, 21% are between the ages of 26-35 years, 33% is between the ages of 36-45 years, 30% are between the ages of 46-55 years and 13% are 65 years and above.

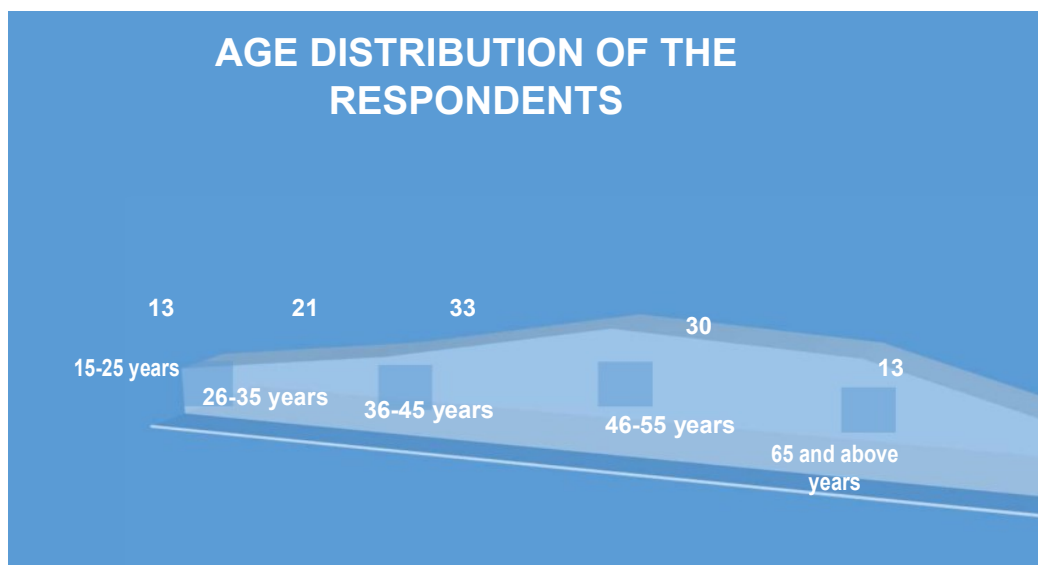


Figure 2.0: The age distribution of the respondents in percentage

3. Educational level of respondent

Fig 3.0 below shows that 24 % of the respondent are secondary school graduate, 47 % are university graduate, 22 % have master degree and 17% has Ph. D. degree

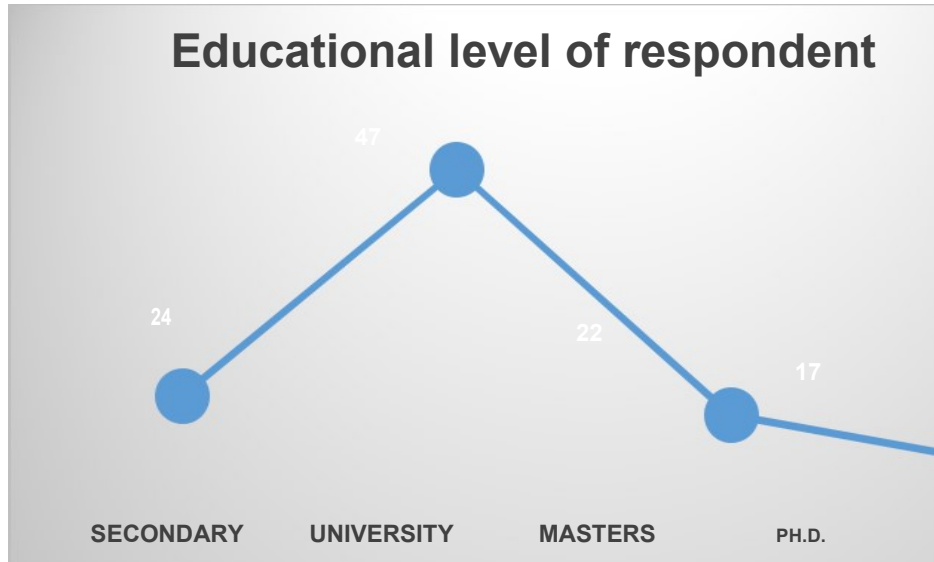


Figure 3.0: figure showing the age distribution of the respondents in percentage

4. Job role of the respondent



Figure 4.0: Job description distribution of the respondents in percentage

5. How respondent answers the survey question in percentage

The table 1.0 below provides a breakdown of survey results on various aspects of excellence, with ratings ranging from strongly disagree (SD) to strongly agree (SA). The first row indicates the respondents' opinions on leadership excellence, with 21.82% strongly agreeing and 50.73% agreeing that the organization excels in this area. The scores for excellence in providing services and human excellence were similar, with the majority of respondents agreeing or strongly agreeing that the organization performed well in these areas.

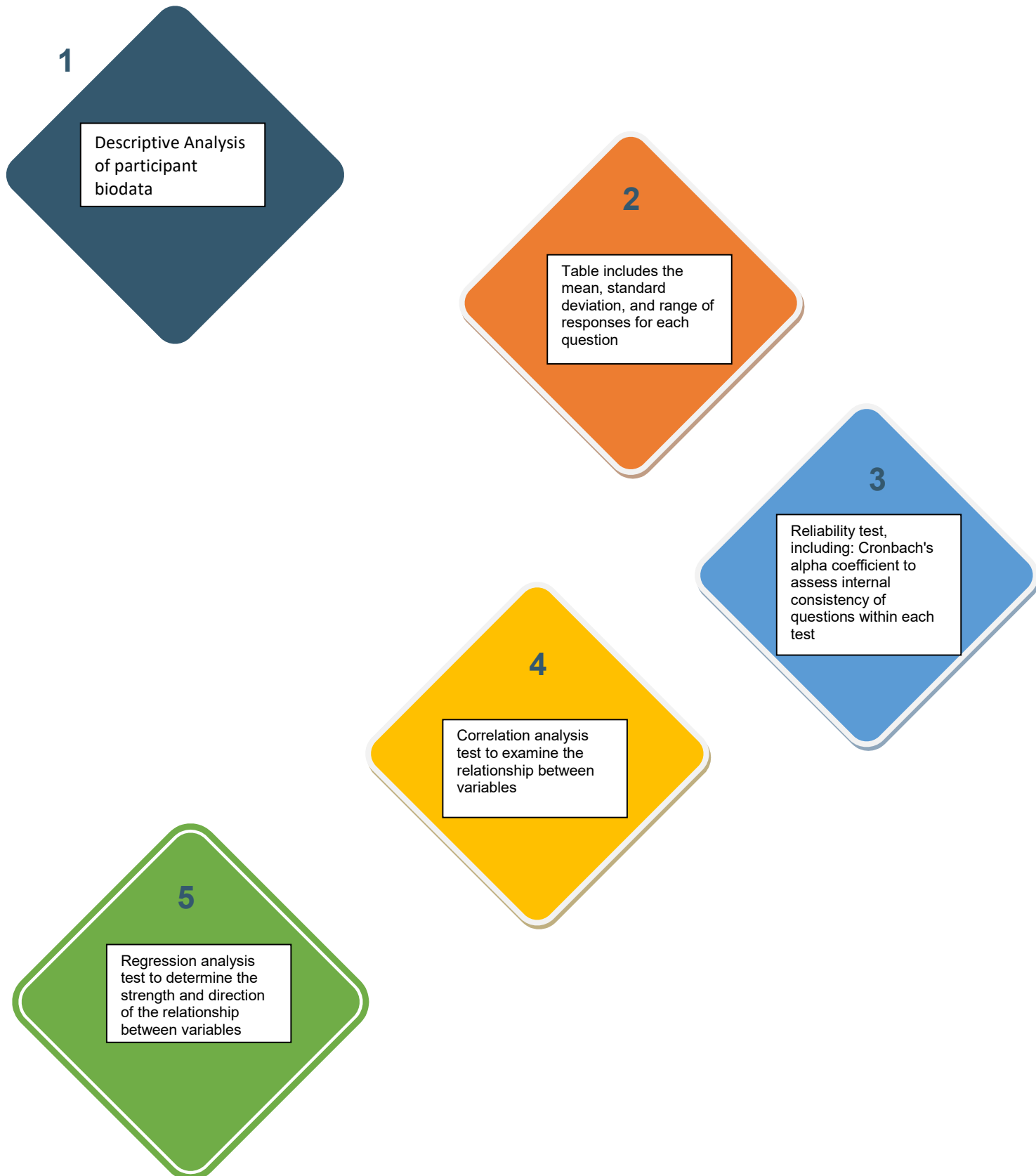
The last three rows of the table are related to mental images - the realistic mental image, desired mental image, and perceived mental image of the organization. Interestingly, the scores for perceived mental image were higher than the other two, indicating that respondents had a more positive view of the organization than their desired or realistic mental image. Overall, the table provides valuable insights into how respondents perceive the organization's performance in different areas of excellence and highlights areas where improvements may be necessary to meet their desired mental image.

Questions	SD	D	N	A	SA
Leadership excellence	0.72	10.18	16.55	50.73	21.82
Excellence in providing services	1.82	12.18	17.45	48.73	19.27
Human Excellence	2.36	10.72	16.55	47.27	22.73
Realistic mental image	2.36	11.64	16.36	47.45	22.18
Desired mental image	1.82	10	17.09	48	22.72
Perceived mental Image	1.64	11.82	15.27	51.09	20.18

Table 1.0: How respondent answer the survey questions, SD=strongly disagree, D=Disagree, N=Neutral, A=Agree, SA= Stro

Methodology

FLOW CHART



- 1. Descriptive analysis of the participants' biodata, including age, gender, educational level, and occupation.**
- 2. A robust table was created to show the response of each participant to the questions in the survey. The table includes the mean, standard deviation, and range of responses for each question. This table was used to analyze the reliability of the survey questions and to identify any patterns or trends in the data.**
- 3. Reliability test, including: Cronbach's alpha coefficient to assess internal consistency of questions within each test Inter-item correlation matrix to measure the degree of relationship between questions in each test**
- 4. Correlation analysis test to examine the relationship between variables, including: Leadership excellence and customers' mental images of Jordanian banks (realistic, desired, and perceived) Human excellence (specifically, excellence in service) and customers' mental images of Jordanian banks**
- 5. Regression analysis test to determine the strength and direction of the relationship between variables, including: Perceived mental image and leadership excellence, excellence in providing services, and human excellence Leadership excellence and excellence in providing services and human excellence in providing services and human excellence.**
- 6. Data collected was analyzed using statistical software, specifically SPSS (Statistical Package for Social Sciences).**
- 7. Ethical considerations were taken into account, and participants' anonymity and confidentiality were ensured throughout the research process.**

ANALYSIS AND RESULT

Reliability Statistics

1. Leadership excellence reliability test

The reliability test shows that Cronbach's alpha is 0.735 for the five questions related to leadership excellence, which is an acceptable level of internal consistency. The inter-item correlation matrix displays the correlations between each pair of questions. The values range from -1 to 1, with higher positive values indicating a stronger positive correlation. In this case, all the correlations are positive, with values ranging from 0.154 to 0.478, which indicates that the questions are moderately correlated with each other.

Overall, based on the reliability test results, the five questions related to leadership excellence appear to be reliable and consistent.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.735	0.739	5

Table 2.0, Cronbach's alpha value of the consistency level of questions in leadership excellence.

2. Excellence in service reliability test

From table 3.0 below, the reliability test for these questions related to excellence in service yielded a Cronbach's alpha coefficient of 0.709, indicating a moderate level of internal consistency. The Cronbach's alpha based on standardized items is also reported as 0.713, which is slightly higher than the raw alpha value. Looking at the item statistics, the mean scores for all five items range between 2.64 to 2.79 on a 5-point Likert scale, indicating that the respondents perceived these aspects of service excellence to be moderately important. The standard deviation values for all items are relatively high, indicating a wide range of responses from the respondents. The inter-item correlation matrix shows that all items are positively correlated with each other, with correlation coefficients ranging from 0.094 to 0.533. However, the lowest correlation coefficient of 0.094 between the fourth and fifth items indicates that these two items may not be strongly related.

Overall, the results suggest that the questions related to excellence in service have moderate internal consistency and are positively correlated with each other.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.709	0.713	5

Table 3.0, Cronbach's alpha value of the consistency level of questions in excellence in service

3. Excellence in service reliability test

The reliability test for the questions related to leadership excellence shows a Cronbach's alpha of .695, which indicates an acceptable level of internal consistency reliability. The Cronbach's alpha based on standardized items is slightly higher at .700. The item statistics show that the mean scores for each question are all above the midpoint of the scale (2.5), indicating that participants generally agreed with the statements. However, the standard deviation for some questions is quite high, suggesting that there may be some variability in responses. The inter-item correlation matrix shows moderate to strong positive correlations among the questions, with correlation coefficients ranging from .147 to .465. These correlations suggest that the questions are measuring related constructs and are consistent with the notion that they are assessing leadership excellence.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.695	0.700	5

Table 4.0, Cronbach's alpha value of the consistency level of questions in leadership excellence

4. Realistic mental image reliability test

The reliability test for realistic mental image has a Cronbach's alpha coefficient of 0.775 from the table 5.0 below, which indicates good internal consistency among the five items. This means that the items in the test are measuring the same underlying construct, which is the realistic mental image of Jordanian banks. Looking at the item statistics, the means for all five items are between 2.69 and 2.88, which suggests that respondents on average are neutral to slightly positive about the items. The standard deviations range from 0.984 to 1.038, indicating that there is some variability in responses.

Overall, the reliability test suggests that the five items are reliable measures of the realistic mental image of Jordanian banks, and that respondents have a generally positive but somewhat neutral view of this image.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.775	0.775	5

Table 5.0, Cronbach's alpha value of the consistency level of questions in realistic mental image.

5. Desired mental image reliability test

The reliability analysis for the desired mental image scale shows a Cronbach's alpha of .691, indicating acceptable internal consistency reliability. The inter-item correlation matrix shows moderate to high correlations among the items, ranging from .096 to .481. The mean scores for the items range from 2.67 to 2.84, indicating that respondents' perceptions of Jordanian banks' Customer service performance are generally positive, but not outstandingly so. Overall, the scale appears to be a moderately reliable and valid measure of customers' desired mental image of Jordanian banks' customer service performance.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.691	0.699	5

Table 6.0, Cronbach's alpha value of the consistency level of questions in desired mental image.

6. Perceived mental image reliability test

The reliability test shows a Cronbach's alpha of .660, indicating moderate internal consistency reliability among the five items measuring the perceived mental image of Jordanian banks. However, this value is below the generally accepted threshold of .70, suggesting that the items may not be highly correlated with each other. Looking at the item statistics, the mean scores for each item are around 2.7-2.8, indicating a neutral to slightly positive perception of Jordanian banks. The standard deviations for each item range from .848 to 1.059, suggesting some variability in responses.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.660	0.663	5

Table 7.0, Table showing the Cronbach's alpha value of the consistency level of questions in Perceived mental image.

Correlation analysis

Correlation analysis between human excellence and the dependent variables:

The correlation analysis shows that there is a significant positive correlation between leadership excellence and realistic mental image ($r = 0.170$, $p = 0.047$). There is also a significant positive correlation between leadership excellence and desired mental image ($r = 0.200$, $p = 0.020$), as well as between excellence and perceived mental image ($r = 0.264$, $p = 0.002$), with the latter being the strongest correlation among all variables. There is a significant positive correlation between realistic mental image and desired mental image ($r = 0.394$, $p < 0.001$), as well as between realistic mental image and perceived mental image ($r = 0.258$, $p = 0.002$). There is a significant positive correlation between desired mental image and perceived mental image ($r = 0.363$, $p < 0.001$).

Overall, the results suggest that there are positive correlations between the variables, indicating that improvements in leadership excellence may lead to improvements in customers' mental images of Jordanian banks, including both realistic and desired mental images, as well as perceived mental image. Improvements in these mental images may in turn lead to increased trust and comfort among customers in dealing with Jordanian banks.

		Leadership excellence	Realistic mental image:	Desired mental image	Perceived mental image
Leadership excellence	Correlation Coefficient	1.000	.170 *	.200 *	.264 **
	Sig. (2-tailed)	.	.047	.020	.002
Realistic mental image:	Correlation Coefficient	.170 *	1.000	.394 **	.258 **
	Sig. (2-tailed)	.047	.	<.001	.002
Desired Mental Image	Correlation Coefficient	.200 *	.394 **	1.000	.363 **
	Sig. (2-tailed)	.020	<.001	.	<.001
Perceived mental image	Correlation Coefficient	.264 **	.258 **	.363 **	1.000
	Sig. (2-tailed)	.002	.002	<.001	.

Table 8.0 correlation coefficient and significance level of leadership excellence with realistic image, desired image and perceived image. *. Correlation is significant at the 0.05 level (2-tailed).

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

Correlation analysis table 9.0 above shows the correlation coefficients between four variables: Excellence in service, Realistic mental image, desired mental image, and Perceived mental image. The correlation coefficient measures the strength and direction of the relationship between two variables. The coefficient can range from -1 to +1. A coefficient of +1 indicates a perfect positive correlation, while a coefficient of -1 indicates a perfect negative correlation. A coefficient of 0 indicates no correlation between the variables. Looking at the table, we can see that there is a significant positive correlation between Excellence in service and all the other variables (Realistic mental image, Desired mental image, and Perceived mental image) with correlation coefficients of 0.332**, 0.322**, and 0.262** respectively. This suggests that as excellence in service increases, there is a tendency for realistic, desired, and perceived mental images to improve as well.

Overall, the correlation table suggests that excellence in service is an important factor in improving customers' mental images of Jordanian banks, and that improving the realistic mental image of the bank can also positively impact customers' desired and perceived mental images.

Desired Mental Image	Correlation	.332*	.363 **	1.000	.258 **
	Coefficient				
	Sig. (2-tailed)	<.001	<.001	.	.002
Perceived mental image	Correlation	.262 **	.394 **	.258 **	1.000
	Coefficient				
	Sig. (2-tailed)	.002	<.001	.002	.

Table 9.0: Correlation coefficient and significance value of the relationship between excellence in service and the dependent variables

***. Correlation is significant at the 0.05 level (2-tailed).**

C. The results show a positive correlation between Human Excellence and each of the dependent variables, with correlation coefficients ranging from 0.238 to 0.390, all significant at the 0.01 level. This suggests that as Human Excellence increases, so does the desired, perceived, and realistic mental image of the service being provided. It's also worth noting that the correlation coefficient between Perceived Mental Image and Desired Mental Image is the highest among all the coefficients, indicating a strong positive relationship between these two variables. The correlation between Realistic Mental Image and Human Excellence is the weakest among all the coefficients

		Human Excellen ce	Desired mental image	Perceived mental image	Realistic mental image
Human excellence	Correlation Coefficient	1.000	.300 **	.390 **	.238 **
	Sig. (2-tailed)	.	<.001	<.001	.004
Desired mental image	Correlation Coefficient	.300 **	1.000	.363 **	.394 **
	Sig. (2-tailed)	<.001	.	<.001	<.001
Perceived mental image	Correlation Coefficient	.390 **	.363 **	1.000	.258 **
	Sig. (2-tailed)	<.001	<.001	.	.002
Realistic mental image:	Correlation Coefficient	.238 **	.394 **	.258 **	1.000
	Sig. (2-tailed)	.004	<.001	.002	.

Table 10.0: Table showing the correlation coefficient and significance value of the relationship between excellence in service and the dependent variables

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

b. Listwise N = 110

REGRESSION ANALYSIS

A.

From Table 11 below, Perceived mental image has a weak to moderate positive correlation with leadership excellence ($r = 0.256$), excellence in providing services ($r = 0.321$), and human excellence ($r = 0.429$). Leadership excellence has a weak to moderate positive correlation with excellence in providing services ($r = 0.393$) and human excellence ($r = 0.348$). Excellence in providing services has a weak positive correlation with human excellence ($r = 0.320$). All of these correlations are statistically significant at the 0.05 level, based on the one-tailed p-values. This suggests that there is evidence of a significant linear relationship between each pair of variables.

Overall, the results suggest that there may be some relationship between the variables, with perceived mental image showing the strongest association with the other variables. However, it is important to note that correlation does not imply causation, and further research would be needed to establish any causal relationships between these variables.

		perceived mental image	leadership excellence	excellence in providing services	human Excellence
Pearson Correlation	perceived mental image	1.000	.256	.321	.429
	leadership excellence	.256	1.000	.393	.348
	excellence in providing services	.321	.393	1.000	.320
	human Excellence	.429	.348	.320	1.000
Sig. (1-tailed)	perceived mental image	.	.003	<.001	<.001
	leadership excellence	.003	.	.000	.000
	excellence in providing services	.000	.000	.	.000
	human Excellence	.000	.000	.000	.

Table 11. Regression analysis between perceived mental image and the dependent variables

B.

From the table 12 below, The Pearson correlation coefficients range from -1 to 1 and indicate the strength and direction of the relationship between two variables. A coefficient of 1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 indicates no correlation. In this analysis, the correlation coefficients suggest that there are positive relationships between all four variables, with coefficients ranging from 0.278 to 0.390. This means that as one variable increases, the other variable tends to increase as well. The significance levels, indicated by the "Sig. (1-tailed)" column, show the probability of obtaining the observed correlation coefficient by chance. A significance level of less than 0.05 is generally considered statistically significant, which means that the observed correlation is unlikely to have occurred by chance.

In this analysis, all the significance levels are less than 0.05, indicating that the correlations are statistically significant.

		desired mental image	leadership excellence	excellence in providing services	human Excellence
Pearson Correlation	desired mental image	1.000	.278	.390	.382
	leadership excellence	.278	1.000	.393	.348
	excellence in providing services	.390	.393	1.000	.320
	human Excellence	.382	.348	.320	1.000
Sig. (1-tailed)	desired mental image	.	.002	<.001	<.001
	leadership excellence	.002	.	.000	.000
	excellence in providing services	.000	.000	.	.000
	human Excellence	.000	.000	.000	.

Table 12. Regression analysis between desired mental image and the dependent variables

C.

From Table 14 below, The Pearson correlation coefficients range from -1 to 1 and indicate the strength and direction of the relationship between two variables. A coefficient of 1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 indicates no correlation. In this analysis, the correlation coefficients suggest that there are positive relationships between all four variables, with coefficients ranging from 0.120 to 0.393. However, the correlations are weaker than those observed in the previous analysis. The significance levels, indicated by the "Sig. (1-tailed)" column, show the probability of obtaining the observed correlation coefficient by chance. A significance level of less than 0.05 is generally considered statistically significant, which means that the observed correlation is unlikely to have occurred by chance. In this analysis, two of the significance levels are less than 0.05 (excellence in providing services and human excellence), indicating that these correlations are statistically significant. However, the correlation between realistic mental image and leadership excellence is not statistically significant.

Overall, these results suggest that there are positive relationships between the variables of realistic mental image, leadership excellence, excellence in providing services, and human excellence, but the correlations are weaker than those observed in the previous analysis. The correlations between excellence in providing services and human excellence are statistically significant, but the correlation between realistic mental image and leadership excellence is not statistically significant.

		realistic mental image	leadership excellence	excellence in providing services	human Excellence
Pearson Correlation	realistic mental image	1.000	.120	.306	.261
	leadership excellence	.120	1.000	.393	.348
	excellence in providing services	.306	.393	1.000	.320
	human Excellence	.261	.348	.320	1.000
Sig. (1-tailed)	realistic mental image	.	.106	<.001	.003
	leadership excellence	.106	.	.000	.000
	excellence in providing services	.001	.000	.	.000
	human Excellence	.003	.000	.000	.

Table 13: Regression analysis between realistic mental image and the dependent variables

DISCUSSION

Discussion on reliability test

Based on the reliability tests, it can be concluded that the questions related to leadership excellence, excellence in service, realistic mental image, desired mental image, and perceived mental image are all moderately to highly reliable. The Cronbach's alpha coefficients for all tests were above the acceptable level of .60, indicating that the items within each test are measuring the same underlying construct. The inter-item correlation matrices for each test also showed moderate to strong positive correlations, indicating that the questions are measuring related constructs. However, some of the questions in the excellence in service test and the desired mental image test showed lower inter-item correlations, suggesting that these questions may not be strongly related to each other. Overall, the reliability tests suggest that the questions used in these tests are reliable and consistent measures of their respective constructs.

Discussion of correlation analysis test

In the first analysis, the focus is on the relationship between leadership excellence and customers' mental images of Jordanian banks, including realistic, desired, and perceived mental images. The results show that there is a positive correlation between leadership excellence and all the mental images, with the strongest correlation found between leadership excellence and perceived mental image. Moreover, there is a positive correlation between realistic mental image and desired mental image, as well as between realistic mental image and perceived mental image. Finally, there is a positive correlation between desired mental image and perceived mental image. In the second analysis, the focus is on the relationship between human excellence (specifically, excellence in service) and customers' mental images of Jordanian banks. The results show that there is a positive correlation between excellence in service and all the mental images, with the strongest correlation found between excellence in service and realistic mental image.

Overall, the results suggest that improvements in leadership excellence and excellence in service may lead to improvements in customers' mental images of Jordanian banks, which may in turn lead to increased trust and comfort among customers in dealing with these banks.

Discussion on Regression analysis test

Based on the regression analyses conducted in Tables 11, 12, and 13, there is evidence of a positive relationship between the variables being studied. However, the strength of the relationship varies depending on the specific variables being compared.

In Table 11, perceived mental image has a moderate positive correlation with leadership excellence, excellence in providing services, and human excellence. Leadership excellence has a weak to moderate positive correlation with excellence in providing services and human excellence. Excellence in providing services has a weak positive correlation with human excellence. All of these correlations are statistically significant at the 0.05 level, based on the one-tailed p-values.

In Table 12, desired mental image has a positive correlation with leadership excellence, excellence in providing services, and human excellence, with coefficients ranging from 0.278 to 0.390. All of these correlations are statistically significant at the 0.05 level.

In Table 13, realistic mental image has weaker positive correlations with leadership excellence, excellence in providing services, and human excellence, with coefficients ranging from 0.120 to 0.393. The correlation between realistic mental image and leadership excellence is not statistically significant, but the correlations between realistic mental image and excellence in providing services, as well as human excellence, are statistically significant at the 0.05 level.

CONCLUSION

Overall, the findings from the reliability, correlation, and regression analyses suggest that there is a positive relationship between leadership excellence, excellence in service, human excellence, and customers' mental images of Jordanian banks. The reliability tests indicate that the questions used to measure these constructs are reliable and consistent measures of their respective constructs. The correlation analyses show that improvements in leadership excellence and excellence in service may lead to improvements in customers' mental images of Jordanian banks, which may result in increased trust and comfort among customers in dealing with these banks. The regression analyses provide evidence of a positive relationship between the variables being studied, with perceived mental image showing a moderate positive correlation with leadership excellence, excellence in providing services, and human excellence. These findings have important implications for bank management, as they suggest that improving leadership and service quality may lead to positive changes in customers' perceptions and behaviors.

RECOMMENDATION

Based on the findings of the reliability, correlation, and regression analyses, it is recommended that Jordanian banks focus on improving their leadership excellence, excellence in providing services, and human excellence. The results suggest that these factors are positively associated with customers' mental images of the banks, which can ultimately lead to increased trust and loyalty among customers. To improve leadership excellence, banks may consider investing in leadership development programs for their executives and managers. To improve excellence in providing services, banks may consider implementing customer service training for their employees and enhancing their service delivery processes. To improve human excellence, banks may consider focusing on employee recruitment and retention strategies that attract and retain top talent, as well as offering training and development opportunities to enhance their skills and knowledge. By focusing on these areas, Jordanian banks can improve their overall reputation and competitiveness in the market.

Reference

Whitley E, Ball J. Statistics review 1: Presenting and summarising data. Crit Care. 2002;6:66–71.

Correlation and Simple Linear Regression | Natural Resources Biometrics. (n.d.). Correlation and Simple Linear Regression | Natural Resources Biometrics.
<https://courses.lumenlearning.com/suny-natural-resources-biometrics/chapter/chapter-7-correlation-and-simple-linear-regression/>

Taber, K. S. (2017, June 7). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education - Research in Science Education. SpringerLink.
<https://doi.org/10.1007/s11165-016-9602-2>

Descriptive vs Inferential Statistics Explained. (2023, April 5). CareerFoundry.
<https://careerfoundry.com/en/blog/data-analytics/inferential-vs-descriptive-statistics/>