

Proposed Sustainable Customer Satisfaction Survey Report on Integrated Descriptive Statistical and Qualitative Matrices: A Creative Work for Data Visualization Innovation

Brandon G. Sibbaluca¹, Rico Gabriel A. Ramos²

Research and Development Office, Emilio Aguinaldo College Cavite
brandon.sibbaluca@eac.edu.ph¹, ricogabriel.ramos@eac.edu.ph²

The customer satisfaction survey, or the CSS, is a vital measurement tool and an instrument to determine how products, services, or overall experiences meet or exceed the expectations of an entity's clients. Usually in an educational context, learners, parents/guardians, employees, alumni, visitors, and other specified options are served as customers (stakeholders). Emilio Aguinaldo College Cavite adheres to ISO 9001:2015 "Standards Quality Management" and ISO 21001:2025 "Educational Organizations Management System," specifically on the performance evaluation in terms of customer satisfaction monitoring, measurement, analysis, and evaluation and its methods.

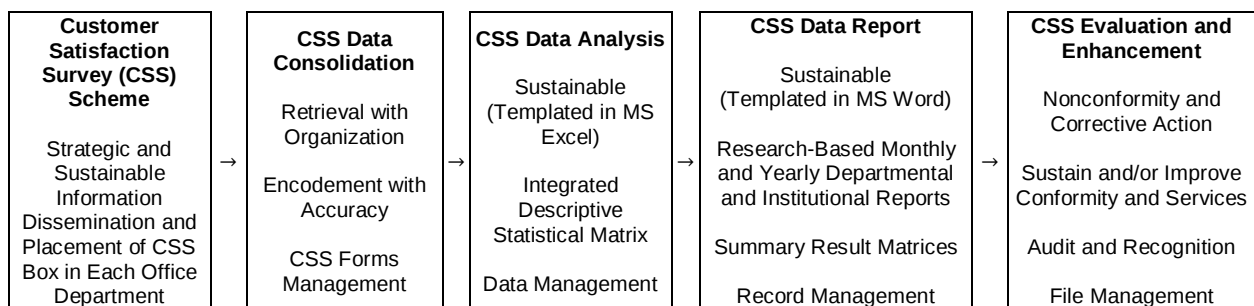


Figure 1. Proposed Sequential Framework for Customer Satisfaction Management

Figure 1 shows the proposed customer satisfaction management sequential framework. For the first phase, the CSS scheme should be implemented, a combination of customer satisfaction and a suggestion scheme from ISO 21001:2018, "Educational Organizations Management System" (Annex E.3 Tools, third line). It involves strategic and sustainable dissemination of information about the CSS to the customers and placement of the CSS box in each office department of an educational institution.

All learners should be aware that they can provide feedback to their affiliated school department and other office departments for every transaction for the services they have received, as they are the main customers of an institution. Learners and other categories of respondents should be able to conveniently provide feedback, so placement of the CSS box in each office department matters. This will be followed by the second phase, "CSS Data Consolidation," which involves retrieval with organization, encodement with accuracy, and forms management.

The CSS data analysis and report (phases 3 and 4) must be sustainable, which includes strategically templated MS Excel and MS Word with integrated descriptive statistics and research-based summary result matrices at a monthly and yearly departmental and institutional level. This report is sustainable because of formatted and templated tools, as during encoding of data, results automatically show in MS Excel, and copy-pasting to a Word file will be done for every work. Phase 5 is the CSS evaluation and enhancement, where there is a corrective action to nonconformity followed by sustainable and/or improved conformity and services with audits and recognition. And all documents must be securely managed.

Table 1. Proposed Format for Departmental CSS Report MS Word File

Category	Description
Paper Size	8.5"x13"
Margin	Top: 1.25" Bottom: 0.50" Left: 0.50" Right: 0.50"
Header and Footer	Templated
Main Text Font Style	Arial
Main Text Font Size	12
All Line Spacing	Single Space
Prelude Main Content Each Page	CUSTOMER SATISFACTION SURVEY (CSS) Departmental Monthly Report [Department Full Name (ABBREVIATION)] [Month Year] [Single Space]
Table Format	American Psychology Association (APA) 7th Edition (2019)
Font Size in Table 1	7
Font Size in Other Tables	8
Cell Margins in Tables	Top: 0.00" Bottom: 0.00" Left: 0.02" Right: 0.02"
Table 1 Content	Title: Integrated Descriptive Statistical Matrix Column 1: Respondents' Profile - Sub-column 1: Category - Rows: Learners; Parents/Guardians; Visitors; Alumni; Employees; Others; Total; Person with Disability (PWD) - Sub-column 2: Frequency - Sub-column 3: Percentage (% with Bar) - Sub-column 4: Views (Rank #, No Missing Data & Total Rank # Compared to All Offices) Column 2: Customer Satisfaction - Sub-column 1: Items - Rows for Each Respondent's Profile Category: 1. Handles the transaction courteously; 2. Gives the right response to the request/inquiry. 3. Delivers prompt service on request/inquiry. 4. Communicates well by providing clear direction/instruction; 5. Provides impressive delivery of service; Grand Average (Composite Average for Total Category) - Sub-column 2: Mean (x with Bar) - Sub-column 3: Standard Deviation Column 3: Verbal Interpretation Column 4: Points (Satisfaction Rank #, Total Satisfaction Rank # Compared to All Offices) Note. Frequencies marked with a superscript indicate inclusion of at least one customer with a disability (PWD), with the superscript value representing the number of such respondents and the PWD context inside the parenthesis. Legend: 3.51-4.00 Satisfied; 2.51-3.50 Satisfied; 1.51-2.50 Unsatisfied; 1.00-1.50 Very Unsatisfied
Table 2 Content	Title: Narrative Response Matrix Column 1: Respondents' Profile - Rows: Learners; Parents/Guardians; Visitors; Alumni; Employees; Others; Total; Person with Disability (PWD) Column 2: Comment(s)/Suggestion(s) - Rows: List of Narrative Response Note. Comments marked with a left superscript "@" are indicated from PWD respondents. Legend: *positive sentiment* = Emoji (Smile, Heart Eyes, Heart, etc.); *negative sentiment* = Emoji (Sad, Disappointed, Cry, etc.); *context* = Not Service-Related
Table 3 Content	Title: Overall Results Column 1: Insights Rows: Quantitative interpretation, qualitative interpretation, conclusion, recommendation(s) Column 2: Findings
Table 4 Content (Optional)	Title: Bibliography [If Any] Column 1: Reference List Column 2: QR Code
Table 4/5 Content	Title: Originality of Work Column 1: Item - Row 1: Turnitin Results: Similarity Index (SI) and AI Detection Reports Threshold: SI ≤ 20%, AI = ≤ 19% (*) → Result: SI = (Met), AI = (Met) - Row 2: All documents, including MS Excel, NVivo, and other soft copy files. (Highly Confidential) Column 2: QR Code Note. Write a reasonably complete message as you request access to the Turnitin results.
Postlude Main Content	Prepared by: _____ Reviewed by: _____ Approved by: _____ Prefix(s), FULL NAME, Suffix(s) Prefix(s), FULL NAME, Suffix(s) Prefix(s), FULL NAME, Suffix(s) [Data Analyst /Similar] [Director /Similar] Vice President for Academic Affairs Research and Development Office Research and Development Office Institution's Full Name
[Continued Content if Breaks]	[Postlude Main Content]
Action(s) Taken by the Office Department	Prepared by: _____ Supporting evidence received by: _____ Noted by: _____ Departmental Head Data Analyst Director VPAA Research and Development Office RDO Institution's Full Name

Table 1 displays the proposed format for the departmental monthly CSS report MS Word file. The described paper size and margin are to increase the space of the CSS report. Other categories are templated to achieve the proposed sustainable CSS report on integrated descriptive statistical and qualitative matrices. See the sample work below.



EMILIO AGUINALDO COLLEGE
Div. D. Mangrove Ave., Bldg. Bantayan, City of Quezon, Cebu 4114, Philippines
Tel. Nos. (045) 418-4330/41 0000-0000-0000

PLANNING & QUALITY MANAGEMENT

CUSTOMER SATISFACTION SURVEY (CSS)
Departmental Monthly Report

[Department Full Name (ABBREVIATION)]
[Month Year]

Table 1. Integrated Descriptive Statistical Matrix

Category	Frequency	Percentage	Views	Mean	Standard Deviation	Verbal Interpretation	Points
Learners	(5 w/ Bar)						
Parents / Guardians	(5 w/ Bar)						
Visitors	(5 w/ Bar)						
Alumni	(5 w/ Bar)						
Employees	(5 w/ Bar)						
Others	(5 w/ Bar)						
Total	(5 w/ Bar)						
Person With Disability (PWD)	(5 w/ Bar)						

Table 2. Narrative Response Matrix

Item	Response
1. Handles the transaction courteously.	[x w/ Bar]
2. Gives the right response to the request/inquiry.	[x w/ Bar]
3. Delivers prompt service on request/inquiry.	[x w/ Bar]
4. Communicates well by providing clear direction/instruction.	[x w/ Bar]
5. Provides impressive delivery of service.	[x w/ Bar]
Grand Average	[x w/ Bar]

Table 3. Overall Results

Item	Frequency
1. Handles the transaction courteously.	[x w/ Bar]
2. Gives the right response to the request/inquiry.	[x w/ Bar]
3. Delivers prompt service on request/inquiry.	[x w/ Bar]
4. Communicates well by providing clear direction/instruction.	[x w/ Bar]
5. Provides impressive delivery of service.	[x w/ Bar]
Grand Average	[x w/ Bar]

Table 4. Bibliography (If Any)

Prepared by: _____
Reviewed by: _____

Prefix(s): FULL NAME, Suffix(s)
Data Analyst
Research and Development Office

Prefix(s): FULL NAME, Suffix(s)
Director
Research and Development Office

Approved by: _____
Prefix(s): FULL NAME, Suffix(s)
Vice President
Office of the Academic Affairs



EMILIO AGUINALDO COLLEGE
Div. D. Mangrove Ave., Bldg. Bantayan, City of Quezon, Cebu 4114, Philippines
Tel. Nos. (045) 418-4330/41 0000-0000-0000

PLANNING & QUALITY MANAGEMENT

CUSTOMER SATISFACTION SURVEY (CSS)
Departmental Monthly Report

[Department Full Name (ABBREVIATION)]
[Month Year]

Table 1. Integrated Descriptive Statistical Matrix

Category	Frequency	Percentage	Views	Mean	Standard Deviation	Verbal Interpretation	Points
Learners	(5 w/ Bar)						
Parents / Guardians	(5 w/ Bar)						
Visitors	(5 w/ Bar)						
Alumni	(5 w/ Bar)						
Employees	(5 w/ Bar)						
Others	(5 w/ Bar)						
Total	(5 w/ Bar)						
Person With Disability (PWD)	(5 w/ Bar)						

Table 2. Narrative Response Matrix

Item	Response
1. Handles the transaction courteously.	[x w/ Bar]
2. Gives the right response to the request/inquiry.	[x w/ Bar]
3. Delivers prompt service on request/inquiry.	[x w/ Bar]
4. Communicates well by providing clear direction/instruction.	[x w/ Bar]
5. Provides impressive delivery of service.	[x w/ Bar]
Grand Average	[x w/ Bar]

Table 3. Overall Results

Item	Frequency
1. Handles the transaction courteously.	[x w/ Bar]
2. Gives the right response to the request/inquiry.	[x w/ Bar]
3. Delivers prompt service on request/inquiry.	[x w/ Bar]
4. Communicates well by providing clear direction/instruction.	[x w/ Bar]
5. Provides impressive delivery of service.	[x w/ Bar]
Grand Average	[x w/ Bar]

Table 4. Bibliography (If Any)

Prepared by: _____
Reviewed by: _____

Prefix(s): FULL NAME, Suffix(s)
Data Analyst
Research and Development Office

Prefix(s): FULL NAME, Suffix(s)
Director
Research and Development Office

Approved by: _____
Prefix(s): FULL NAME, Suffix(s)
Vice President
Office of the Academic Affairs



EMILIO AGUINALDO COLLEGE
Div. D. Mangrove Ave., Bldg. Bantayan, City of Quezon, Cebu 4114, Philippines
Tel. Nos. (045) 418-4330/41 0000-0000-0000

PLANNING & QUALITY MANAGEMENT

CUSTOMER SATISFACTION SURVEY (CSS)
Departmental Monthly Report

[Department Full Name (ABBREVIATION)]
[Month Year]

Table 1. Integrated Descriptive Statistical Matrix

Category	Frequency	Percentage	Views	Mean	Standard Deviation	Verbal Interpretation	Points
Learners	(5 w/ Bar)						
Parents / Guardians	(5 w/ Bar)						
Visitors	(5 w/ Bar)						
Alumni	(5 w/ Bar)						
Employees	(5 w/ Bar)						
Others	(5 w/ Bar)						
Total	(5 w/ Bar)						
Person With Disability (PWD)	(5 w/ Bar)						

Table 2. Narrative Response Matrix

Item	Response
1. Handles the transaction courteously.	[x w/ Bar]
2. Gives the right response to the request/inquiry.	[x w/ Bar]
3. Delivers prompt service on request/inquiry.	[x w/ Bar]
4. Communicates well by providing clear direction/instruction.	[x w/ Bar]
5. Provides impressive delivery of service.	[x w/ Bar]
Grand Average	[x w/ Bar]

Table 3. Overall Results

Item	Frequency
1. Handles the transaction courteously.	[x w/ Bar]
2. Gives the right response to the request/inquiry.	[x w/ Bar]
3. Delivers prompt service on request/inquiry.	[x w/ Bar]
4. Communicates well by providing clear direction/instruction.	[x w/ Bar]
5. Provides impressive delivery of service.	[x w/ Bar]
Grand Average	[x w/ Bar]

Table 4. Bibliography (If Any)

Prepared by: _____
Reviewed by: _____

Prefix(s): FULL NAME, Suffix(s)
Data Analyst
Research and Development Office

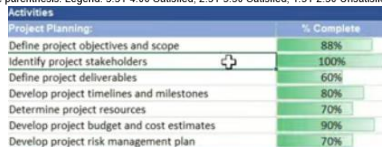
Prefix(s): FULL NAME, Suffix(s)
Director
Research and Development Office

Approved by: _____
Prefix(s): FULL NAME, Suffix(s)
Vice President
Office of the Academic Affairs

Table 1. Integrated Descriptive Statistical Matrix

Respondents' Profile				Customer Satisfaction			Verbal Interpretation	Points
Category	Frequency	Percentage	Views	Items	Mean	Standard Deviation		
Learners		[% w/ Bar]		1. Handles the transaction courteously.	[x w/ Bar]			
				2. Gives the right response to the request/inquiry.	[x w/ Bar]			
				3. Delivers prompt service on request/inquiry.	[x w/ Bar]			
				4. Communicates well by providing clear direction/instruction.	[x w/ Bar]			
				5. Provides impressive delivery of service.	[x w/ Bar]			
				Grand Average	[x w/ Bar]			
Parents / Guardians		[% w/ Bar]		1. Handles the transaction courteously.	[x w/ Bar]			
				2. Gives the right response to the request/inquiry.	[x w/ Bar]			
				3. Delivers prompt service on request/inquiry.	[x w/ Bar]			
				4. Communicates well by providing clear direction/instruction.	[x w/ Bar]			
				5. Provides impressive delivery of service.	[x w/ Bar]			
				Grand Average	[x w/ Bar]			
...Visitors, Alumni, Employees, Others (Categories)...								
Total		[% w/ Bar]		1. Handles the transaction courteously.	[x w/ Bar]			
				2. Gives the right response to the request/inquiry.	[x w/ Bar]			
				3. Delivers prompt service on request/inquiry.	[x w/ Bar]			
				4. Communicates well by providing clear direction/instruction.	[x w/ Bar]			
				5. Provides impressive delivery of service.	[x w/ Bar]			
				Composite Average	[x w/ Bar]			
Person With Disability (PWD)		[% w/ Bar]		1. Handles the transaction courteously.	[x w/ Bar]			
				2. Gives the right response to the request/inquiry.	[x w/ Bar]			
				3. Delivers prompt service on request/inquiry.	[x w/ Bar]			
				4. Communicates well by providing clear direction/instruction.	[x w/ Bar]			
				5. Provides impressive delivery of service.	[x w/ Bar]			
				Grand Average	[x w/ Bar]			

Note: Frequencies marked with a superscript indicate inclusion of at least one customer with a disability (PWD), with the superscript value representing the number of such respondents and the PWD context inside the parenthesis. Legend: 3.51-4.00 Satisfied; 2.51-3.50 Satisfied; 1.51-2.50 Unsatisfied; 1.00-1.50 Very Unsatisfied



(Sample % or x with Bar)

Figure 2. Sample Proposed Sustainable Departmental Monthly CSS Report

Figure 2 presents the sample proposed sustainable departmental CSS report MS Word file. The descriptive statistical matrix integrates CSS items with grand average

and standard deviation with respect to the respondents' profile categories in frequency and percentage with bars, which are numerical and graphical representations. These cover all types of CSS customers, including learners, parents/guardians, visitors, alumni, employees, others (specify), the total, and PWD respondents, with respect to their ratings, covering them in only one page and conveniently interpreting the quantitative findings. Additionally, the narrative response matrix categorized the respondents' profiles to easily visualize, analyze, and provide convenient qualitative interpretation. This report would easily visualize, for the department team, which respondents provide satisfactory and unsatisfactory qualitative and quantitative ratings and address the problem following the research-based conclusion and recommendation by the data analyst.

With this proposed data visualization innovation, the data analyst would have flexible reporting of CSS, including monthly and yearly departmental and institutional reports. The integrated descriptive statistical matrix is a standalone table, which you can easily interpret by just looking at the innovative visualization tool. This original work is limited to showcasing only the monthly departmental CSS report of an institution and is open for interested readers to be creative in developing a monthly institutional report, a yearly departmental report, and a yearly institutional report. The combined quotes, "The key is to set realistic customer expectations and then not to just meet them, but to exceed them—preferably in unexpected and helpful ways" by Richard Branson (Founder of Virgin Group) and "Innovation is about practical creativity; it is about making new ideas useful" by Max Mckeown, motivate this creative work to utilize the proposed data visualization innovation in CSS reporting. This original work would contribute to quality education (SDG 4), innovation (SDG 9), and strong institutions (SDG 16).

References

- Emilio Aguinaldo College Cavite (2021). Customer Satisfaction Procedure (Revised in 2024). Planning and Quality Management. (For Enhancement to 2026 Version, Research and Development Office).
- International Organization for Standardization (2015). ISO 9001:2015 Quality Management Systems Standard. American National Standards Institute. <https://www.iso.org/standard/62085.html>
- International Organization for Standardization (2025). ISO 21001:2025(en): Educational organizations — Management systems for educational organizations. <https://www.iso.org/obp/ui/es/#iso:std:iso:21001:ed-2:v1:en>
- Mckeown, M. (2017). The difference between NOWists and THENists. Innovation and Creativity Summit. https://www.ideatovalue.com/wp-content/uploads/2018/03/Max_McKeown.pdf
- Morris, T. (2026). Advice from World's Most Famous Customer Service Representative. World Certification Institute: Global Authority on Occupational Certification. <https://www.worldcertification.org/advice-worlds-famous-customer-service-representative/>
- UN DESA (2015). Sustainable Development Goals. <https://sdgs.un.org/goals>