

Measuring Agricultural Extension Service Quality in Qalyubia Governorate Using SERVQUALEX Scale

Aya E. Fahmy¹; Samia A. Mahrous¹, Heba N. Mohamed¹, Ahmed M. Diab²

ABSTRACT

This research aimed to measure the quality of extension services from the viewpoints of extensionists and farmers in Qalyubia Governorate using SERVQUALEX scale and to investigate the differences between perceptions of the two groups regarding the quality of extension services. The study was conducted on 258 farmers and 30 extensionists in Qalyubia governorate. Data were collected via personal interviews using questionnaire form during the period from February and March 2024. Frequencies, percentages, mean, and t-test were used for data presentation and analysis. Results indicated a revealing comparison between the perceptions of extension specialists and farmers regarding the quality of extension services. While both groups recognize the value of such services, there exists a significant gap in their evaluations. Although 73.3% of extensionists rate the overall quality as high, only 34.1% of farmers agree. Findings also revealed that the overall gap between the actual perception of the extension quality and the maximum score as perceived by the extension personnel (-46.34, -21.55%) is considerable, signifying a substantial discrepancy between the perceived quality and the maximum achievable score. From farmers' perspectives, the overall gap (-82.7, -38.47%) is the most significant, highlighting a severe disparity in the perceived quality of services. Results of T-test indicated the significant difference in perception of the quality of agricultural extension services between extensionists (Mean = 168.66, SD = 21.77) and farmers (Mean = 132.3, SD = 32.56); t-value = 5.95, p = 0.01. To bridge this gap and improve the overall effectiveness of agricultural extension services some actions were recommended.

Keywords: Quality of Extension Services, SERVQUALEX Scale, Extension Specialists, Qalyubia Governorate.

INTRODUCTION AND THEORETICAL FRAMEWORK

The agricultural sector in Egypt plays a crucial role in economic growth, job creation, and reducing food insecurity, adding to his contributing by 11% of the GDP and employing nearly 29% of the workforce (El-Sherbasi, 2023), it is a significant part of the nation's economy. Most farmers in Egypt (61.3%) are smallholders who focus on crops such as rice, wheat, maize, cotton, sugarcane, sugar beet, vegetables, and

livestock production (FAO, 2018). These farmers often practice traditional farming methods with intensive input use and face challenges in enhancing productivity and applying sustainable agricultural principles (Kassem *et al.*, 2021).

The advancement of agricultural production necessitates a shift from traditional farming to innovative techniques aimed at achieving high yields and surplus production to meet community needs (Tahawy, 2020). The success of agricultural development is highly dependent on an effective extension system that boosts agricultural production by replacing traditional methods with appropriate agricultural technologies suited to the specific environmental, cultural, social, and economic conditions.

Agricultural extension serves as a developmental tool for implementing agricultural policies designed to advance the sector and achieve agricultural development. The challenge for development agencies lies in effectively using these policies within a framework of related policies, including scientific research, marketing, agricultural education, credit provision, organizing and mobilizing farmers' efforts, and establishing public facilities and agricultural projects. This integrated approach aims to enhance functional integration through various extension services provided to rural communities (Rashad *et al.*, 2021).

Johns (1999) asserts that the definition of a service varies throughout services industry and might refer to an industry, performance, output, offering, or process. The qualities of services, such as their intangibility, heterogeneity, perishability, and inseparability, provide the foundation for the variations among service businesses. In contrast to product quality, which is objectively tested using characteristics like durability and faults due to its tangible nature, these aspects of service make it very difficult to measure (Parasuraman *et al.*, 1988).

Services are advantages or activities given to a group that do not result in ownership. Services may or may not produce in connection with tangible goods

DOI: 10.21608/asejaiqsae.2024.394858

¹ Department of Rural Sociology and Agricultural Extension, Faculty of Agriculture, Ain Shams University, Cairo, Egypt

² Department of Rural Sociology and Agricultural Extension, Faculty of Agriculture, New Valley University, Kharga, Egypt
Received, October 25, 2024, Accepted November 30, 2024.

(Jain and Gupta, 2004: p 25). According to Grönroos (2001), cited by Strömberg (2007: p 12), the service is an action or sequence of actions that occurs during a customer-service representative contact. The service and the product differ greatly from each other. These distinctions include the fact that services are intangible—they cannot be held, touched, or otherwise handled—that they are produced and consumed concurrently, and that consuming a service entails communication between the producer and the user (Naik *et al.*, 2010: p 234).

There are numerous definitions of what is meant by "quality of service." The one that is often used to define service quality is the extent to which a service meets customers' demands or expectations (Dehghan, 2013: p 197). Customers' subjective assessment of the quality of the service quality offering and its delivery determines perceived service quality, according to most authors who have written about the topic (Korda and Snoj, 2010: p 189 and Sureschandar *et al.*, 2002: p 364).

The marketing discipline provided the motivation for measuring and assessing service quality in the 1980s. Academicians recognized the importance of consumer perceptions of service quality and worked to develop empirical methodologies for evaluating customer perspectives of quality service (Cook and Thompson, 2000). Although there are several scales have been proposed to assess service quality, below are the most relevant scales:

1. SERVQUAL Measure: Parasuraman *et al.* (1988) proposed that service quality can be measured by identifying gaps between customer expectations and perceptions of the service. The SERVQUAL measure includes five main dimensions, encompassing 22 sub-elements, as below: 1) Tangibles "4 items"; 2) Reliability "5 items"; 3) Responsiveness "4 items"; 4) Assurance "4 items"; and 5) Empathy "5 items". SERVQUAL measures service quality by finding the difference between customer perceptions (P) and expectations (E).
2. SERVPERF Measure: Due to the criticisms and disagreements towards the SERVQUAL scale, Cronin and Taylor (1992) developed a performance-based scale to measure service quality, which was named as SERVPERF. The SERVPERF scale is the unweighted perception of SERVQUAL scale, whereby the 22 expectation items of the SERVQUAL scale were excluded. This measure effectively highlights deficiencies in service quality from the beneficiaries' perspective. SERVPERF uses the same evaluation indicators (reliability, responsiveness, assurance, empathy, and tangibles) but simplifies measurement and analysis by ignoring

the expectations component and using only the performance component. The SERVPERF measure consists of 22 elements, with higher performance indicating higher service quality. It measures quality as an attitude rather than satisfaction, linking perceived service quality to satisfaction and subsequently to purchase intentions.

3. Sureshchandar Measure: Sureshchandar *et al.* (2001) developed a measure comprising five main dimensions with 41 subelements to assess service quality from the customers' perspective. These dimensions are: 1) Core Service "5 items"; 2) Human Element in Service Delivery "17 items"; 3) Service Delivery Process (Non-Human Element) "6 items"; 4) Service Appearance "6 items"; 5) Social Responsibility "7 items".
4. Munhurrin Measure: Munhurrin *et al.* (2010) adapted the SERVQUAL measure to assess service quality from the perspective of service organization employees. This measure evaluates service quality by assessing the gap between employees' perceptions of the actual service quality dimensions and their expectations. It consists of 19 sub-elements distributed across five dimensions as follows: 1) Tangibles "3 items"; 2) Reliability "5 sub-elements"; 3) Responsiveness "3 items"; 4) Assurance "4 items"; and 5) Empathy "4 items".
5. SERVQUALEX Scale: Diab (2018) designed a measure specifically for ensuring service quality in agricultural extension. It includes four main dimensions as follows: 1) Tangibles and core of service "9 items"; 2) Human element of extension service delivery "13 items"; 3) Systematization of extension service delivery (non-human element) "10 items"; and 4) Social responsibility of extension system "11 items".

PROBLEM STATEMENT AND OBJECTIVES

To meet the standards of excellence desired by both service providers and recipients, organizations are striving to enhance the quality of their offerings. While there are various methods to improve organizational performance, prioritizing service quality as a strategic initiative is paramount to satisfying customer desires and meeting their needs, wants, and expectations. Consequently, the most critical factor in improving performance in terms of output and services is quality (Abbas, 2005).

All kinds of organizations strive to achieve a desired quality, according to Abari *et al.* (2011). Service organizations have started concentrating on how customers perceive the quality of their services

since it aids in the development of strategies that result in customer satisfaction (Dehghan, 2006), according to Daniel & Berinyuy (2010). According to Singh and Khanduja (2010), measuring is the first step in improving service quality since it enables comparisons between before and after modifications, pinpoints issues linked to quality and establishes precise guidelines for service provision.

Agricultural extension services encompass education, advice, and consultation provided by the agricultural extension organization. These services present a significant challenge for the professional and organizational survival of the governmental extension system in a world inundated with science, technology, information, globalization, competition, and constant change. Agricultural extension work itself is an educational change aimed to improve the quality of life for farmers, their families, and their local communities (Abdel Wahab, 2017).

Also, study of Elhamoly *et al.* (2008) which used Parasurman *et al.* scale (1985) after testing it, showed the scale was validity and reliability for its dimensions (5) and for each item (24). There were high degrees of respondent's perception regarding for how agricultural extension services should be presented by agricultural cooperatives. Also, there were low degrees of respondents' perceptions for actual delivering extension services.

El-Sherbasi (2023) added that measuring service quality is crucial in services' organizations like the agricultural extension organization. These organizations must focus on service quality due to the vital role of agricultural extension in agricultural development, achieving food security, and alleviating rural poverty. The quality of extension services is one of the most important indicators of the overall success of the agricultural extension organization.

To improve and develop the services provided by the agricultural extension system, it is necessary to measure and evaluate the quality of these services based on the opinions and attitudes of the beneficiaries. This approach allows the agricultural extension system to gain the necessary knowledge to redesign and reshape its services to meet the needs and desires of farmers, exceeding their expectations, leading to their satisfaction and continued engagement with extension workers in the long term.

Extension services provided to beneficiaries must be appropriate to their needs and problems and suitable for the economic and social conditions of the application areas. This requires the continuous application of quality extension services provided to farmers. Studies and research in this field have varied in their approach to determining the quality level of extension services for

both extension specialists and farmers. Some studies focused on the availability of material resources and requirements for providing extension services, while others focused on the availability of extension cadres and their activities, such as seminars and meetings, through records of extension centers and administrations. Few studies have compared the perspectives of both groups. This research aimed to:

1. Measure the quality of extension services from the viewpoints of extensionists and farmers in Qalyubia Governorate using SERVQUALEX scale.
2. Investigate differences between extensionists' and farmers' points of view regarding the quality of extension services.

METHODOLOGY

This research used the SERVQUALEX scale (Diab, 2018) to measure the agricultural extension service quality in Qalyubia Governorate. The scale asks respondents to respond according to their perceptions on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Two groups were selected to perform the study: extensionists and farmers. (1) The extensionists group included all 30 extensionists representing seven districts in the Qalyubia Governorate (Benha, Kafr Shukr, Toukh, Qalyub, El Qanater El Khayria, Shebin El Qanater, and Khanka). Of these, 9 work at the governorate level, 14 at the district level, and the remaining 7 at the extension centers level. (2) A sample of 258 farmers was selected from three villages using the Sample Size Calculator based on Cochran's formula. The sample included 38 respondents each from Mit Kenana and Qaha, and 182 respondents from El Manzala. The total number of farmers in these villages is 5,497, 1,157, and 1,148, respectively.

Data were collected via personal interviews using questionnaire form during the period from February and March 2024. Frequencies, percentages, mean and t-test were used for data presentation and analysis.

RESULTS AND DISCUSSION

1. Characteristics of Respondents

As shown in Table (1) distribution of surveyed farmers based on their specified characteristics. The data reveals that the majority of farmers were over 55 years old (51.5%). Additionally, 38% were literate, and 72.1% had another occupation alongside farming. Furthermore, 46.3% from them had 25 to 45 years of experience in agricultural work, 70.2% of the farmers had 5 to 10 years of experience in agricultural work.

Most farmers 91.8% attended extension seminars and training courses (91.8%), and 75% owned livestock.

As shown in Table (2) distribution of extensionists based on their specified characteristics. The data reveals that the majority of surveyed extensionists were under

47 years old (66.6%), had a rural upbringing (70%), had less than 16 years of rural experience (66.6%), and had worked in agricultural extension for less than 14 years (63.6%).

Table 1. Distribution of Farmers According to Their Specified Characteristics

Characteristics	Farmers (n=258)	
	Frequency	%
Age		
Less than 37	24	9.3
From 37 to 54	101	39.1
54 and above	133	51.6
Educational Status		
Illiterate	44	17.1
Literate	99	38.4
Primary School Certificate	14	5.4
Preparatory School Certificate	1	0.4
Secondary Education	79	30.6
University Degree	21	8.1
Profession		
Agricultural Work	72	27.9
Agricultural Work + Other Occupation	186	72.1
Years of experience in agricultural work		
Less than 24	50	19.3
from 24 to 45	119	46.3
45 or more	89	34.4
Number of Family Members Contributing to Agricultural Work		
Less than 4	65	25.2
From 4 to 10	181	70.2
10 and above	12	4.6
Attendance at Extension Seminars and Training Courses		
Yes	237	91.9
No	21	8.1
Livestock Ownership		
Yes	194	75.0
No	64	25.0

Source: Study Sample

Table 2. Distribution of Extensionists According to Their Specified Characteristics

Characteristics	Extensionists (n=30)	
	Frequency	%
Age		
Less than 47	20	66.7
47 and above	10	33.3
Rural Upbringing		
Raised in Rural Areas	21	70.0
Raised in Urban Areas	9	30.0
Rural Experience		
Less than 16 years	20	66.6
From 16 to 30 years	5	16.7
30 years and above	5	16.7
Duration of Work in Agricultural Extension		
Less than 14 years	19	63.6
From 14 to 29 years	7	23.3
29 years and above	4	13.1

Source: Study Sample

2. Quality of Extension Services in Qalyubia governorate from the viewpoint of Extensionists and Farmers using SERVQUALEX Scale

Findings, in Table (3), present a revealing comparison between the perceptions of extension specialists and farmers regarding the quality of extension services. While both groups recognize the value of such services, there exists a significant gap in their evaluations.

1.1. Tangibles and core of extension service

While a large majority of extension specialists (70%) rate the Tangibles and core of services as high, farmers are more evenly distributed across the categories, with the highest percentage (44.1%) still placing it in the high category. This suggests that while specialists are confident in the information and delivery methods, some farmers might perceive them as less effective or relevant to their needs.

1.2. Human element of extension service delivery

The high percentage of extension specialists (83.3%) rating the human element of extension service delivery as high starkly contrasts with the farmer's perception, where only 42.6% agree. This highlights a potential disconnect between the intended approach of the extension services and the actual experience of farmers.

1.3. Systematization of extension service delivery (non-human element)

While 80% of extension specialists rate the Systematization of extension service delivery highly, only 23.2% of farmers agree. This difference points to a significant disconnect between the perceived efficiency and effectiveness of the system from the specialists' and farmers' perspectives.

1.4. Social responsibility of extension system

Here, a significant divergence emerges. While 70% of extension specialists rate the social responsibility of the extension system highly, only 15.5% of farmers share this opinion. This suggests a strong disconnect between the perceived social impact of the extension system and how it translates to practical benefits for farmers.

1.5. Overall extension services quality

Although 73.3% of specialists rate the overall quality as high, only 34.1% of farmers agree. This reinforces the broader theme of a significant disparity between how extension specialists view the services and how farmers experience them.

Table 3. Distribution of respondents according to their perceptions on the quality of extension Services in Qalyubia Governorate

Components of the SERVQUALEX Scale	Extensionists (n=30)		Farmers (n=258)	
	Frequency	%	Frequency	%
Tangibles and core of service				
Low (less than 21)	0	0.0	58	22.5
Medium (22 to 32)	9	30.0	86	33.3
High (33 and above)	21	70.0	114	44.2
Human element of extension service delivery				
Low (less than 21)	0	0.0	59	22.9
Medium (22 to 32)	5	16.7	89	34.5
High (33 and above)	25	83.3	110	42.6
Systematization of extension service delivery				
Low (less than 23)	0	0	72	27.9
Medium (24 to 36)	6	20.0	126	48.8
High (37 and above)	24	80.0	60	23.3
Social responsibility of extension system				
Low (less than 25)	4	13.3	72	27.9
Medium (26 to 39)	5	16.7	146	56.6
High (40 and above)	21	70.0	40	15.5
Overall Quality of Extension Services				
Low (less than 100)	0	0	61	23.6
Medium (101 to 157)	8	26.7	109	42.3
High (158 and above)	22	73.3	88	34.1

Source: Study Sample

3. Differences between extensionists and farmers regarding the quality of extension services

Findings in Tables (4) show the mean scores and gaps for the quality of extension as perceived by the extensionists and farmers, the table also show results of the two-sample t-test that performed to compare the quality of extension services from the viewpoints of the extensionists and farmers. Results are presented below:

2.1. Tangibles and core of extension service

Data in Table (4) revealed that, while the mean percentage of extension quality is relatively high (77.91%), there is a noticeable gap (-9.94%) between the extensionists perceived quality and the maximum achievable score. This suggests a need to improve Tangibles and core of extension service to better meet their own expectations. For farmers, the gap is even wider for farmers (-16.2, -36.00%), indicating a significant discrepancy between their expectations and the perceived quality of services. Farmers perceive services to be less valuable and less relevant than what they expect.

Results in the same table show that there is a significant difference in perception of the quality of agricultural extension services between extensionists (Mean = 35.06, SD = 4.15) and farmers (Mean = 28.8,

SD = 8.02); t-value = 4.19, p = 0.01. This means that the extensionists perceived a higher quality of agricultural extension services regarding the Tangibles and core of extension service provided. This suggests that extensionists may believe their services are structured and relevant, while farmers may find them lacking in these aspects.

2.2. Human element of extension service delivery

As shown in Table (4), the gap perceived by the extensionists here (-12.47, -19.18%) is slightly larger than for the form and content dimension, highlighting that extension specialists feel there is room for improvement in the human element, such as communication, empathy, and responsiveness. According to farmers perceptions, the gap remains large (-23.23, -35.74%), indicating that farmers experience significant dissatisfaction with the human element of service provision. They may feel ignored, disrespected, or treated with insufficient care and understanding.

Findings in the same table indicated that there is a significant difference in perception of the quality of agricultural extension services between extensionists (Mean = 52.53, SD = 4.6) and farmers (Mean = 41.77, SD = 11.07); t-value = 5.26, p = 0.01. Similarly, extensionists rated the human element of service

delivery, including communication and interaction, as significantly higher than farmers. This could indicate a disconnect between the perceived competence and empathy of extensionists and the actual experiences of farmers.

2.3. Systematization of extension service delivery (non-human element)

As shown in Table (4), the gap between the mean score and the maximum score of extension quality as perceived by the extensionists is significant (-10.2, -20.40%), indicating that extension specialists perceive flaws in the systematization of extension service delivery. Issues might arise from poorly coordinated schedules, inefficient communication channels, or difficulties in accessing timely information. At the same time, farmers perceptions gap (-20.02, -40.04%) is even larger, pointing to considerable frustration with the Systematization of extension service delivery. Farmers might experience difficulties scheduling appointments, lack of clear information about services, or inconsistent follow-up, leading to feelings of being left unattended.

Results also revealed that there is a significant difference in perception of the quality of agricultural extension services between extensionists (Mean = 39.8, SD = 5.49) and farmers (Mean = 29.98, SD = 8.56); t -value = 6.12, p = 0.01. Farmers also rated the systematization of extension service delivery significantly lower than extensionists. This suggests a potential gap between the organizational structure, implementation of services and the perceived effectiveness from the farmers' perspective (Table 4).

2.4. Social responsibility of the extension service

The gap of Extensionist perception on the quality of extension was -13.74 score representing -24.98% suggesting that extension specialists recognize a need for the system to be more socially responsible, perhaps by prioritizing vulnerable groups or engaging in sustainable practices. While farmers perceptions' gap is even larger (-23.28, -42.33%), indicating that farmers expect a greater sense of social responsibility from the extension system. They might feel that the system is not adequately addressing their needs or concerns, particularly those related to environmental sustainability or social equity (Table 4).

Regarding t -test, results show that there is a significant difference in perception of the quality of agricultural extension services between extensionists (Mean = 41.26, SD = 8.76) and farmers (Mean = 31.72, SD = 8.11); t -value = 6.04, p = 0.01. The discrepancy in the perception of social responsibility is particularly concerning. Extensionists likely believe their services contribute significantly to societal well-being, while farmers may see less impact or feel their specific needs are not being adequately addressed (Table 4).

2.5. Overall extension services quality

Results in Table (4) revealed that the overall gap between the actual perception of the extension quality and the maximum score as perceived by the extension personnel (-46.34, -21.55%) is considerable, signifying a substantial discrepancy between the perceived quality and the maximum achievable score. This suggests a systemic issue in the delivery of services that needs to be addressed comprehensively. For farmers, the overall gap (-82.7, -38.47%) is the most significant, highlighting a severe disparity in the perceived quality of services. This suggests widespread dissatisfaction among farmers with the overall extension system and highlights the urgent need for improvement.

Data in the same table indicated that there is a significant difference in perception of the quality of agricultural extension services between extensionists (Mean = 168.66, SD = 21.77) and farmers (Mean = 132.3, SD = 32.56); t -value = 5.95, p = 0.01. The results indicate a significant discrepancy in the perception of agricultural extension services quality between extensionists and farmers. Across all assessed aspects, including tangibles and core of extension service, human element, systemization of services, social responsibility, and overall quality, extensionists consistently reported higher quality than farmers. This finding is evidenced by the significant p -values (<0.01) across all comparisons, indicating that the differences observed are unlikely to be due to chance (Table 4).

Table 4. Average values of the quality of Extension Services in Qalyubia Governorate from the viewpoints of extensionists and farmers

Elements of SERVQUALEX Scale	No. of items	Max. Score	Extension specialists						Farmers				t- values
			SD	Mean		Gap (Mean – Max. Score)		SD	Mean		Gap (Mean – Max. Score)		
				Value	%	Value	%		Value	%	Value	%	
Tangibles and core of service	9	45	4.15	35.06	77.91	-9.94	-22.09	8.02	28.8	64.00	-16.2	-36.00	4.19**
Human element of extension service delivery	13	65	4.6	52.53	80.82	-12.47	-19.18	11.0	41.77	64.26	-23.23	-35.74	5.26**
Systematization of extension service delivery (non-human element)	10	50	5.49	39.80	79.60	-10.2	-20.40	8.56	29.89	59.96	-20.02	-40.04	6.12**
Social responsibility of extension system	11	55	8.76	41.26	75.02	-13.74	-24.98	8.11	31.72	57.67	-23.28	-42.33	6.04**
Overall extension services quality	43	215	21.77	168.7	78.45	-46.34	-21.55	32.56	132.3	61.53	-82.7	-38.47	5.95**

Source: Study Sample

Conclusion and Recommendations

The findings of this study reveal a concerning disconnect between the perceptions of extension specialists and farmers regarding the quality of agricultural extension services. While both groups acknowledge the importance of these services, there is a significant and consistent gap in their evaluations across all four dimensions of service quality.

The starkest differences lie in the areas of human element, systematization (non-human element), and social responsibility. Farmers consistently perceive these aspects as significantly lower in quality than extension specialists. This suggests that despite efforts to deliver high-quality services, there is a disconnect between the intended approach and the actual experiences of farmers.

This disconnect raises crucial questions about the effectiveness of the agricultural extension system. It suggests that while extension specialists might be confident in their efforts, the services are not effectively reaching or impacting farmers in a meaningful way.

To bridge this gap and improve the overall effectiveness of agricultural extension services, it is crucial to:

1. **Farmer-centricity:** Services should be designed and delivered with farmers' needs, preferences, and contexts in mind.
2. **Improved communication and accessibility:** Extension workers need to be more accessible, responsive, and skilled in communicating with farmers in a way that is culturally relevant and impactful.

3. **Increased transparency and accountability:** Clearer communication about services, improved organizational procedures, and robust evaluation systems can contribute to building trust and demonstrating accountability.
4. **Investing in human resources and infrastructure:** Addressing the shortage of extension workers, improving training and incentives, and enhancing the infrastructure of extension services are crucial for delivering effective programs.
5. **Strengthen social responsibility:** Efforts to address the unique needs of vulnerable groups, promote sustainable practices, and foster community engagement are crucial to build trust and demonstrate tangible benefits.
6. **Integrating modern technologies:** The use of ICT tools can significantly improve outreach, information dissemination, and service delivery, making services more accessible and relevant to farmers.

REFERENCES

- Abari, A.A.F., M.H. Yarmohamadian and M. Esteki. 2011. Assessment of quality of education in a non – government university via SERVQUAL model. *Procedia Social and Behavioral Science*. 3rd World Conference on Educational Sciences – WCES, 2299 – 2304.
- Abbas, H. 2005. Measuring the quality of university libraries services, an empirical study on the library services of King Abdul Aziz University in Jeddah. *J. King Fahd Nat. Library* 11. (in Arabic), Available at: www.kfnl.org.sa/idarat/kfnl_journal/m11/word/2.doc.

- Abdel Wahab, M.M. 2017. Quality of extension services from the perspective of beneficiaries in north Sinai governorate. Department of Agricultural Economics, Faculty of Agriculture, Moshtohor, Benha University.
- Cook, C. and B. Thompson. 2000. Reliability and validity of SERVQUAL scores used to evaluate perceptions of library service quality. *J. Acad. Librarianship* 26: 248–258.
- Cronin, J. and S.A. Taylor. 1992. Measuring service quality: a reexamination and extension. *J. Mark.* 56: 55-67.
- Daniel, C.N. and L.P. Berinyuy. 2010. Using the servqual model to assess service quality and customer satisfaction: an empirical study of grocery stores in Umea. Master's Thesis, Umea School of Business.
- Dehghan, A. 2006. Relationship between service quality and customer satisfaction. Master Thesis, Lulea University of Technology, Sweden.
- Dehghan, A. 2013. Service quality and loyalty: a review. *Mod. Mech. Sci. Eng.* 1:197-208.
- Diab, A.M. 2018. Designing an index for criteria of the service quality assurance in agricultural extension in Egypt (SERVQUALEX). *Bull. Fac. Agric., Cairo Univ.* 69: 255-264.
- Elhamoly, A.I., M.H. Elgazzar and N. Teruaki. 2008. Quality of the agricultural extension services provided from the agricultural cooperatives in new societies of Kafrelsheikh governorate (From the Rural Leader's points of view). *J. Agric. Res. Faculty of Agric. Kafrelsheikh Univ.* 34: 22-42.
- El-Sherbasi, A.B. 2023. Towards a future vision and effective strategy to achieve the quality of extension services in Egypt. *Assiut J. Agric. Sci. Egypt.*
- Fao (Food and Agriculture Organization of the United Nations: Statistical Database). 2018. at: <http://Faostat.Fao.org/Site/535/default.aspx#ancor>.
- Grönroos, C. 2001. The perceived service quality concept—a mistake? managing service quality. *An Int. J.* 11: 150-152.
- Jain, S. and G. Gupta. 2004. Measuring service quality: SERVQUAL vs. SERVPERF scales. *Vikalpa* 29: 25-37.
- Johns, N. 1999. What is this thing called service?. *Eur. J. Mark.* 33: 958-973.
- Kassem, H.S., B.A. Alotuibi, M. Maddassir and A. Herab. 2021. Factors influencing farmers' satisfaction with the quality of agricultural extension services. *Eval. Program Plann.* 85, 101912.
- Korda, A. and B. Snoj. 2010. Development, validity and reliability of perceived service quality in retail banking and its relationship with perceived value and customer satisfaction. *Manag. Glob. Transit.* 8: 187–205.
- Munhurrun, P., P. Naidoo and S. Bhiwajee. 2010. Measuring service quality: perceptions of employees. *Glob. J. Bus. Res.* 4: 47-58.
- Naik, C., S. Gantasala and G. Prabhakar. 2010. Service quality (Servqual) and its effect on customer satisfaction in retailing. *Eur. J. Soc. Sci.* 16: 231-243.
- Parasuraman, A., V. Zeithaml and L. Berry. 1988. Servqual: a multiple-item scale for measuring customer perceptions of service quality. *J. Retail.* 64: 12-37.
- Parasuraman, A., V.A. Zeithaml and L.L. Berry. 1985. A conceptual model of service quality and its implication for future research. *J. Mark.* 49: 41-50.
- Rashad, S.A., S.H. Jado and R.T. Tahawy. 2021. Differences in opinions of extension workers and farmers regarding the evaluation of extension service delivery in Qalyubia governorate. Benha University, Egypt.
- Singh, R.A.J.D.E.E.P. and D. Khanduja. 2010. SERVQUAL and model of service quality gaps: a framework for determining and prioritizing critical factors from faculty perspective in higher education. *Int. J. Eng. Sci. Tech.* 2.
- Strömngren, O. 2007. Analyzing service quality, a study among Peruvian resort hotels. Master Thesis, Lulea University of Technology, Sweden.
- Sureshchandar, G.S., C. Rajendran and R.N. Anantharaman. 2002. The relationship between service quality and customer satisfaction—a factor specific approach. *J. Serv. Mark.* 16: 363-379.
- Sureshchandar, G.S., C. Rajendran, and T.J. Kamalanabhan. 2001. Customer perceptions of service quality: a critique. *Total Qual. Manag.* 12: 111-124.
- Tahawy, R.T. 2020. Quality of extension services as seen by beneficiaries. Department of Agricultural Economics, Faculty of Agriculture, Moshtohor, Benha University.

الملخص العربي

قياس جودة خدمات الإرشاد الزراعي في محافظة القليوبية باستخدام مقياس SERVQUALEX

أية عيسى فهمي، سامية عبد العظيم محروس، هبة نور الدين محمد، أحمد محمد دياب

كما كشفت النتائج أن الفجوة الإجمالية بين التصور الفعلي لجودة الإرشاد والدرجة القصوى كما يراها موظفوا الإرشاد (-٤٦,٣٤، -٢١,٥٥%) كبيرة، مما يشير إلى وجود تباين كبير بين الجودة المدركة والدرجة القصوى الممكنة. من وجهة نظر المزارعين، الفجوة الإجمالية (-٨٢,٧ - ٣٨,٤٧%) هي الأكثر أهمية، مما يبرز تفاوتًا شديدًا في الجودة المدركة للخدمات.

أظهرت نتائج اختبار t وجود فرق كبير في تصور جودة خدمات الإرشاد الزراعي بين المرشدين (المتوسط = ١٦٨,٦٦، الانحراف المعياري = ٢١,٧٧) والمزارعين (المتوسط = ١٣٢,٣، الانحراف المعياري = ٣٢,٥٦)؛ قيمة $t = 5.95$ ، $p = 0.01$. ولسد هذه الفجوة وتحسين الفعالية الإجمالية لخدمات الإرشاد الزراعي، تم التوصية ببعض الإجراءات.

الكلمات المفتاحية: جودة خدمات الإرشاد، مقياس SERVQUALEX، أخصائين الإرشاد، محافظة القليوبية.

هذا البحث يهدف إلى قياس جودة خدمات الإرشاد الزراعي من وجهة نظر المرشدين والمزارعين في محافظة القليوبية باستخدام مقياس SERVQUALEX، والتحقق في الفروقات بين تصورات المجموعتين بشأن جودة خدمات الإرشاد.

تم إجراء الدراسة على ٢٥٨ مزارعًا و ٣٠ مرشدًا في محافظة القليوبية. تم جمع البيانات من خلال مقابلات شخصية باستخدام استمارة استبيان خلال الفترة من فبراير إلى مارس ٢٠٢٤. تم استخدام التكرارات والنسب المئوية والمتوسط واختبار t لعرض البيانات وتحليلها.

أظهرت النتائج مقارنة كاشفة بين تصورات المتخصصين في الإرشاد والمزارعين بشأن جودة خدمات الإرشاد. في حين أن كلا المجموعتين تعترفان بقيمة هذه الخدمات، إلا أن هناك فجوة كبيرة في تقييماتهم. على الرغم من أن ٧٣,٣% من المرشدين يقيمون الجودة العامة بأنها عالية، إلا أن ٣٤,١% فقط من المزارعين يتفقون معهم.