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The Effectiveness of Digital Corporate Communication in Health Institutions: Which Strategy and Which Model to Ensure Patient Satisfaction? A Case Study of Ahmed Medghari Hospital in Saïda Province

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Abstract:
This descriptive and analytical study sheds light on the uses of digital communication in achieving patient satisfaction through a case study of the Department of Medical and Surgical Emergencies at Ahmed Medghari Hospital in Saïda Province. The study sample included 100 companions of patients to whom questionnaires were distributed. Based on the case study method and after analyzing the results obtained, the study concluded several findings, the most prominent of which are: the significant contribution of digital communication tools and technologies in enhancing the efficiency of communication between medical departments and patients within the department, where the strategy and model adopted by the institution to achieve the desired goals were evident, while also recording some obstacles that could hinder this process, particularly those related to the lack of communication culture and digital literacy in using digital communication tools.

Keywords: *Effectiveness – Digital Corporate Communication – Individual Satisfaction – Service – Strategy – Model*

L'efficacité de la communication numérique d'entreprise dans les établissements de santé : quelle stratégie et quel modèle pour garantir la satisfaction des patients ? Une étude de cas de l'hôpital Ahmed Medghari dans la province de Saïda

Résumé :
Cette étude descriptive et analytique met en lumière les utilisations de la communication numérique pour atteindre la satisfaction des patients à travers une étude de cas du service des urgences médicales et chirurgicales de l'hôpital Ahmed Medghari dans la province de Saïda. L'échantillon de l'étude comprenait 100 accompagnateurs de patients auxquels des questionnaires ont été distribués. Sur la base de la méthode d'étude de cas et après analyse des résultats obtenus, l'étude a abouti à plusieurs conclusions, dont les plus importantes sont les suivantes : la contribution significative des outils et technologies de communication numérique à l'amélioration de l'efficacité de la communication entre les services médicaux et les patients au sein du service, où la stratégie et le modèle adoptés par l'établissement pour atteindre les objectifs souhaités étaient évidents, tout en enregistrant certains obstacles susceptibles d'entraver ce processus, notamment ceux liés au manque de culture de la communication et de compétences numériques dans l'utilisation des outils de communication numérique.

Mots clés : *Efficacité – Communication d'entreprise numérique – Satisfaction individuelle – Service – Stratégie – Modèle*

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Introduction:

Institutional communication is one of the fundamental pillars of modern organizational structures, as it constitutes a key tool for achieving harmony and coordination among the various actors within the institution. It also represents the main means for the flow of information, decision-making, and interaction between the institution and its environment. The importance of institutional communication increases in sensitive institutions such as healthcare institutions, given their strategic role in safeguarding lives, ensuring the quality of care provided, and protecting health data.

In light of the growing digital footprint that has shaped our societal lives, it has become necessary to employ these digital tools methodically and strategically, as they contribute to improving diagnostic accuracy, speeding up response times, enhancing coordination among actors, and rationalizing the use of medical resources. Institutions have therefore found themselves compelled to adapt to the changing digital environment. Numerous experiences have confirmed that digital communication is not merely a technological tool but a strategic transformation that requires the restructuring of relationships within the health system. It represents a socio-technical process that applies digitization techniques to broader social and institutional contexts, making digital technologies a fundamental infrastructure through which the institution seeks to provide more effective, efficient, and humane health services aimed

at achieving individual and collective satisfaction among patients and their companions.

Based on the above, this study aims to shed light on the communication strategy adopted by the Department of Medical and Surgical Emergencies at Ahmed Medghari Hospital in Saïda, which is among the institutions that have adopted digital transformation in the healthcare sector. This is due to its reliance on digital communication technologies. By adopting this approach, the hospital seeks to develop a communication mechanism among various stakeholders — whether between doctors and patients or between different administrative units within the hospital — in order to enhance operational and administrative efficiency, which positively affects the speed of response to emergency cases, diagnostic accuracy, and treatment quality.

However, perspectives often vary, and with the diversity of adopted strategies come different models for satisfying the consumer (in this study, the patient), based on various multi-faceted approaches. Hence arises the research concern that prompted the following central question:

To what extent is the digital communication strategy used in the Department of Medical and Surgical Emergencies at Ahmed Medghari Hospital in Saïda effective in achieving patient satisfaction?

Sub-Questions:

1) How do digital communication tools and systems within the Department of Medical and Surgical Emergencies at Ahmed Medghari Hospital contribute to improving the level of health service delivery?

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2) What is the role of digital communication tools in enhancing the experience of patients and their companions within the department?
3) What challenges and obstacles does the department face in implementing digital communication in its work environment?

Hypotheses:

1) There are very strong and statistically significant correlations (**$p < 0.01$**) between all dimensions of patient companions' experiences and the use of digital communication tools available in the Department of Medical and Surgical Emergencies at Ahmed Medghari Hospital in Saïda.
2) There are statistically significant differences in the assessment of the use of digital communication tools by patient companions upon entering the department, reflecting the various challenges and obstacles encountered when relying on digital communication in the provision of healthcare services.

1. Theoretical Background of the Study:

Several approaches consistent with the nature and purpose of the study were employed, focusing on institutional communication strategies in general and subsequently on models related to customer satisfaction.

1.1. Communication Strategies in Health Services:

Digital communication strategies are central to shaping how institutions interact with their audiences. The spread of digital platforms has created multiple channels that enable

institutions to deliver their messages and engage with their clients. They represent the set of decisions taken to define the major choices in communication, specifying the intended goals and the means used. They are also defined as the overall plan of the institution's or organization's communication policy — a medium- or long-term project that sets objectives and chooses appropriate methods.

Communication strategies are classified according to the targeted communication environment. There is considerable debate about how institutions apply communication strategies, particularly in convincing patients of the quality of care provided, amid challenges mainly related to information security and protection. However, digital health communication strengthens patients' health democracy and empowerment, making them active participants in their care.

As this study focuses on the external public, the strategies employed include the following:

- **Information Strategy:** Providing key audiences with information to help them form opinions and make decisions.
- **Persuasion Strategy:** Combining one-way communication with content that reflects the views of both the organization and the audience, expressing meanings that mirror the perspectives of both sides. This strategy seeks deliberate change in the knowledge, attitudes, and behaviors of a specific audience and requires clear, defined objectives and a mix of persuasive messages.
- **Consensus-Building Strategy:** Combining two-way communication (consensus and commitment) with content that conveys the organization's vision, this

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strategy is used to build strategic relationships between the organization and its external environment or between the organization and its employees.

- **Dialogue Strategy:** This strategy requires communicative messages from the parties involved in dialogue and is usually directed toward an active and aware audience. The theoretical foundation of the dialogue strategy lies in negotiation and interpersonal communication theories.

1.2. Customer or Consumer Satisfaction Models:

The most widely used models in research and studies are:

1.2.1. SERVQUAL Model:

Derived from *SERvice / QUALity*, it was first applied in the hospitality industry and later extended to many fields. Developed by *Parasuraman, Zeithaml, & Berry* (1988), the model comprises 22 items designed to measure consumers' perceptions of service quality. These can be summarized into five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Service quality can thus be measured by identifying the gaps between customers' expectations and their perceptions of actual service performance.

1.2.2. SERVPERF Model:

Derived from *SERvice / PERFormance*, this model was proposed by *Cronin* and *Taylor* (1992). It links quality and performance, suggesting that an individual's perception of service quality depends solely on performance.

1.2.3. KANO Model:

Developed by *Noriaki Kano* and colleagues (1994), this model identifies characteristics that contribute most to customer satisfaction and distinguishes three types of service or product requirements affecting satisfaction:

- **Basic requirements:** Assumed and taken for granted.
- **One-dimensional requirements:** Explicitly expressed and expected by each individual.
- **Attractive requirements:** Not explicitly stated nor expected by the client.

2. Research Method and Tools:

The case study method allows for an in-depth analysis of the reality of the Department of Medical and Surgical Emergencies at Ahmed Medghari Hospital in Saïda. It provides a framework for understanding how digital tools are used in daily workflows and for observing their impact on performance effectiveness and service quality, thereby enabling the derivation of conclusions applicable to health institutions with similar characteristics.

2.1. Study Tools:

A set of appropriate research tools was relied upon, allowing for accurate and objective data collection consistent with the nature of the study and its scientific objectives. Among them:

2.1.1. Participant Observation:

We stayed in the department during the period extending from May to July 2025.

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2.1.2. Questionnaire:

The questionnaire tool was used and designed according to the axes of the study's topic related to the uses of digital communication in improving the quality of health services. This form was directed to the companions of patients in the medical and surgical emergency department at Ahmed Medghri Hospital in Saïda, in order to observe their opinions and experiences regarding the effectiveness of digital tools in improving the provided health services, and it was distributed accordingly.

3. Study Sample:

The studied sample included 100 individuals among the companions of patients, to whom the questionnaire form was distributed at the level of the medical and surgical emergency department at Ahmed Medghri Hospital in Saïda.

4. Presentation and Analysis of Results:

We will rely on a combination of the deductive and inductive methods by following descriptive and statistical approaches based on the analysis of the form using the program "SPSS V25."

4.1. Statistical Tools and Methods:

4.1.1. Study Tool Reliability (Cronbach's Alpha):

- **Calculating Cronbach's Alpha Coefficient:**

The Alpha reliability coefficient attributed to the scholar Cronbach is one of the most important methods of measuring internal consistency. It takes values ranging between zero and one; the closer the coefficient value is to

one, the higher the reliability, and the closer it is to zero, the lower the reliability.

Table (01): Cronbach's Alpha Coefficient for Study Variables

Reliability Statistics	Cronbach's Alpha	Number of Items
	0.983	14

Source: Prepared by the two researchers based on SPSS.V.25 output.

Comment:

The results of internal validity analysis for the questionnaire using Cronbach's Alpha coefficient showed that the reliability value reached (0.983), which indicates a high degree of internal consistency among the scale's items. According to scientific standards, a value exceeding (0.90) indicates very high reliability, meaning that the tool used to measure variables is highly reliable and valid for use in the field study. This high level of reliability indicates that the 14 items measure the same dimension or phenomenon with a high degree of homogeneity, which enhances the validity of the subsequent statistical analysis results.

Table (02): Reliability Statistics

Reliability Statistics		Value	Number of Items
Cronbach's Alpha	Part 1	0.972	7a
	Part 2	0.959	7b
Total number of items			14

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Reliability Statistics		**Value**	**Number of Items**
Correlation between subdimensions		0.985	
Equal length		0.993	
Unequal length		0.993	
Guttman coefficient		0.991	

Source: Prepared by the two researchers based on SPSS.V.25 output.

2/- Correlation Coefficient (Split-Half Method):

Table (03): Reliability Coefficient (Split-Half Method)

Correlation Coefficient Before Correction	**Corrected Coefficient (Spearman–Brown Formula)**	**N**
0.9850	0.9930	14

Source: Prepared by the two researchers based on SPSS.V.25 output.

Comment:

The statistical data indicate a very high level of internal reliability for the tool used in the study, as shown by the Cronbach's Alpha values of 0.972 for the first part and 0.959 for the second, reflecting strong homogeneity among items in each part. The total number of items was 14, distributed across two parts with close numbers. The high correlation value between the two parts (0.985) reinforces this consistency, indicating that the two parts measure the same dimension or psychological construct in a correlated way. Moreover, the Spearman–Brown coefficient (0.993) and the

Guttman coefficient (0.991) both indicate a very high level of reliability, whether the lengths of the two parts are equal or not. Overall, these indicators reflect that the tool used is characterized by a high degree of internal consistency, making its results reliable for use in statistical analysis and research conclusions.

4.1.2. Internal Consistency Validity:

Table (03): Reliability Coefficient (Split-Half Method)

Correlation Coefficient Before Correction	Corrected Coefficient Using the Spearman-Brown Formula	N
0.9850	0.9930	14

Axis One: The use of digital means to record patient data upon arrival at the health institution

01. The use of digital communication means inside the health institution such as smartphone applications and interactive screens helped in understanding and facilitating examination and treatment steps. → 0.911**
02. The use of digital communication helped organize patient movement and reduce congestion inside the institution. → 0.959**
03. Digital tools helped you communicate more easily with doctors and nurses. → 0.987**
04. Digital communication means focus on improving patient companions' understanding of the patient's condition and treatment plan. → 0.975**

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Axis Two: Companions' experience with digital communication tools

05. Did you feel that digital communication means improved your ability to follow patients' conditions during treatment stages? → 0.965**

06. The digital means within the department helped you follow the patient's condition more easily and quickly. → 0.968**

07. Did digital communication means facilitate communication between different departments in the institution for you as the patient's companion? → 0.978**

08. Digital communication tools helped you reduce the burden of moving between different departments within the health institution. → 0.943**

09. Do you consider digital communication means within the department more effective in providing information compared to traditional communication? → 0.898**

Axis Three: Challenges and obstacles for patient companions in using digital communication

10. Did you feel it was difficult to use digital communication means such as screens or applications inside the institution? → 0.925**

11. Did you face problems accessing your patient's information through digital means within the department? → 0.973**

12. Were digital communication means available to all companions without technical or organizational constraints? → 0.959**

13. Using digital communication means did not save more time due to network malfunctions. → 0.919**

14. Do you think there is a need to improve some technical aspects of the digital tools used in the department, such as

Comment:

The results of the Pearson correlation coefficients indicate very strong and statistically significant positive relationships between all variables related to "the use of digital communication means within health institutions." The correlation values ranged between 0.790 and 0.987, all at a high significance level of 0.01. The highest correlation appeared between "the use of digital means for recording patients' data" and "facilitating communication with doctors and nurses," with a value of 0.987, indicating that digitization directly contributes to improving interaction between patients and healthcare workers. Likewise, the strong correlation between "organizing patient movement" and "facilitating communication" (0.956) confirms the role of digital communication in reducing congestion and enhancing workflow. The high correlation between various axes, such as improving understanding and treatment plans by patient companions (0.942 and 0.975), reflects the effectiveness of digital technology in enhancing patient and family experience within the institution.

In general, these results demonstrate the integration of digital communication components in improving healthcare

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quality, supporting the digital transformation trends in this sector.

The results of the Pearson correlation coefficients also reveal statistically significant and very strong relationships between all variables related to companions' experience with digital communication tools within the health institution. All values recorded very high levels, most notably the relationship between "companions' experience with digital communication tools" and "facilitating communication between different departments," which reached 0.978 — indicating that digital tools play an important role in enhancing informational flow within the institution. The results also showed that these tools significantly contributed to improving companions' ability to monitor patients' conditions (0.965), reducing movement burdens between departments (0.943), and providing information more effectively compared to traditional communication (0.898).

These high correlations reinforce the conviction that reliance on digital communication is not limited to improving patient services only but also extends to facilitating the tasks of companions and increasing their satisfaction with the services provided. The high statistical significance at the 0.01 level supports the reliability of these results and confirms the effectiveness of digital transformation in the health sector from the perspective of the direct users of these means.

The results of the correlation coefficients indicate the presence of strong and statistically significant relationships between the various aspects of the challenges faced by patient companions in using digital communication tools within the health institution. Most of the Pearson coefficients

recorded high values, such as the relationship between "challenges and obstacles in using digital communication" and "problems accessing patient information," which reached 0.973, indicating that technical or organizational difficulties constitute one of the main obstacles hindering the companions' benefit from these tools. There is also a very strong correlation (0.959) between the perception of general obstacles and the unavailability of digital means for all companions without restrictions.

Likewise, the relationship between the feeling of difficulty in using digital applications and screens and the rest of the variables ranged between 0.846 and 0.861, which reflects that digital illiteracy or weak infrastructure negatively affects the user experience. It is also noteworthy that problems related to network failures have a correlation value of 0.919 with general challenges, highlighting the need to improve technological infrastructure.

In general, these results indicate that the presence of technical or organizational obstacles, such as difficulty of use or network failures, is closely linked to the decline in the effectiveness of digital means in achieving their objectives, especially from the perspective of the patient companion, which calls for considering more comprehensive technological and training solutions.

4.2. Trends in the sample responses:

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Table (04): Shows the trends of respondents' answers to the study items

No.	Statements	Mean	Standard Deviation
Axis 1: Digital means were used to record the patient's data upon arrival at the health institution			
01	The use of digital communication tools within the health institution, such as smartphone applications and interactive screens, helped in understanding and facilitating examination and treatment steps	4.49	0.810
02	The use of digital communication helped organize the movement of patients and reduce overcrowding	4.06	1.153

No.	Statements	Mean	Standard Deviation
	within the institution		
03	Digital tools helped you facilitate communication with doctors and nurses	3.98	1.302
04	Digital communication means contribute to improving the companions' understanding of the patient's condition and treatment plan	3.68	1.377
Axis 2: Companions' experience with digital communication tools			
05	Did you feel that digital communication tools improved your ability to follow up on patients' condition	3.24	1.531

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No.	Statements	Mean	Standard Deviation
	during treatment stages?		
06	Digital means within the department helped you follow the patient's condition more easily and quickly	3.52	1.520
07	Did digital communication tools facilitate communication between the various departments for you as the patient's companion?	3.50	1.403
08	Digital communication tools helped you reduce the burden of moving between different departments within the health institution	4.15	1.104
09	Do you consider	4.41	0.943

No.	Statements	Mean	Standard Deviation
	digital communication tools within the department more effective in providing information compared to traditional communication?		
Axis 3: Challenges and obstacles for patient companions using digital communication			
10	Did you feel any difficulty using digital communication tools such as screens or applications within the institution?	4.45	0.821
11	Did you encounter problems accessing your patient's information	3.86	1.370

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No.	Statements	Mean	Standard Deviation
	through digital means in the department?		
12	Were digital communication tools available to all companions without technical or organizational problems or restrictions?	3.61	1.455
13	The use of digital communication tools did not save more time due to network failures	4.48	1.019
14	Do you think there is a need to improve some technical aspects of the digital tools used in the department, such as speed or compatibility with different devices?	4.31	0.464
General trend		**3.97**	**1.146**

Source: Prepared by the two researchers based on SPSS.V.25 outputs.

Comment:

Descriptive statistics show that the overall mean regarding the use of digital communication tools in the health institution is **3.97**, with a standard deviation of **1.15**, indicating a relatively positive evaluation by the participants, though with some variation in opinions. The data highlight that participants gave a high rating to the use of digital communication tools in facilitating understanding and easing examination and treatment steps, with a mean of **4.49** and a relatively low standard deviation (0.81), indicating broad agreement on the effectiveness of these tools in this aspect. High values were also noted for the effectiveness of digital means in reducing mobility burdens within the institution (4.15) and providing more effective information compared to traditional communication (4.41).

On the other hand, some items related to the companions' experience with digital tools, such as following patients' conditions and facilitating inter-departmental communication, showed moderate ratings (between 3.24 and 3.76), which may indicate some difficulties or reservations in these aspects.

As for challenges and obstacles, the difficulty of using digital tools such as screens or applications scored high (4.45), as did network-related failures (4.48), indicating that technical problems are a significant obstacle in the use of these tools.

In general, these results indicate that digital communication tools receive a positive evaluation regarding their benefits, but face technical challenges that affect their

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experience, which calls for improving infrastructure and supporting users to ensure maximum benefit.

Table (05): Shows the relationship between *the use of digital communication tools within the health institution, such as smartphone applications and interactive screens, to understand and facilitate examination and treatment steps* and *the ease of digital communication between different departments in the institution for the patient companion.*

Have you used digital communication tools within the health institution, such as the ward for you as a patient companion?	
smartphone applications and interactive screens, to understand and facilitate examination and treatment procedures?	
Has digital communication facilitated communication between different departments in	

Count	Has digital communication facilitated communication between different departments in the ward for you as a patient companion?	Total
	Strongly Disagree	Disagree
Have you used digital communication tools within the health institution, such as smartphone applications and interactive screens, to understand and facilitate examination and treatment procedures		
Disagree	6	0
Neutral	2	0
Agree	3	20
Strongly Agree	0	0
Total	**11**	**20**

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Chi-Square Tests

Test	Value	Df
Pearson Chi-Square	155.133[a]	12
Likelihood Ratio	146.077	12
Linear-by-Linear Association	71.246	1
N of Cases	100	

Source: Prepared by the two researchers based on SPSS.V.25 outputs.

Comment:

It was observed that the majority of individuals who strongly agreed that digital tools helped understanding also strongly agreed that they facilitated communication between departments (32 out of 63).

The distribution shows a clear pattern of a positive relationship between the perception of the effectiveness of digital tools and their usefulness in improving communication.

The Chi-square test showed a statistically significant relationship between the use of digital tools within the health institution to understand and facilitate treatment and the ease of communication between different departments. This indicates that the use of these tools not only facilitates medical procedures but also contributes to improving the organizational and communicative structure within the health department.

Table (07): Shows the relationship between *feeling that digital communication tools have improved your ability to follow up on*

patients during treatment stages and *the use of digital communication tools did not save more time due to network failures.*

Did you feel that digital communication tools improved your ability to monitor patients' conditions during the stages of treatment?

The use of digital communication tools did not save more time due to network malfunctions.

The use of digital communication tools did not save more time due to network malfunctions	**Total**
Strongly disagree	Disagree
Did you feel that digital communication tools improved your ability to monitor patients' conditions during the stages of treatment	
Strongly disagree	3
Disagree	0
Neutral	0
Agree	0
Strongly agree	0
Total	3

Chi-Square Tests	**Value**	**Df**
Pearson Chi-Square	97.176[a]	12
Likelihood Ratio	109.607	12
Linear-by-Linear Association	48.722	1
Number of Cases	100	

Source: Prepared by the two researchers based on the outputs of the (SPSS.V.25) program.

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Comment:

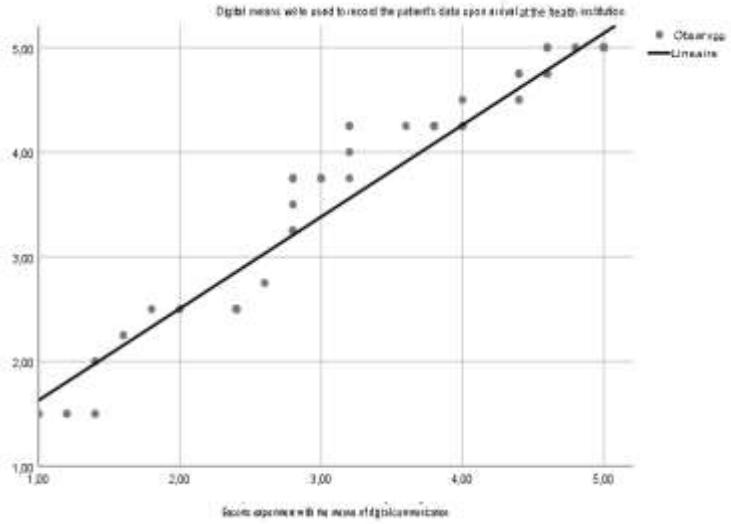
- The distribution of responses shows a clear relationship between dissatisfaction with the effectiveness of digital tools in follow-up and the belief that technical failures affected their usefulness.
- For example:
    - Among those who "strongly agreed" that the tools did not save more time, 30 also strongly agreed that they improved their ability to follow up.
    - Conversely, among those who "strongly disagreed" with the effectiveness of the tools in follow-up, there was a significant number (21) who were dissatisfied, with varying distribution according to failures.
- All values are statistically significant at the 0.05 level, indicating a strong and significant relationship between the two variables.
- This indicates that the presence of technical malfunctions in digital communication tools had a clear effect on the companion's perception of the effectiveness of these tools in monitoring patients' conditions.

Table (08): Simple Regression Test

Dependent variable: *Digital tools were used to record the patient's data upon arrival at the health institution.*

Equation Model Summary Parameter Estimates		
Linear	$R^2 = 0.950$	F = 1849.596

Independent variable: *Companions' experience with digital communication tools.*
Source: Prepared by the two researchers based on SPSS.V.25 outputs.



Comment:
1/- Coefficient of determination $R^2 = 0.950$

- This means that 95% of the variance in the use of digital tools when receiving patients can be explained by the companions' experience with digital tools.
- This indicates the strength of the model and its high explanatory power.

2/- Value of F = 1849.596 with statistical significance p = 0.000

- This indicates that the overall model is statistically significant, meaning that the relationship between the

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two variables is not random but reliable. There is a strong, positive, and statistically significant relationship between companions' experience with digital tools and the use of those tools when recording patient data.
This confirms the importance of improving companions' experience to facilitate and enhance the use of digital technology within healthcare institutions.

Study Findings and Hypothesis Testing:
The results showed that the overall mean of all items reached 3.97, indicating a relatively high level of use of digital communication tools by patient companions within the healthcare institution.

Second: Descriptive Analysis Results:
The highest mean was recorded for the statement:
"I used digital communication tools within the institution such as smartphone applications and interactive screens," with a mean = 4.49.
The lowest mean was recorded for the statement:
"Did you feel that digital communication tools improved your ability to follow up on patients' conditions during treatment stages," with a mean = 3.24.
Third: Correlation Test Results:
There are very strong and statistically significant correlations ($p < 0.01$) between all dimensions of companions' experience with digital tools:
The strongest correlation was between:

"Companions' experience with digital tools" and "Ease of following the patient's condition" (r = 0.978).
The lowest correlation, though still strong, was between:
"Companion's experience" and "Effectiveness of digital information compared to traditional communication" (r = 0.898).
The challenge dimensions also showed strong correlations among themselves:
The strongest correlation was between:
"Existence of problems in accessing information" and "Overall obstacles" (r = 0.973).

Fifth: Paired Sample Test:
There is a statistically significant difference between the evaluation of digital tools use for data recording upon admission and the average companion experience ($t = 9.823$, $p < 0.001$), in favor of using digital tools during data recording.

General Results:
After field observation and based on the results of the questionnaire analysis directed to patient companions, the study concluded the following results:

- The adoption of digital systems, especially electronic medical records and files, contributed to improving the accuracy of recording and continuously updating medical data, which enhanced the reliability of diagnosis and treatment, thereby raising the level of dependability as one of the quality standards of healthcare services within the department.
- The digital triage system contributed to improving the responsiveness of emergency medical and

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surgical cases, which helped reduce waiting times and enhance the speed of meeting patients' needs, thereby strengthening the responsiveness criterion in the quality of healthcare services within the department.

- The medical and surgical emergency department relies on advanced digital devices such as computers and digital screens, which enhance the quality of the healthcare environment and keep pace with technological progress. This contributes to achieving the *tangibility* criterion, which is one of the indicators of healthcare service quality, by improving the patient experience and raising performance levels within the department.
- The medical and surgical emergency department at Ahmed Medghri Hospital uses telemedicine technology in the field of general surgery, enhancing the *responsiveness* criterion of healthcare service quality by accelerating the provision of medical consultations and efficiently meeting patients' needs.
- The use of digital communication within the medical and surgical emergency department plays a positive role in improving communication between the healthcare staff and patients during the stages of examination and diagnosis, contributing to achieving the *empathy* criterion in healthcare quality. However, limiting this use to the department only reduced the continuity of its positive impact beyond the medical visit context.
- The lack of training and qualification constitutes a major obstacle for the medical and administrative

staff in the medical and surgical emergency department when introducing new digital technologies.

- The medical and surgical emergency department at Ahmed Medghri Hospital in Saïda faces infrastructure challenges, such as system downtime or slowness during operation, due to the hospital's digital system still being in the experimental stage. This hinders the full utilization of digital communication to improve healthcare service quality.
- The weak digital literacy of individuals in society is one of the main challenges hindering the use of digital communication within the medical and surgical emergency department, reducing the efficiency of using these technologies to improve healthcare quality.
- The study results confirm the compatibility of the "SERVPERF" model, as it is based on evaluating the actual performance of the service. This model is an appropriate tool for measuring the effectiveness of implementing digital communication technologies within the medical and surgical emergency department, particularly regarding performance efficiency, service speed, and accuracy of coordination between medical teams. It has been confirmed that patient companions are satisfied with the quality of performance within the emergency department and that their medical and administrative needs are met through the use of digital communication technologies.
- The *consensus-building strategy* is one of the most commonly adopted communication strategies within

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the medical and surgical emergency department, especially when employing telemedicine technology. It contributes to enhancing coordination among healthcare actors, facilitating joint decision-making, and exchanging data through digital media, which supports service effectiveness and quality, followed by the *information strategy*.

Conclusion:

The study revealed several important results, including the role of electronic health record systems in enhancing the accuracy of medical data, the impact of digital triage and telemedicine in accelerating emergency response, and the effect of digital communication in improving interaction between medical staff and patients and enhancing coordination between different departments. All of this strengthens the implementation of the *consensus-building strategy* within the medical and surgical emergency department, especially when using telemedicine technology, as it contributes to improving coordination among healthcare actors, facilitating joint decision-making, and exchanging data through digital platforms. However, there are still technical and cultural challenges facing the effective use of digital communication within the department, such as weak digital literacy and lack of training, which limit the full benefit of these technologies in improving healthcare service quality and achieving optimal patient satisfaction.

Recommendations and Suggestions:

1. Work on acquiring the latest software and advanced digital equipment that effectively helps address the technical challenges associated with system downtime or slowness within the department, to enhance performance stability and ensure the continuity of efficient healthcare service delivery.
2. Integrate the digital system for patient admission (Patient System) used at the patient reception desk with the electronic medical record system used in the department and across the hospital in general, to enhance the integration of medical information and improve data flow between departments, thereby contributing to higher efficiency and quality of healthcare services.
3. It is necessary to enhance digital awareness within the institution by organizing awareness campaigns aimed at patients and their companions, to raise their understanding of the importance and role of digital tools in improving healthcare service quality, enabling them to interact effectively with digital technologies and benefit fully from them within the framework of provided healthcare.
4. Strive to develop and enhance interaction within digital platforms, especially the electronic appointment system, which suffers from weak interaction between doctors and patients. This requires adopting innovative mechanisms and strategies that contribute to improving communication quality, thereby increasing the platform's efficiency and enhancing user experience.

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References List:

1. Awaj Samia, *Communication in the Institution: Concepts, Determinants, Strategies*, Academic Book Center, Amman, Jordan, 1st ed., 2019, pp. 230–231.
2. Ahmed Farouk Radwan, *Health Communication in Times of Danger*, The Arab Journal for Media and Communication Research, Issue 31, University of Sharjah, October–December 2020, p. 06.
3. Ali Farjani, *Public Relations and Communication Strategies*, Amjad Publishing and Distribution House, Amman, Jordan, 1st ed., 2018, pp. 117–118.
4. World Health Organization, *Global Strategy on Digital Health 2020–2025*, ISBN 978-92-4-002092-4 (electronic version).
5. Benoit Cordelier Ithurbide & Olivier Galibert, *Digital Health Communications, Technological Prospects and Social Applications Set*, Volume 5, Wiley, 2021.
6. Elmar Sauerwein, Franz Bailom, Kurt Matzler, Hans H. Hinterhuber, *The KANO Model: How to Delight Your Customers*, Preprints Volume I of the IX International Working Seminar on Production Economics, Innsbruck/Igls/Austria, February 19–23, 1996, pp. 313–327.
7. Jana Brockhaus, Alexander Buhmann & Ansgar Zerfass, *Digitalization in Corporate Communications: Understanding the Emergence and Consequences of CommTech and Digital Infrastructure*, *Corporate Communications: An International Journal*, July 2022, https://doi.org/10.1108/CCIJ-03-2022-0035.

8. Jane E. Thompson, *Leveraging Digital Communication Strategies for Organizational Success*, *Journal of Organizational Culture, Communications and Conflict*, Volume 28, Special Issue 2, 2024.
9. Joseph J. Cronin & Steve Taylor, *Measuring Service Quality – A Reexamination and Extension*, *Journal of Marketing*, July 1992, 56:55–68, DOI:10.2307/1252296, pp. 55–56, 68.
10. Maria Luiza Souca, *SERVQUAL – Thirty Years of Research on Service Quality with Implications for Customer Satisfaction*, in I. Plăiaş (Ed.), R. Ciornea (Ed.), *International Conference "Marketing from Information to Decision"*, 4th Edition (ISSN 2067-0338), pp. 420–429.
11. Mark Badham & Vilma Luoma-aho, *Chapter 1: Introduction to the Handbook on Digital Corporate Communication*, *Business 2023*, Published: 18 May 2023, DOI: https://doi.org/10.4337/9781802201963.00009.
12. Martinus Nahak, *The Role of Strategic Consensus in Improving Organizational Performance*, *International Journal of Research*, Vol. 9, Issue 06, June 2022.
13. Philomena Effiong Umoren & Abigail Prince Ukpe, *Digital Communication in Organizations: Trends, Strengths, and Weaknesses*, *Direct Research Journal of Management and Strategic Studies*, Vol. 6, 2025, ISSN: 2787-009X, June 2025.
14. Tilson, D., Lyytinen, K., & Sorensen, C. (2010). *Digital Infrastructures: The Missing IS Research Agenda*, *Information Systems Research*, Vol. 21, No. 4, pp. 748–759.