

**THE INFLUENCE OF INTERNAL COMMUNICATION
WITHIN ORGANIZATIONAL DIVISIONS ON CRISIS
PREPAREDNESS IN IT COMPANIES IN EGYPT**

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الملخص:

البحث يهدف إلى المساهمة في الأدب الحالي حول العلاقة بين التواصل الداخلي واستعداد المؤسسة للأزمات. من خلال استكشاف دور التواصل الداخلي في أبعاد استعداد الأزمات، يناقش الدراسة إطاراً لاستعداد الأزمات التنظيمية. يمكن هذا الإطار المؤسسات من التعامل بفعالية مع الأحداث الأزماتية، وتعزيز التعلم التنظيمي، وتحسين الأداء العام في سبيل تحقيق الأهداف الاستراتيجية.

استناداً إلى البيانات التي تم جمعها من ٢٨٧ مُجيباً يعملون في شركات تكنولوجيا المعلومات في مصر، تشير نتائج البحث إلى أن الاستجابات السريعة للمؤسسة، وفهم الوضع، وخطط إدارة الأزمات المبنية بشكل جيد تتأثر بالتواصل الداخلي بين الأقسام المختلفة في المؤسسة. وبالتالي، يعزز هذا التواصل الداخلي استعداد المؤسسة للتعامل مع الأزمات. بالإضافة إلى ذلك، يسهم إدارة التواصل الفعال في الحصول على رؤية شاملة للأحداث الأزماتية، مما يمنع الأضرار الأمنية.

يؤكد البحث أيضًا على أهمية مديري إدارة الأزمات الذين يلعبون دورًا رئيسيًا في وضع خطط الأزمات الاستراتيجية وتطوير الأدوات للتعامل مع الأزمات. توحى النتائج بأنه يمكن للمديرين الترويج بنشاط لأدوات التواصل الداخلي والتقنيات والمفاهيم عبر الأقسام المختلفة لتعزيز استعداد الأزمات.

الكلمات الرئيسية: الاتصال الداخلي، إدارة الاتصالات، إدارة الأزمات، التأهب للأزمات، التخطيط الاستراتيجي، الأهداف الاستراتيجية، قطاع تكنولوجيا المعلومات

Abstract

The research aims to contribute to the existing body of literature concerning the relationship between internal communication and an organizational crisis preparedness. By examining the role of internal communication in various dimensions of crisis preparedness, the study discusses an organizational crisis preparedness framework. This framework enables organizations to effectively face crisis events, enhance organizational learning, and improve overall performance in seek of strategic goals.

Based on data collected from 287 respondents working in information technology companies in Egypt, the research findings indicate that quick organizational responses, situational understanding, and well-constructed crisis management plans are influenced by internal communication among different organizational divisions. Consequently, this internal communication enhances an organization's preparedness to handle crises. Additionally, effective communication

management contributes to a comprehensive understanding of crisis events, thus preventing security damages.

The research also emphasizes the importance of crisis management managers who play a key role in developing strategic crisis plans and tools to address crisis events. The findings suggest that managers could actively promote internal communication tools, techniques, and concepts across different divisions to enhance crisis preparedness.

Keywords: Internal communication, Communication management, Crisis management, Crisis preparedness, Strategic planning, Strategic goals, Information technology sector.

Introduction

In Egypt, internal communication within organizational divisions is essential for crisis preparedness, significantly influencing an organization's ability to anticipate, respond to, and recover from crises, as argued by Men and Bowen (2017). A crisis involves unforeseen events that threaten strategic objectives, requiring quick responses. While not all crises can be predicted, identifying potential threats enables proactive measures for crisis preparedness (Bundy et al., 2017).

Crisis management, or business continuity management, has gained increased attention, with extensive research into effective plans and strategies (Bharadwaj et al., 2013). However, beyond technical plans, organizations need a crisis-prepared

mindset and communication protocols to manage essential information during crises (Ruck and Welch, 2012). A culture supporting crisis preparedness is important for successful management.

Internal communication involves the exchange of information within an organization through various channels. Effective internal communication enhances crisis preparedness by aligning divisions, facilitating information sharing, and building trust as argued by Argenti (2002). Trust in internal communication also extends to external stakeholders, impacting their perception of the organization during crises as discussed by Goodman and Hirsch (2010). Additionally, effective internal communication encourages learning, adaptation, creativity, and innovation, aiding in crisis resolution and future preparedness (Garnett, Marlowe and Pandey, 2008). It also plays a role in crisis simulation and preparedness, testing crisis plans and evaluating organizational readiness.

This research explores the influence of internal communication within organizational divisions on crisis preparedness in IT companies in Egypt. The dynamic and rapidly changing IT sector necessitates continuous updates, fast-moving strategies, and proactive planning. By examining communication strategies and practices within IT organizational divisions, the research aims to highlight the significance of effective

communication in enhancing crisis preparedness and management capabilities.

Research aim and objectives

This research explores the role of internal communication in enhancing organizational crisis preparedness. It aims to improve organizations' ability to respond to crises, plan for them, and empower management to make timely, sound decisions. The study offers practical insights for managers and executives on leveraging knowledge exchange to support critical decision-making, enhancing responsiveness to challenges.

Focusing on IT companies in Egypt, the research examines how internal communication impacts crisis preparedness and decision-making. Ultimately, it aims to provide valuable insights for organizations to improve their crisis management through better communication strategies, ensuring they are more prepared and responsive during crises.

Statement of the problem

Effective internal communication is essential for organizations, ensuring smooth information flow and coordinated actions during crises. This is particularly important for IT companies facing issues like data breaches or system failures, which require immediate responses (Welch and Jackson, 2007)

In rapidly developing markets like Egypt, IT organizations face unique communication challenges due to the fast pace of

technological change and complex infrastructure (Bharadwaj et al., 2013). Significant disruptions, such as the 2016 cyber-attacks on Egyptian banks, highlight the need for robust internal communication protocols (ITIDA, 2017). Surveys show that 65% of IT professionals in Egypt feel unprepared for crises due to inadequate communication strategies (MCIT, 2019).

This research investigates the impact of internal communication on crisis preparedness in Egyptian IT companies. Findings will offer insights and recommendations for enhancing crisis management. Studies indicate that poor internal communication hinders recovery, while advanced practices improve crisis management by 30% as highlighted by Coombs (2014).

Many researchers have studied the influence of internal communication within organizational divisions on crisis preparedness. However, these studies revealed some research gaps:

- There is a lack of research on the influence of internal communication with organizational divisions on crisis preparedness in Egypt.
- There is a lack of research on crisis preparedness in the IT sector in Egypt.

Research questions

The research is attempting to explore the problem by answering the following research questions:

Major question:

Q1: What is the impact of internal communication within organization divisions on crisis preparedness in IT companies in Egypt.

Minor questions:

Q1: What is the impact of internal communication within organization divisions on the organization's responsiveness capability.

Q2: What is the impact of internal communication within organization divisions on managers' availability of critical information.

Q3: What is the impact of internal communication within organization divisions on managers' access to crisis management resources.

Q4: What is the impact of internal communication within organization divisions on Adequacy of strategic crisis planning.

Literature review

Crisis Management

The term "crisis" in management literature refers to unforeseen risks or events potentially damaging an organization's strategic objectives, requiring quick and unfamiliar responses. While it is challenging to foresee all crises, some threats can be predicted, allowing for proactive measures as argued by Coombs (2014). Comprehensive training, awareness promotion, and

contingency plans are crucial for better crisis preparedness (Bundy et al., 2017).

Human factors, particularly greed, play a significant role in many organizational crises. Crisis management (CM), also known as business continuity management, has gained importance, with extensive research on crisis plans, models, and theories (Bharadwaj et al., 2013). CM involves continuously designed techniques for identifying, analyzing, and addressing crises using management strategies as discussed by Mitroff (1994). A preparedness mindset is essential to recognize and implement these tools during a crisis. Communication protocols are necessary to manage crisis information effectively, according to Pearson and Clair (1998).

Crises can arise from natural events (e.g., earthquakes) or socio-technical failures (e.g., security breaches). These infrequent but highly impactful occurrences threaten organizational survival, characterized by ambiguity in causes, effects, and solutions.

Crisis Preparedness

Previous studies highlight that an organization's ability to manage a crisis is not always a clear indicator of overall performance, making it challenging to measure the adequacy of crisis management practices (Pearson and Clair, 1998). A comprehensive framework is needed to assess crisis management,

linking desired goals, performance metrics, strategic approaches, operational systems, and overall performance.

Wang (2012) introduced a framework with three dimensions and seven performance indicators: capability measurement, corporate integrity, and organizational learning viability. Capability measurement includes stakeholder engagement, information dissemination, and executive involvement. Corporate integrity is evaluated through financial measures and stakeholder trust. Organizational learning viability assesses documentation practices and the speed of implementing improvements.

Reilly (1987) developed a managerial indicator to assess preparedness, focusing on the ability to adapt to crises. His scorecard includes six indicators: rapid response capability, availability of crisis information, access to resources, effectiveness of strategic planning, perceived crisis likelihood, and media management capability.

Rousakis and Alcott (2007) grouped six indicators into three measurements: internal functionality (quick response, information availability, resource access, strategic planning effectiveness), media relations capability, and perceived crisis likelihood. These frameworks collectively aim to provide a robust assessment of an organization's crisis preparedness.

Internal Communication

Internal communication is vital for organizational effectiveness, fostering collaboration, coordination, and

information sharing across all hierarchical levels. It promotes transparency, trust, and engagement among employees, facilitating a sense of belonging and shared purpose. Effective internal communication ensures employees are well-informed and aligned with the company's objectives, enhancing teamwork, knowledge sharing, and innovation for organizational success. Whether through face-to-face interactions or digital tools, a well-established internal communication network is essential, according to Vercic (2012).

Researchers have shown that internal communication and knowledge sharing lead to organizational innovation, especially through effective use of Information Technology Systems (Cerne et al., 2013). Thomas-Hunt highlights the importance of knowledge exchange within organizations, emphasizing collaboration and information interchange as suggested by Cohen (1998).

During crises, management plays a crucial role in communication, determining key message dissemination through various channels and ensuring employees are aware of media strategies. Contingency plans should address alternative communication methods if usual channels are inaccessible, and employees should be instructed on media engagement protocols (Coombs).

Research Hypotheses and Model

The following hypotheses are developed based on the above discussion:

- H1: Internal communication between the organizational divisions can positively affect managers' responsiveness capability to the crisis.
- H2: Internal communication between the organizational divisions can positively affect Managers' availability of critical information.
- H3: Internal communication between the organizational divisions can positively affect Managers' access to crisis management resources.
- H4: Exploring the positive relationship between internal communication and the adequacy of Strategic Crisis Planning.

Research model and Variables Definitions

In this study, there are two types of variables:

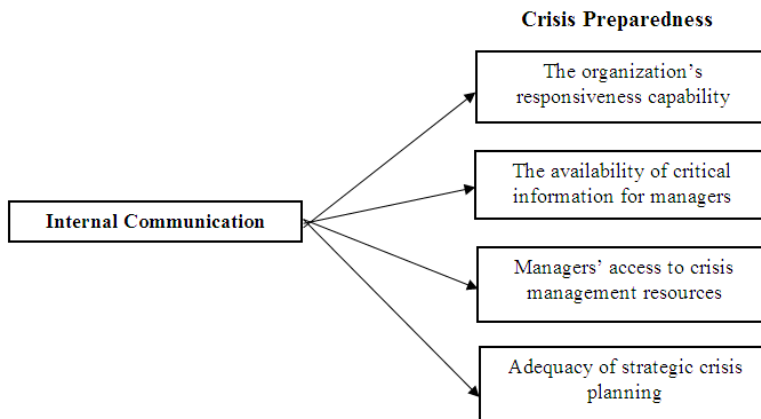
1. Independent

- Internal Communication: Activities of transforming or disseminating information from one division to another (Lee, 2001).

2. Dependent

- The organization's responsiveness capability: the speed of an organization in effectively responding to a crisis (Wang and Hsiao, 2014).

- The availability of critical information for managers: The level of manager's awareness concerning the information and resources for crisis response (Wang and Hsiao, 2014).
- Managers' access to crisis management resources: Managers' degree of power to develop an organization's crisis management resources and overspread these resources for crisis response (Wang and Hsiao, 2014).
- Adequacy of strategic crisis planning: The level of organization's focus on strategically planning for crises (Wang and Hsiao, 2014).



Research Design

Research Approach

Ikram and Kenayathulla (2022) suggested three main research approaches: mixed techniques, qualitative, and

quantitative methods, with the choice depending on the data needed. Quantitative research, emphasizing structured questionnaires, surveys large populations, while qualitative research gathers in-depth responses from smaller samples through interviews or focus groups. This paper employs a quantitative method due to its correlational nature and the use of a web-based questionnaire, suitable for investigating non-observable constructs. A cross-sectional approach was chosen for data collection efficiency, considering the study's complexity and objectives, offering practicality and cost-effectiveness.

Population and Sample

This study focuses on exploring the interaction between internal communication and crisis preparedness within IT sector companies in Egypt. The IT industry's rapid changes and dynamic nature prompt a deep dive into knowledge sharing and crisis readiness within this sector. With approximately 19,862 companies in 2023, including information technology, IT service, and communication companies, the ICT sector in Egypt is experiencing substantial growth. Employment in the sector reached 89,603 employees in December 2023, showing a 16.3% increase compared to the previous year, making it the fastest-growing sector in Egypt. This study aims to provide insights into how internal communication and crisis preparedness dynamics impact the IT workforce, contributing to a better understanding of organizational operations in the region.

Sample Size

The following formula was used to determine the sample size (Cochran, 1963)

$$E = Z\alpha/2 \sqrt{P(1-P)/n}$$

The sample size for the study was determined using Cochran's formula (1963), ensuring a 5% maximum difference (E) between estimated and actual values. Probability (P) was set at 0.2 for equal response chances across questionnaire options. A significance level (α) of 5% ensured a 95% confidence level, with $Z\alpha/2$ value of 1.96. Substituting these values, the calculated sample size (n) was 246. Allowing for 15% additional participants to accommodate missing data or incomplete responses, the final sample size required is 283. This robust sample size ensures statistical accuracy and enhances the study's reliability and generalizability.

Data Collection

The primary methodology used to comprehensively collect individual-level data on Internal Communication and Crisis Preparedness dimensions was the use of a web-based self-administered questionnaire. This survey approach undergone a comprehensive and accurate implementation process, underscoring the study's unwavering commitment to upholding integrity and ethical standards throughout its course.

Data validity and reliability

Survey questions were designed to cover key aspects of the constructs under investigation. Survey questions were designed to align with the research objectives and aimed to explore into participants' experiences, attitudes, and perceptions regarding the research topic. Questionnaire responses were collected electronically, and were reviewed by experts and professionals in internal communication for validity. The data were automatically recorded to ensure all information was captured for subsequent auditing. Using response data and analysis through Google Forms features ensures that all motivations and barriers are stated or expressed by participants.

The reliability analysis of the survey, as outlined in **Error! Reference source not found.**, demonstrates a robust internal consistency across all domains, indicative of the survey's reliability for measuring various aspects of organizational crisis management. The Cronbach alpha values range from 0.782 to 0.959 across the different domains, suggesting the internal consistency and reliability of the responses. Specifically, the domain of internal communication exhibits a Cronbach alpha of 0.782, which, while slightly lower than the others, still indicates acceptable reliability. The responsiveness capability and access to crisis management resources domains have Cronbach alpha values of 0.797 and 0.865, respectively, both of which are well within the acceptable range, suggesting that the items within these domains are consistently measuring the intended constructs. Notably, the availability of

critical information and the adequacy of strategic crisis planning domains demonstrate higher reliability, with Cronbach alpha values of 0.892 and 0.898, respectively. These values suggest a high degree of internal consistency within these domains, indicating the validity of the constructs they are intended to measure. The overall survey, encompassing all 42 items across these domains, shows an excellent level of internal consistency with a Cronbach alpha of 0.959, indicating that the survey, as a whole, is a highly reliable tool for assessing organizational crisis management aspects.

Domain	No. of items	Cronbach alpha	Reliability accepted
Internal communication	8	0.782	Yes
Responsiveness capability	8	0.797	Yes
Availability of critical information	8	0.892	Yes
Access to crisis management resources	7	0.865	Yes
Adequacy of strategic crisis planning	11	0.898	Yes
Overall survey	42	0.959	Yes

Table 1: Assessment of the reliability of different domains of the survey (N=287)

Survey Analysis

The research initiative used a methodological approach, using a five-point Likert Scale to evaluate the four constructs

identified in the research model, with a specific focus on exploring "The Influence of Internal Communication within Organizational Divisions on Crisis Preparedness in IT companies in Egypt." The chosen framework model is reflective.

The questionnaire begins with a demographic section aimed at gathering background information such as gender, age, and company details. This is followed by five sections: the first section is focusing on internal communication; the second section of the questionnaire addresses the ability to response to crisis. Following this, the third section aims to measure the availability of critical information that requires responding to the crisis, while the fourth part assess the accessibility to crisis management resources. The fifth and final part focuses on the evaluation of strategic aspects of crisis planning within the organizational framework.

Description of the study sample

A total of 287 (Response rate 95.7%) completed the responses to all survey items. A summary of demographic

characteristics is presented in Table and

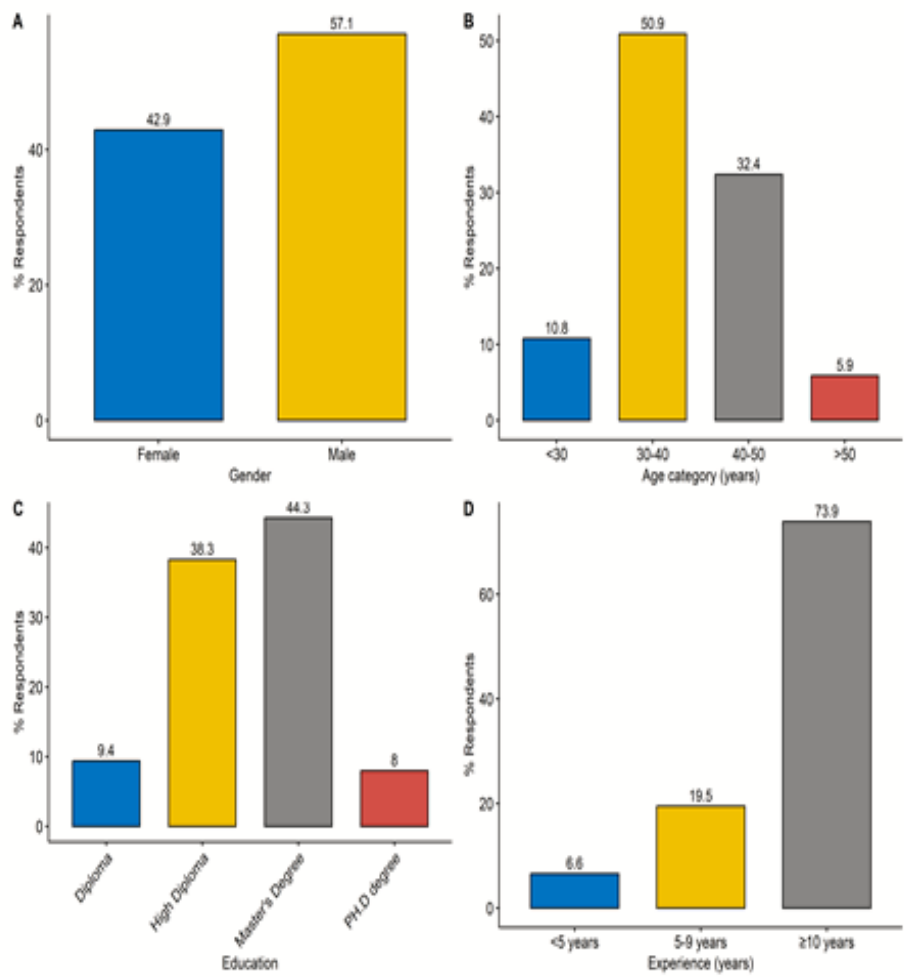


Figure 1 &Figure 2.

Characteristic	N = 287 ¹
Gender	
Female	123 (43%)
Male	164 (57%)
Age (Years)	
<30	31 (11%)
30-40	146 (51%)
40-50	93 (32%)
>50	17 (5.9%)
Highest Level of Education	
Diploma	27 (9.4%)
High Diploma	110 (38%)
Master's Degree	127 (44%)
PH.D degree	23 (8.0%)
Years of Experience	
<5 years	19 (6.6%)
5-9 years	56 (20%)
≥10 years	212 (74%)
Employment Status	
Contract/Freelance	3 (1.0%)

Full-time	272 (95%)
Part-time	3 (1.0%)
Unemployed	9 (3.1%)
Current Job Title	
Front-line staff (Employees/Supervisor)	84 (29%)
Middle Manager (General/Division)	110 (38%)
Senior Manager (Top manager/Director)	93 (32%)
Size of Current Employer	
Small (1-50 employees)	40 (14%)
Medium (51-250 employees)	48 (17%)
Large (251+employees)	199 (69%)
Type of IT Organization	
Cybersecurity	1 (0.3%)
Hardware/Infrastructure	17 (5.9%)
IT Services	49 (17%)
Software Development	14 (4.9%)
Telecommunication	206 (72%)
¹ n (%)	

Table 2: Demographic characteristics of the study sample (N=287).

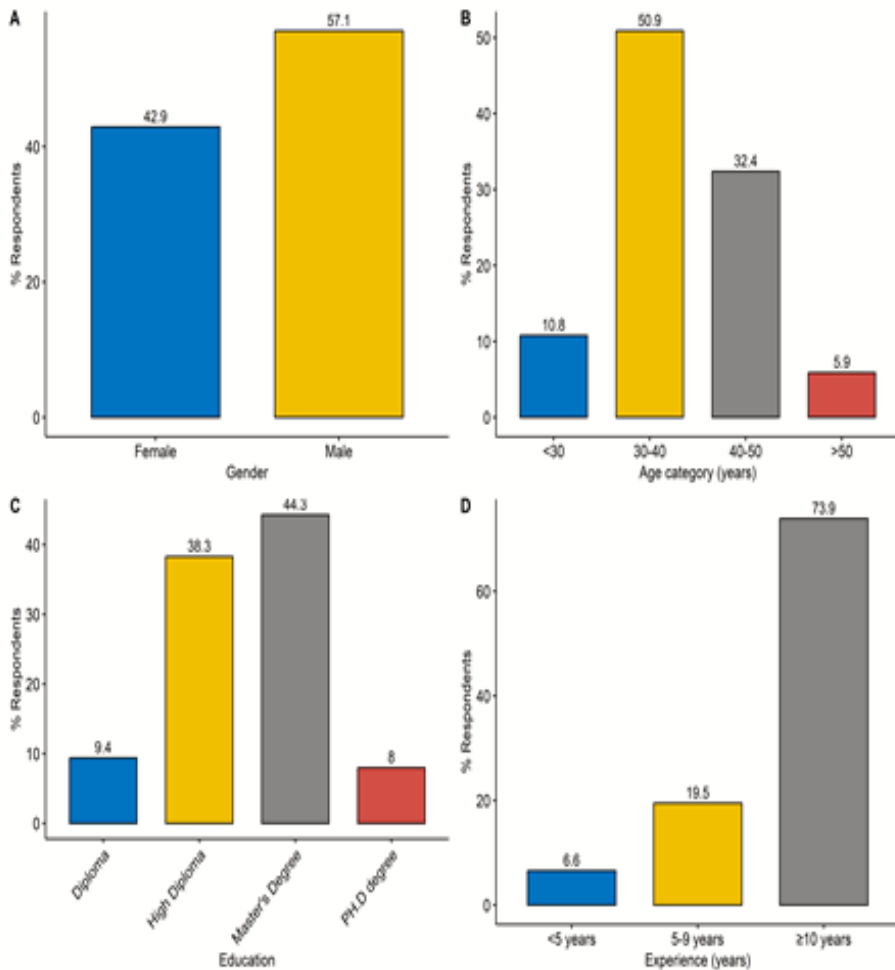


Figure 1: Characteristics of the A. Gender, B. Age, C. Education, and D. Years of experience of the study sample (N=287).

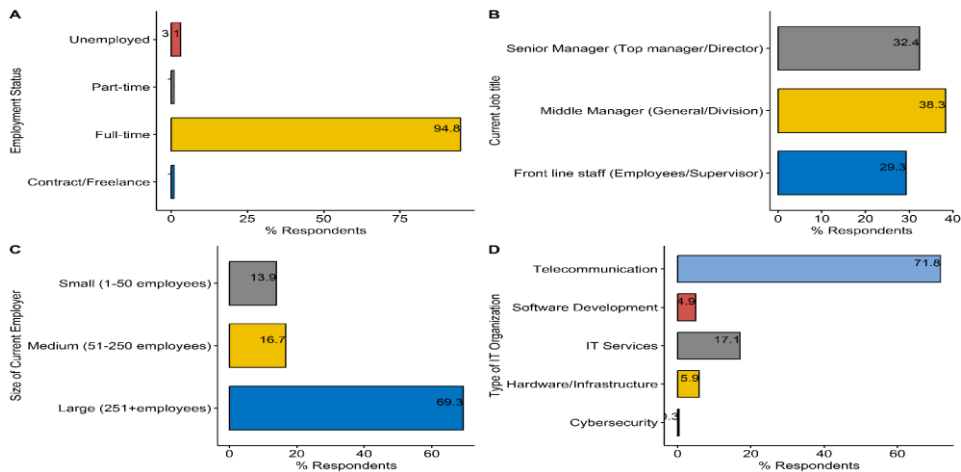


Figure 2: Characteristics of the A. Employment status, B. Job titles, C. Size of employer, and D. Type of IT organization of the study sample (N=287).

Descriptive statistics of the study domains

The domain of Internal Communication shows a range from 1.38 to 4.88, with a mean score of 3.59 and a standard deviation of 0.59. This domain is assigned the highest relative importance (ranked 1) with a relative weight of 71.8%. The Responsiveness Capability domain, though closely following in importance (ranked 2), presents a mean score of 3.35 with a standard deviation of 0.71. This domain holds a relative weight of 67.8%. The Availability of Critical Information domain exhibits a wider range of scores (1.25 to 5) and a highest standard deviation of 0.73, suggesting greater disparity in participant responses. Its mean lowest score of 3.2 and relative weight of

64% place it at the lowest rank in terms of relative importance (ranked 5). Access to Crisis Management Resources, with a mean of 3.34 and standard deviation of 0.69, with relative importance 66.8% (ranked 3). The domain of Adequacy of Strategic Crisis Planning, however, stands out with the maximum score of 4.82, alongside a notable mean of 3.25 and the standard deviation of 0.69 among all domains, falls just above in importance (ranked 4) with a relative weight of 65%, it emerges as a significant area of focus in organizational crisis management (**Error! Reference source not found.**).

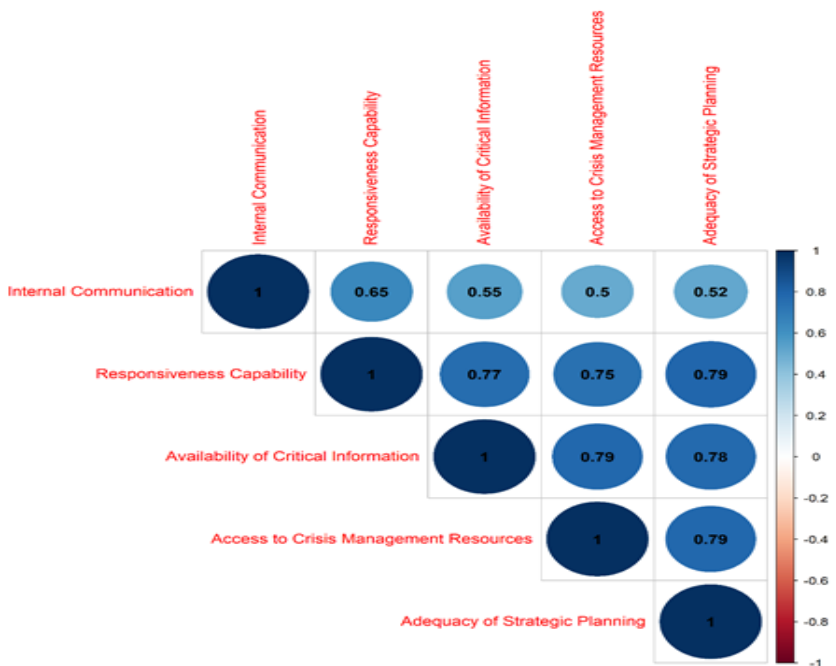
Domain	Minimum	Maximum	Mean	Std. Deviation	Relative Weight	Relative Importance
Internal Communication	1.38	4.88	3.59	.59	71.8%	1
Responsiveness capability	1.38	4.88	3.35	.71	67.8%	2
Availability of critical information	1.25	5.00	3.20	.73	64%	5
Access to crisis management resources	1.00	4.86	3.34	.69	66.8%	3
Adequacy of strategic crisis planning	1.36	4.82	3.25	.69	65%	4

Table 3: Descriptive summary of the survey domains (N=287).

Correlation analysis

The correlation analysis presented in (Table 4) demonstrates the interrelationships among various dimensions of organizational crisis management. The Pearson correlation coefficients, all significant at the 0.01 level, indicate a range of moderate to strong positive relationships between the study variables. Notably, internal communication shows positive correlations with all other domains, suggesting its integral role in crisis management. The coefficient of 0.666 between internal communication and responsiveness capability denotes a strong positive association, implying that effective internal communication is likely to enhance an organization's ability to respond to crises. Similarly, internal communication is moderately correlated with the availability of critical information ($r = 0.546$), access to crisis management resources ($r = 0.532$), and adequacy of strategic crisis planning ($r = 0.507$), confirming the importance of communication in various facets of crisis management. Moreover, the responsiveness capability domain exhibits robust correlations with other domains, particularly with the availability of critical information ($r = 0.800$) and adequacy of strategic crisis planning ($r = 0.808$), indicating that an organization's ability to respond effectively to crises is closely linked with both the availability of essential information and the robustness of strategic planning. The strong correlation between

access to crisis management resources and the availability of critical information ($r = 0.801$) further suggests the interdependence of these domains in promoting an organization's crisis management capacity. The significant correlations suggest that improvements in one area, such as internal communication or strategic planning, could positively influence other aspects of crisis management within an organization (**Error! Reference source not found.**). All correlations are statistically significant and greater than 0.5, suggesting moderate to high correlations. This indicates that the items have a good level of shared variance and likely reflect the same construct (reflective framework).



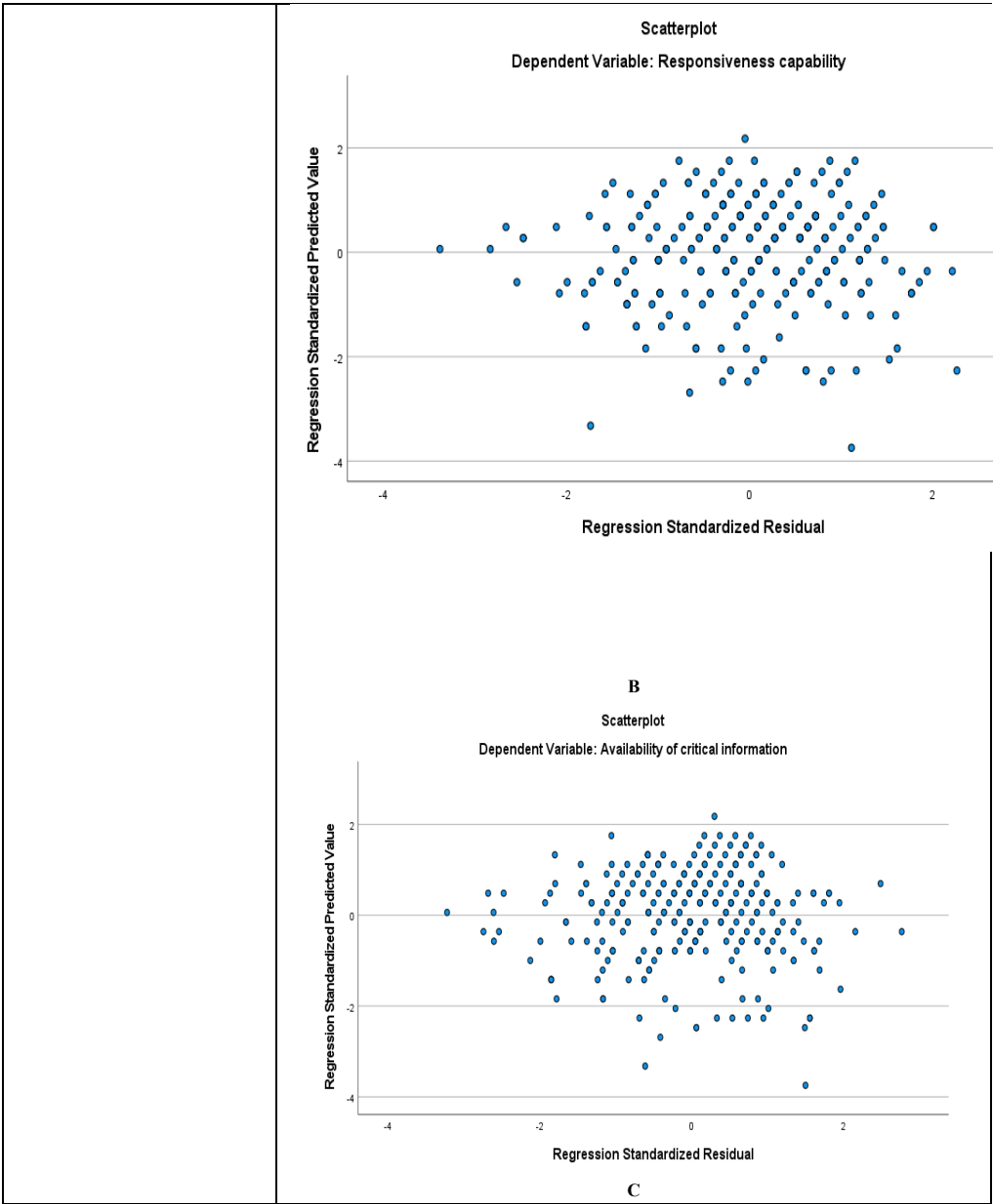
Variable	Parameter	Internal Communication	Responsiveness capability	Availability of critical information	Access to crisis management resources	Adequacy of strategic crisis planning
Internal Communication	Pearson Correlation	1	.666**	.546**	.532**	.507**
	<i>P</i>		<0.001	<0.001	<0.001	<0.001
Responsiveness capability	Pearson Correlation	.666**	1	.800**	.767**	.808**
	<i>P</i>	<0.001		<0.001	<0.001	<0.001
Availability of critical information	Pearson Correlation	.546**	.800**	1	.801**	.809**
	<i>P</i>	<0.001	<0.001		<0.001	<0.001
Access to crisis management resources	Pearson Correlation	.532**	.767**	.801**	1	.804**
	<i>P</i>	<0.001	<0.001	<0.001		<0.001
Adequacy of strategic crisis planning	Pearson Correlation	.507**	.808**	.809**	.804**	1
	<i>P</i>	<0.001	<0.001	<0.001	<0.001	
** Correlation is significant at 0.01 level. P-values were calculated using the Pearson correlation test.						

Table 4: Correlation analysis of the study variables (N=287)

Regression analysis

The regression models elucidate the strength and significance of the relationships between internal communication (independent variable) and four dependent variables: responsiveness capability, availability of critical information, access to crisis management resources, and adequacy of strategic crisis planning. The adjusted R² values for these models indicate a substantial proportion of variance explained in the dependent variables by the independent variable. Specifically, the model for responsiveness capability shows the highest explanatory power, with an adjusted R² of 44.2%, indicating that nearly half of the variability in responsiveness capability is accounted for by internal communication. Similarly, the models for availability of critical information, access to crisis management resources, and adequacy of strategic planning exhibit notable explanatory power, with adjusted R² values of 29.6%, 28.1%, and 25.5%, respectively. These findings suggest that internal communication significantly influences each of the four dependent variables in the context of organizational crisis management, with the greatest impact on responsiveness capability (Table 5).

Linear regression prerequisite	Findings
1- Linearity	All dependent variables showed positive linear correlations with the independent variable in the study, with no single correlation estimate of <0.3 (weak correlation) [Table 15, Figure 8].
2- Homoscedasticity	Homoscedasticity was investigated through plotting of residuals vs. predicted values, indicating uniform variance across predictions. Below are the detailed plots for each univariate model, where residuals are nearly randomly distributed around the zero-reference line with no apparent systematic trends. A



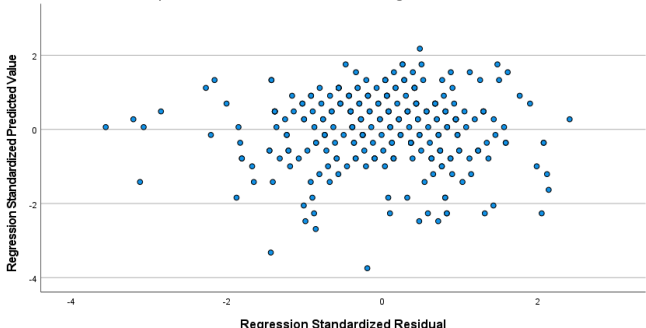

	<p style="text-align: center;">Scatterplot Dependent Variable: Access to crisis management resources</p>  <p style="text-align: center;">D Scatterplot Dependent Variable: Adequacy of strategic crisis planning</p>  <p>Figure 4: Scatter plot of standardized predicted values vs. standardized residuals of A. Responsiveness Capability B. Availability of Critical Information C. Access to crisis management resources D. Adequacy of strategic crisis planning.</p>
3- Independence of errors	The Durbin-Watson statistic for the developed models ranged between 1.92-2.01, suggesting no autocorrelation among residuals.
4- Multicollinearity	The variance inflation factor (VIF) revealed no evidence of multicollinearity among predictors (all VIF values < 5)
5- Normality of the residuals	Shapiro-Wilk test p-values ranged between 0.07-0.94 (all were >0.05), indicating normally distributed residuals.

Table 5: Testing the assumptions of the linear regression models investigating the relationship between dependent and independent variables of the study.

Model	Adjusted R ²	F	P	Significance
Responsiveness Capability	44.2%	227.6	<0.001	Significant
Availability of Critical Information	29.6%	121.0	<0.001	Significant
Access to Crisis Management Resources	28.1%	112.6	<0.001	Significant
Adequacy of Strategic Planning	25.5%	98.8	<0.001	Significant

Table 6: Univariate linear regression models for the impact of internal communication (independent variable) on responsiveness capability, availability of critical information, access to crisis management resources, and adequacy of strategic crisis planning (dependent variables).

Table 7, Table 8, Table 9 and Table 10 present the univariate regression models for predicting responsiveness capability, availability of critical information, access to crisis management resources, and adequacy of strategic crisis planning based on internal communication, revealing positive and statistically significant relationships. These models suggest that for each unit increase in composite internal communication, there is an expected increase of 0.69, 0.67, 0.54, and 0.82 units in perceived organizational responsiveness capability, availability of critical information, access to crisis management resources, and adequacy of strategic crisis planning, respectively. Collectively, these findings suggest acceptance of all the study hypotheses including the positive impact of internal communication on responsiveness capability, availability of

critical information, access to crisis management resources, and adequacy of crisis strategic planning (11).

Parameter	Unstandardized Coefficients		Standardized Coefficients	t	P
	B	Std. Error	Beta		
Intercept	.922	.166	-	5.57	<0.001
Internal communication	.687	.046	.666	15.09	<0.001

Table 7: Univariate regression model predicting responsiveness capability based on internal communication.

Parameter	Unstandardized Coefficients		Standardized Coefficients	t	P
	B	Std. Error	Beta		
Intercept	.777	.223	-	3.49	0.01
Internal communication	.674	.061	.546	11.00	<0.001

Table 8: Univariate regression model predicting the availability of critical information based on internal communication.

Parameter	Unstandardized Coefficients		Standardized Coefficients	t	P
	B	Std. Error	Beta		
Intercept	1.114	.213	-	5.23	<0.001
Internal communication	.622	.059	.532	10.61	<0.001

Table 9: Univariate regression model predicting access to crisis management resources based on internal communication.

Parameter	Unstandardized Coefficients		Standardized Coefficients	t	P
	B	Std. Error	Beta		
Intercept	1.122	.217	-	5.18	<0.001
Internal communication	.593	.060	.507	9.94	<0.001

Table 10: Univariate regression model predicting adequacy of strategic crisis planning based on internal communication.

The univariate regression equations can be formulated as:

Perceived organizational Responsiveness Capability

= 7.38

+ 0.69X *Composite Internal communication*

Perceived Availability of Critical Information

= 6.22

+ 0.67X *Composite Internal communication*

Perceived Access to Crisis Management Resources

= 7.80

+ 0.54X *Composite Internal communication*

Perceived Adequacy of strategic crisis planning

= 12.35

+ 0.82X *Composite Internal communication*

Hypothesis	Description	Accepted/Rejected
H1	There is a positive association between internal communication and the organization's responsiveness capability.	Accepted
H2	There is a positive association between internal communication and the availability of critical information	Accepted

H3	There is a positive association between internal communication and the organization's access to crisis management resources	Accepted
H4	There is a positive association between internal communication and the organization's adequacy of strategic crisis planning.	Accepted

Table 11: Executive summary of the results of the hypothesis testing of the current study (N=287)

Discussion

The statistical analysis showed up a positive correlation between variables, as previously indicated in the correlation table (Kruskal-Wallis test). This finding supports the research hypothesis that internal communication is essential for an organization's crisis preparedness. The analysis led to the acceptance of the research hypotheses, confirming the important role of internal communication in organizational preparedness for crises. The following discussion provides insights into the results of the research hypotheses and compares them with findings from relevant studies, leading to the following conclusions:

- **Hypothesis 1 (H1):** Examining the internal communication decisions promptly under highly uncertain conditions. A comprehensive understanding of the situation can be developed through the flow of internal communication among the organization's divisions. As argued by Abdulla (2011), this flow of communication also promotes managerial collaboration during decision-making processes, creating synergy among

participants and enhancing their collective performance in managing the crisis.

- **Hypothesis 2 (H2):** Exploring the internal communication between the organizational divisions can positively affect Managers' availability of critical information. This finding suggests that during business crisis events, internal communication supplies managers with the necessary information and knowledge to effectively handle and manage crisis situations. Previous research in the field of knowledge sharing and management supports this argument (Huang, 2011).
- **Hypothesis 3 (H3):** Examining the internal communication between the organizational divisions can positively affect Managers' access to crisis management resources. While having information available is important, its ease of access and timeliness are even more important. This positive correlation between internal communication and the accessibility of crisis management resources has been supported in previous studies. When a crisis strikes, whether it impacts specific divisions or the entire organization, all members may experience stress due to the uncertainty of the situation. Once the organizational status is clarified and the consequences are assessed, managers must be able to quickly reach the necessary resources to address the crisis. This quick access is made possible by the previous internal communication and sharing of information among

divisions, ensuring that resources are available when needed as argued previously by Racherla (2009) and MG (2018).

- **Hypothesis 4 (H4):** Examining the positive relationship between internal communication and the adequacy of Strategic Crisis Planning, previous literature has studied the role of strategic management in crisis events from various perspectives. These studies clearly emphasize the important role of strategic planning in an organization's preparedness to respond effectively during a crisis as argued previously by Abdulla (2011) and Jung Hsieh (2007).

The previous findings highlight and emphasizes the significant importance for organizations to prioritize internal communication among their divisions as a means to address crisis events and enhance crisis preparedness. The main focus of internal communication within organizational divisions is supported by solid knowledge management systems and crisis information management systems as argued by (Pearson & J.A. Clair (1998).

These information and knowledge management systems facilitate the tasks of strategic crisis planning that provides the organization with the necessary elements to effectively respond during a crisis. Notably, this study represents an early effort to empirically validate the relationship between internal communication and organizational preparedness for crises.

Conclusion

This research paper aimed to emphasize the role of internal communication and sharing of information on crisis preparedness and management capabilities. By integrating the concept of internal communication with organizational crisis preparedness dimensions, the research model shows the important role of internal communication. Previous studies have not thoroughly examined this influence empirically. To address this gap, the study proposes a model that empirically explores the relationship between internal communication and crisis preparedness.

Focusing on managers in the information technology sector in Egypt, the findings support research hypotheses and provide valuable insights for effective crisis planning. Organizations can enhance their resilience and business continuity by using internal communication and sharing information strategies during crisis events.

Research Limitations

While this study significantly contributes to existing communication literature, several limitations should be noted. The findings are based on a sample of managers in the information technology sector in Egypt, limiting the generalizability of the results beyond this specific context. Future research should verify the model with data from other industries and international settings. The sample specifically targeted managers assumed to be the first responders during crisis events,

so future studies should target different industries and include employees at various levels. The use of cross-sectional data may limit the depth of understanding; thus longitudinal research settings are recommended to validate the results over time. Additionally, the study relies on subjective measures reflecting respondents' opinions rather than objective facts, indicating a need for future exploration through objective methods. The researcher faced data availability issues, preventing a comprehensive examination across diverse organizational cultures; hence, future studies should aim to include participants from varied cultural backgrounds. Finally, future research should investigate mediating or moderating variables in the relationship between participative strategic planning and performance.

Research Implications

Implications for research

This study underscores the importance of internal communication in organizational crisis management, aligning with traditional crisis management studies that have demonstrated its significant role. However, while previous research often either illustrated case evidence of the link between crisis management capabilities and internal communication or focused on designing and implementing communication and information management systems, there remains a gap in empirical research specifically validating this influence on organizational preparedness for crises. The current research

addresses this gap, highlighting the substantial explanatory power of internal communication in shaping managers' perceived levels of crisis preparedness. It confirms the positive relationship between effective internal communication and an organization's quick response to crisis events, showing that through internal communication, managers gain access to essential crisis management resources and information, enabling them to develop effective strategies for handling unexpected events.

Managerial Implications

Based on the results and data analysis, the research recommends that organizational management teams should prioritize communication management practices. This involves employing collaborative tools that facilitate knowledge sharing through platforms such as knowledge bases, experts' blogs, and community-based systems. Additionally, the study suggests investing in data management, business intelligence, and analytics platforms to ensure all managerial and supervisory levels have instant access to critical data, information, and knowledge. Such accessibility significantly enhances crisis preparedness and response efforts.

Recommendations for Future Work

The recommendations for future research include conducting a broader study involving a larger sample of organizations across diverse industries beyond the Egyptian

Information Technology market. A comparative study on the influence of internal communication on organizational crisis preparedness in other Middle Eastern countries would also be valuable. Since the study primarily focused on the relationship between internal communication and crisis preparedness dimensions, it did not fully address certain critical factors influencing these areas. Future studies should consider factors such as organizational interactions, shared values and norms, leadership formation, and organizational culture. Exploring these factors could provide deeper insights into internal communication and crisis preparedness, enhancing our understanding of key variables in emerging economies like Egypt. Qualitative studies focusing on these issues are highly recommended. Additionally, organizations should develop a strategic internal communication system to support crisis management, facilitate interaction between divisions, align with current and future goals, aid in strategic decision-making, and enhance collaboration among crisis managers and resources.

Summary:

This research empirically validates the impact of internal communication on organizational crisis preparedness capabilities, demonstrating its significant influence on managers' perceived preparedness across four primary dimensions. Specifically, the findings highlight how effective internal communication positively affects an organization's ability to respond swiftly

during a crisis by enabling managers to identify critical information and resources, ensuring their accurate and convenient access. This, in turn, facilitates the development of effective crisis management strategies, helping organizations navigate business crises successfully. However, the study is limited to the Information Technology industry in Egypt, so future research should broaden the scope to include diverse populations and further evaluate crisis preparedness and internal communication. Additionally, the researcher recommends that organizations develop an internal communication management system to enhance overall business performance.

Acronyms and Abbreviations

Item	Abbreviation
CM	Crisis Management
IT	Information Technology
VIF	Variance Inflation Factor

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Appendix 1

Questionnaire: The Influence of Internal Communication within Organizational Divisions on Crisis Preparedness in IT companies in Egypt.

In the questionnaire, we ask you about the influence of internal communication within organizational divisions on crisis preparedness in IT companies in Egypt. The questionnaire includes three main sections: the first section represents general demographic information about the survey respondents, the second section focuses on statements developed based on the independent variable and its dimensions and the third section focuses on the dependent variables.

We ask you to be realistic and objective in assessing your organization. We assure complete anonymity of the gathered data. These will be represented on aggregate level alone. Please

provide answers on all questions, even if they seem repetitive. This is the only way we can ensure that the questionnaire is statistical reliable and valid. In spite this; if you feel that a particular statement is completely irrelevant, circle the letter »X« (do not know).

Section (1) Participants Demographics:

1. Gender:
 - Male
 - Female
2. Age Range:
 - Less than 30
 - Less than 40
 - Less than 50
 - 50 years or more
3. Educational Qualification:
 - Diploma
 - High Diploma
 - Master's degree
 - PH.D degree
4. Years of Experience:
 - Less than 5 years
 - From 5 to less than 10 years
 - 10 years or more

5. Current Employment Status:

- Full-time
- Part-time
- Contract/Freelance
- Unemployed
- Retired

6. Job Position:

- Senior Manager (Top manager/Director)
- Middle Manager (General/Division)
- Front line staff (Employees/Supervisor)

7. Company Size

- Small (1-50 employees)
- Medium (51-250 employees)
- Large (251+employees)

8. Type of IT Company:

- Software Development
- IT Services
- Hardware/Infrastructure
- Cybersecurity
- Telecommunication

Indicate the degree of agreement or disagreement that fits the situation in your company best:

Please circle one choice for each of the following statements.

(1 = strongly disagree, 2 = disagree, 3 = nor disagree nor agree, 4 =agree, 5 = strongly agree; X = do not know)

- 1- I am willing to share my personal contacts with employees in my organization.
- 2- It is necessary to establish close working relationships with my colleagues at the organization as much as I can.
- 3- I see myself as a key person who links my colleagues with each other.
- 4- I concentrate on having good relationships with employees in different departments at the organization who are useful for my learning and professional development.
- 5- My organization is aware of the best practices for internal communication.

Section (2) The independent variable: Internal Communication

- | | |
|--|--|
| <p>6- My organization systematically searches for information about the best practices for internal communication.</p> <p>7- My organization knows how to access new information about internal communication.</p> <p>8- My organization can quickly adapt to new knowledge about internal communication from the outside.</p> | <p>4- My organization responds effectively during a crisis.</p> <p>5- My organization's overall behavior in responding to most crisis situations is to take some action as soon as possible.</p> <p>6- My organization determines the most critical procedures to resume activity and respond effectively</p> <p>7- My organization develops crisis management plans and scenarios to face crises.</p> <p>8- My organization has flexible structure that responds quickly and efficiently.</p> |
|--|--|

Section (3) The dependent variable:

A. The organization's responsiveness capability: the speed of an organization in effectively responding to a crisis.

- 1- My organization will quickly recover after crisis situation.
- 2- My organization has a slow response to threatening situations.
- 3- My organization is well-organized in a way that allows its management and employees to respond quickly in the event of an unexpected threat.

B. Availability of critical information for managers: The level of manager's awareness concerning the information and resources for crisis response.

- 1- Managers in my organization have high accessibility to crisis management resources.
- 2- Managers in my organization are well informed about the resources and tools allocated for crisis response.

- 3- Organizational crisis threats have been identified and are planned for.
- 4- My organization's information related to the crises is kept and easy to access
- 5- Managers in my organization are well informed about the specific protocols and procedures to follow during a crisis
- 6- My organization conducts regular training sessions for managers to enhance their crisis response awareness
- 7- Managers in my organization have the ability to request and receive additional information as needed during a crisis
- 8- My organization has a dedicated team responsible for ensuring that managers have access to the most critical information during a crisis.

C. Managers' access to crisis management resources: Managers' degree of power to develop an organization's crisis management resources and

overspread these resources for crisis response.

- 1- Managers in my organization are authorized to use the crisis management resources and tools of the organization in order to cope with a crisis.
- 2- Employees at my organization have access to the crisis management resources and tools necessary to perform their part in the event of organization crisis.
- 3- My organization provides its employees with resources that allow them to respond to a crisis in a responsible way.
- 4- Ongoing feedback from all levels of the organization is encouraged.
- 5- Managers continually encourages active participation in organizational decisions.
- 6- Managers have the authority and resources to move quickly and act decisively during a crisis.
- 7- Managers will be able to set the communication strategy for the organization during a crisis.

D. Adequacy of strategic crisis planning: The level of

organization's focus on strategically planning for crises.

- 1- During a crisis, do you believe it is important to have comprehensive instructions available for providing crisis management guidance to employees
- 2- Employees in my organization are trained enough to handle crisis situation.
- 3- My organization rewards employees for their part in detecting and reporting potential crisis signs.
- 4- My organization has an adequate crisis management plan.
- 5- Does your organization is fully prepared to manage a crisis
- 6- The organization has a multi-disciplinary crisis management team.
- 7- The organization has an established communication process to communicate with key stakeholders during a crisis.
- 8- The organization has the necessary resources to manage a crisis tomorrow.
- 9- Our organization believes that positive relationships with our key stakeholders before a crisis will limit long-term damage to our reputation after a crisis.
- 10- Most crisis management failures occur in organizations that have a top-down, closed-management style.
- 11- Manager are involved in the strategic planning process of our organization.