



Regular Article

Humanitarian Projects Resilience to a Major Disruption: The Enablers for a Conducive Environment

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Received: 12/02/2025 / Accepted: 20/06/2025 / Published online: 25/11/2025

Abstract This manuscript aims to assess how the enablers of a supportive environment have influenced the resilience of IFRC (International Federation of Red Cross and Red Crescent Societies) humanitarian projects in responding to major stressors such as the COVID-19 pandemic. Assessing the factors that drive the enhancement of organisational resilience is a growing area of research interest. Indeed, the severity of the disruptions made the COVID-19 crisis an unprecedented stressor, providing new insights into risk management and contingency planning for future major disasters. Aid practitioners can enhance existing scholarly knowledge by conducting a survey to bridge the different perspectives between academia and humanitarian organisations. Public authorities, policymakers, donors, and aid workers can collaborate with academia to gather evidence that informs development priorities.

This paper aims to improve understanding of the variables and threats within the humanitarian project ecosystem. These elements interact during major crises to create or worsen vulnerabilities. Practitioners' insights will highlight key factors that either hinder or enable disaster response. The research findings also support humanitarian diplomacy and promote the development of more effective international disaster laws.

Keywords: conducive environment, project risk management, organisational resilience

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1. INTRODUCTION

The COVID-19 pandemic triggered a worldwide health crisis and disruptions that have intensified issues within the ecosystem of humanitarian organisations. The vulnerabilities continued to increase and were further exacerbated by reduced donor funding amid strict movement restrictions aimed at controlling the spread of the virus. These difficult conditions have hindered humanitarian responders. Figure 1 illustrates the threats to project resilience.

The importance of proposed resilience enablers is expected to evolve over time because of emerging threats, vulnerabilities, nationalism, and shifting geopolitical interests that influence international solidarity. The COVID-19 pandemic provided a real-world setting for risk analysts and resilience planners to evaluate the effectiveness of resilience enablers proposed by scholars. It presented a unique challenge for humanitarian workers, who had to navigate funding cuts, increasing vulnerabilities, and tighter access restrictions simultaneously.

The resilience traits of organisations during extreme conditions are likely to remain important in future disruptions. These traits are especially vital in situations such as sudden aid funding suspensions. Examples include those during the Trump Administration or in regions like Gaza, where vulnerabilities and access restrictions are increasing. Essential resilience enablers, including enhanced collaboration, partnerships, active diplomacy for access, and reliance on local responders, will remain vital for sustaining humanitarian efforts during periods of stress.

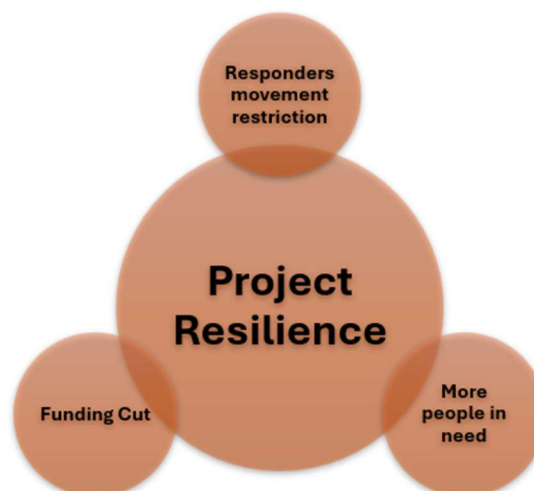


Figure 1. Changing the IFRC projects ecosystem

Empirical findings from the literature reveal realities in the organisation's environment that can influence the resilience of humanitarian projects. It includes enablers outside the organisation and often beyond a project manager's direct control. They can be termed macro-environmental uncertainties (Isa et al., 2024). Despite the abundance of organisational resilience enablers identified in publications, the development of knowledge for large humanitarian organisations such as the IFRC remains in its early stages.

Most analyses of the pandemic's socioeconomic and humanitarian effects mainly concentrate on identifying the immediate impacts of the crisis and its subsequent ripple effects. Few studies clearly identify the key resilience enablers that assist policymakers in legislating and creating an environment for effective responses. This paper aims to address that gap.

Creating a comprehensive list of resilience enablers would be a complex task. Authors have recommended an approach that intentionally simplifies workload and complexity for practitioners managing their risks (Hassel & Cedergren, 2021). In that context, a straightforward approach could involve grouping resilience factors into two latent variables: the conducive environment and the organisation's internal resources.

Appendix I shows a mind map of resilience predictors. This study focuses on external factors believed to influence and support organisational environments. These include promoting partnerships and collaboration (Witkowski & Marcinkowski, 2022; Stumpf et al., 2023; Zyoud, 2022), progressing the SDGs agenda (Filho et al., 2020; Mestdaggh et al., 2023) and encouraging greater localisation (Barbelet et al., 2020; Pascucci, 2021; Allouche & te Lintelo, 2022). The other factors include enhancing supply chain resilience (Walters, 2021; Negi, 2022; Stumpf et al., 2023), broadening access and humanitarian space (Ostergard, 2021; Betts et al., 2021; Robinson, 2023), and initiating macro-economic and social reforms (Shah et al., 2020; Costa et al., 2021).

Another research gap is the absence of a clear hierarchy of resilience enablers in the existing literature, which makes it difficult for decision-makers to prioritise resources during crises. Hence, the research question is: To what extent do variables that create a conducive environment influence the resilience of IFRC projects?

This research helps scholars deepen and broaden their understanding of organisational resilience. The study aims to identify and rank external resilience enablers for prioritisation by public authorities and policymakers, as there is no established hierarchy of resilience factors.

2. METHODOLOGY

The literature review shows that there is little academic benefit in compiling, comparing, and contrasting scholars' viewpoints on multiple resilience enablers. Therefore, the novel approach in this study is to establish a hierarchy of predictors based on ratings provided by IFRC project management practitioners. A quantitative research methodology appears to be the most appropriate choice. Editorials from research design experts such as Hair et al. (2020) endorse this approach.

The IFRC is the world's leading humanitarian organisation, comprising 192 national Red Cross and Red Crescent societies that are involved in over 1,000 multilateral humanitarian projects. These projects are managed by about 2500 humanitarian workers, including both national and international staff. To enhance research reproducibility for aid organisations, expanding the target population to include respondents from different aid organisations can be

beneficial. However, creating a sampling frame for each humanitarian project manager is likely impractical due to the size of the population.

Conducting a survey restricted to the Red Cross global network is a more practical approach. Despite this restriction, the findings should still be relevant primarily to the humanitarian sector. The population of humanitarian practitioners is fairly homogeneous worldwide, reflecting high staff mobility within the INGO sector (Holm-Nielsen et al., 2022). This primary factor reduces the need to extend the sample beyond the Red Cross movement, thereby enhancing the replicability and universality of the findings. The global presence of the Red Cross movement diminishes the inherent risk of research bias. The international mobility of staff within the IFRC and among International Organisations (IOs) offers opportunities for staff to acquire international experience across diverse crisis and disaster regions.

Furthermore, the demographic data collected indicated a high level of seniority among the respondents. 73% of the survey participants reported having more than 10 years of experience in the humanitarian sector. Respondents with over 10 years of experience in disaster management are more likely to provide insights on project resilience from a wider range of humanitarian contexts. This implies greater trustworthiness and a higher potential for survey results to be replicated globally.

To facilitate data collection, the sample for this study was selected from the entire list of IFRC personnel, using the organisation's email directory as the sampling frame. Three methods were evaluated to estimate the minimum sample size in PLS-SEM. The study referenced the approach by Kock and Hadaya (2018), the Cochran formula, and the G*Power tool (Hair et al., 2017), resulting in a recommended sample size of 189 participants for the survey.

The research's replicability was considered vital for evaluating its usefulness to project practitioners aiming to improve their organisational and project resilience. That consideration influenced the sampling size and method chosen. A non-probability judgement sampling design was selected.

Respondents were chosen based on their experience in different humanitarian settings worldwide to reduce sample selection bias. The researcher leveraged a network of skilled humanitarian project managers, which helped improve the response rate, diversify perspectives, and increase measurement accuracy.

The questionnaire was developed using variables adapted from the literature in project management and organisational resilience enablers (Ostergard, 2021; Barua, 2020; Jia et al., 2020; Barbelet et al., 2020; Rahman et al., 2021). This was followed by adopting a Likert scale with categorical coding to measure and rank items. The responses to the survey questions were coded on a scale from 1 to 7, with 1 representing the lowest level of influence or agreement and 7 indicating the highest level. The importance of resilience predictors was assessed via a questionnaire given to 652 IFRC staff between June 19, 2022, and November 4, 2022. 331 completed it, a 51% response rate.

Before hypothesis testing, ensuring data quality was essential. It was carefully addressed

through data preparation steps, including screening, editing, coding, and treatment. The data cleaning process, which involved a thorough review of all responses, found no data entry errors, straight-lining, or missing values that would affect the analyses. Based on the statistical assessment of the goodness of fit, the univariate normality of the data was confirmed. However, the results of skewness and kurtosis calculations showed that the multivariate normality requirement was not satisfied (Appendix II). Therefore, this indicated the need to use the bootstrapping procedure to assess the structural model in SMART-PLS (see Appendix III).

To strengthen confidence in the significance of the relationships between variables, the threats of bias from common method variance and multicollinearity were eliminated. This is shown by the assessment using a marker variable (see Appendix IV). After meeting the data quality and normality requirements, the collected data were analysed. Various statistical methods were used to verify the robustness, reliability, and validity of the measurement instrument for both the first-order and second-order constructs. The measurement model assessment yielded conclusive results on composite reliability, convergent validity, and discriminant validity, paving the way for testing the research hypotheses.

3. FINDINGS AND DISCUSSION

3.1 Findings

One of the research hypotheses subjected to SMART PLS analysis submits that IFRC's conducive environment has a positive influence on IFRC's level of project resilience during a pandemic. The assessment of statistical significance using a bootstrapping procedure reveals a pathway result with a significant value related to the IFRC's conducive environment and the resilience of IFRC projects. As presented in Table 1 below, the t-value is greater than 1.96 ($t = 7.461$). The p-value falls below .001. To avoid null hypothesis testing, the analysis is complemented with additional, more stable metrics to probe the impact of the sample size on the p-values. The substantive significance is ascertained with the measurements of the importance of the variable or the effect size ($F2 = 0.189$), and the BCI ranged between 0.424 and 0.664. By the standard cutoff value, this effect size is considered medium to large (Hair et al., 2017).

Table 1. Hypotheses testing

Hypothesis	Relationship	Std. Beta	Std.Dev.	t-value	p-value	BCI		f2
H1	Internal Resources -> IFRC projects Resilience	0.242	0.067	3.609	P< .001	0.126	0.342	0.039
H2	Conducive Environment -> IFRC projects Resilience	0.547	0.073	7.461	P< .001	0.424	0.664	0.189

The effect size measurement assessing the substantive significance or importance of both external and internal resilience predictors is shown in the results presented in Table 2.

Table 2. Importance of construct / substantive significance (F Square)

	IFRC projects Resilience
Access and Humanitarian Space	0.000
Collaboration and Partnership	0.058
Culture to risk management	0.001
Expertise in programming	0.024
Leverage on support services	0.003
Localisation of aid	0.029
Responders' safety	0.000
SDGs	0.006
Socio-economic reforms	0.021
Strategic Planning	0.000
Supply Chain Res.	0.007
Vulnerability to MCO	0.004

The structural model assessment that combines the IVs (Independent Variables) of conducive environment and internal resources (see Figure 2) also showed a moderate to substantial model explanatory power as reflected by the R^2 value ($R^2 = 0.611$). In this paper, the variable of interest is the Conducive Environment, which is examined as a second-order variable, by assessing its level of influence on humanitarian project resilience during the COVID-19 pandemic. The dimensions of Conducive Environment are the Access and Humanitarian Space (AHS), the Collaboration and Partnership (CP), the Localisation of Aid (LA), the progress on Sustainable Development Goals (SDGs), the Socio-Economic Reforms (SER) and the Supply Chain Resilience (SCR).

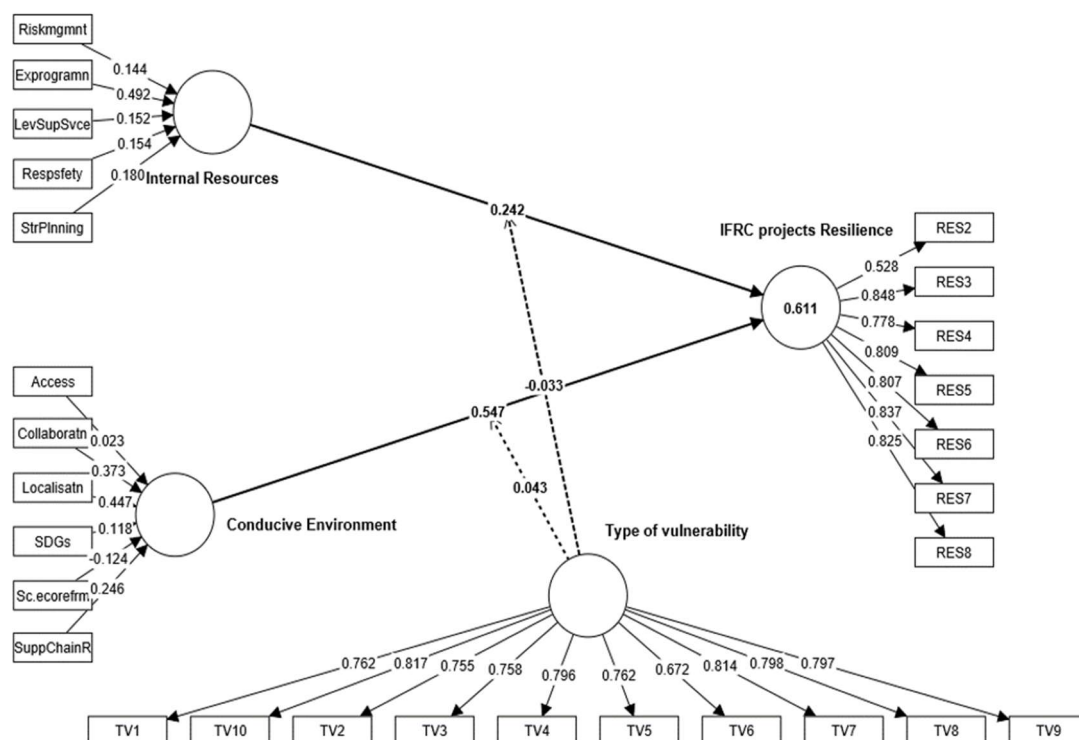


Figure 2. Reflective-formative structural model assessment/ PLS-SEM results (Algorithm)

It is found that a supportive environment significantly influences resilience development, as indicated by its β -value of 0.547. Compared to the variable of internal resources, which has a lower β -value ($\beta = 0.242$), it is inferred that external resilience factors play a more prominent role than other enablers of IFRC projects' resilience during the pandemic. The proposed model also demonstrated significant predictive relevance, as evidenced by its Q2 score ($Q2 = 0.579$).

The data analysis shows that IFRC survey respondents regarded the dimensions of a conducive environment as the most influential factor in building resilience. However, these are enablers that project managers have little or no direct influence over. In times of crisis, project managers seem more focused on the risks caused by external factors, which are beyond the organisation's direct control. The results of the present study have confirmed the significance of external factors over internal resilience predictors. This reflects the awareness and adoption by the IFRC operational project staff of the organisation's strategic objectives in humanitarian diplomacy. There is a good congruence between these findings and the conclusions of previous research.

One theoretical underpinning for creating and developing project resilience is contingency theory. Contingency theory posits that an organisation should continuously adapt its structure and practices to suit the environmental context in which it operates (Dubey et al., 2022). A successful economic policy response is crucial to creating and maintaining a conducive environment for humanitarian projects to thrive and achieve their objectives. It is in these terms that Shah et al. (2020) hypothesised and demonstrated a causal relationship between the resilience of humanitarian projects and variables in the projects' environment. Exogenous shocks often adversely affect organisations' projects and activities. It impacts their ability to deliver products and services, derailing them from their missions and strategic objectives (Rahi, 2019). Resilience strategies are built on the awareness and ranking of the prominent resilience predictors and the organisation's capacity to influence them.

In order of decreasing importance based on statistical significance, the responses from the IFRC project managers indicate a prioritisation of external resilience enablers, as illustrated in Figure 3 and detailed in the upcoming sub-sections.

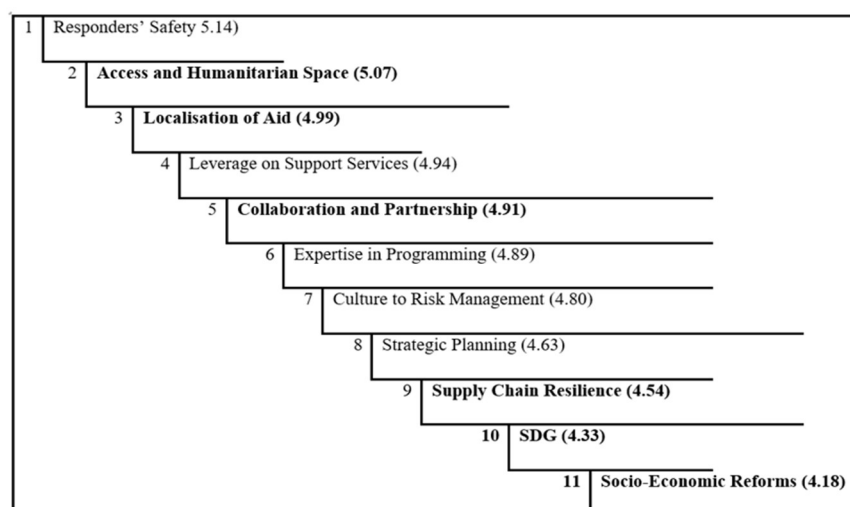


Figure 3. Hierarchy of resilience factors based on respondents' ratings
Note: Scale references - 1 = low, 4 = moderate, 7 = high

3.2 Discussions

3.2.1 Access and Humanitarian Space

International humanitarian laws, enacted through various treaties, conventions, and UN resolutions, specify requirements to enable and facilitate access to humanitarian relief for civilians in need. Military manuals also specify the obligation to permit the free passage of relief supplies. The ICRC's International Humanitarian Law database states under rule 55 that “The parties to the conflict must allow and facilitate rapid and unimpeded passage of humanitarian relief for civilians in need, which is impartial in character and conducted without any adverse distinction, subject to their right of control.”

The IFRC's International Disaster Response Laws (IDRL) guideline states that “states should facilitate freedom of access to and freedom of movement in and from the disaster-affected area, bearing in mind the safety of disaster relief and initial recovery personnel”. The IFRC project managers are fully aware of the significance of access and humanitarian space. This explains why the survey results rank this construct as the most influential external resilience predictor with a mean value of 5.07 (SD $\pm$ 1.261), as shown in Table 3.

Table 3. Mean value of access and humanitarian space

Items	M	SD
AHS1 The capability RC has to build strong networks that foster trust and a sense of community belonging.	5.19	1.217
AHS2 The acceptance of the RC auxiliary role by public authorities.	5.52	1.172
AHS3 Early acceptance of the crisis by the local government for an early response.	4.97	1.195
AHS4 The leverage on status agreements, which grant privileges and exemptions, such as waivers on non-tariff export barriers.	4.86	1.242
AHS5 Exemptions from border controls and other infection control measures.	4.48	1.315
AHS6 The recourse to Cash-Based Intervention to overcome restrictions on the movement of supplies.	5.01	1.169
AHS7 IFRC neutrality over geopolitical power dynamics.	5.48	1.190
Total Mean Score	5.07	1.261

Note: Scale references (1. Low – 7. High)

Paradoxically, the assessment by substantive significance classified this construct as unimportant with a nil effect size. This unexpected finding paves the way for further research. A possible explanation for the nil effect size may be that unrestricted access to the population in need is considered guaranteed, safeguarded, and enforceable by international treaties and conventions.

Despite these international commitments, humanitarian workers have reported being hindered by excessively strict COVID-19 containment measures (Betts et al., 2021). The IFRC may not have been significantly affected by movement restrictions. IFRC's actions are communicated through the national Red Cross or Red Crescent society, which relies on a strong

network of branches within communities. The Red Cross and Red Crescent emblems are widely recognised as symbols of trust and hope, as supported by survey results. The construct item RS3, which measures how much Red Cross volunteers are trusted within their communities, is the highest-rated item, with a mean score of 5.72 and a low standard deviation of ± 1.058 .

The design of the IFRC humanitarian response infrastructure can explain the low substantive significance of the construct “access and humanitarian space”. Indeed, where international intervention is impeded, the national society and its network of branches can be relied on as the first and sole responder. This finding aligns well with results reported about the localisation of aid. In fact, when humanitarian response is fully entrusted to local actors, IOs (International Organisations) should no longer be concerned about gaining more humanitarian space. However, aid actors should not always blindly rely on local actors in certain situations. Ostergard (2021) reported that during the Ebola response operation, access restrictions can result from denialism by public authorities. This leads to delayed commitments and assistance from both internal and external actors.

For political reasons, governments may minimise the seriousness of a disaster and avoid requesting a full international response. Every situation can be unique and must be treated accordingly. To gain acceptance and recognition from local authorities, emphasising collaboration rather than confrontation is crucial. When operating in a highly militarised or politically unstable environment, IFRC heads of delegation are expected to develop relational and diplomatic skills. These skills are essential for engaging with local governments with civility, provided the Red Cross's fundamental principles are upheld. However, the bargain for better access and a larger humanitarian space should never come at the expense of fundamental principles. IFRC's investments in this strategic resilience enabler will generate long-term returns, but only sustained effort will lead to success. The efforts made so far should be maintained, despite the inevitable setbacks and frustrations that may occur during the process.

3.2.2 Localisation of Aid

Due to increased travel restrictions, the pandemic has led to an expansion in local humanitarian efforts. One positive aspect of the pandemic crisis was the rare opportunity it provided to local actors to demonstrate their ability to respond quickly and effectively. Although aid actors have always theorised this, they have rarely tested it. According to the argument presented by scholars and as discussed by Barbelet et al. (2020), the pandemic provided an opportunity to advance localisation through systemic changes and reforms. These were long overdue in the humanitarian sector.

Despite challenges posed by the pandemic, the IFRC, a membership organisation with an extensive network of local Red Cross and Red Crescent Societies, maintained its service delivery even without an international presence. This study on localisation reminds humanitarian actors of the Grand Bargain pledge to accelerate the transfer of power structures. Local responders should be given more responsibilities and authority. Table 4 supports this conclusion with average ratings of several construct items.

Table 4. Mean value of the localisation of aid

Items		M	SD
LA1	The IFRC commitment to the Grand Bargain with direct project implementation by Red Cross/Red Crescent (RC) branches.	5.00	1.175
LA2	The actions taken to reinforce rather than replace the National RCs' action and leadership.	5.23	1.218
LA3	The rollout of the IFRC's Agenda for Change, including system configuration, structures, and incentives for locally led humanitarian delivery.	4.82	1.224
LA4	The measures taken aim to foster a greater appetite for risk and allocate more flexible funding to National RCs.	4.87	1.295
LA5	The deference to local expertise and community volunteers in responses and the use of international surge only when necessary.	5.00	1.233
LA6	IFRC plans are based on national COVID-19 response strategies.	5.17	1.253
LA7	The complementarity between IFRC and National RCs.	5.49	1.122
LA8	IFRC funding supports local government efforts.	4.76	1.42
LA9	Reliance on well-trained local community volunteers prior to the outbreak.	5.22	1.201
LA10	IFRC supports national RCs to receive more bilateral donations.	4.76	1.386
LA11	Greater acceptance of risk and risk-sharing by stakeholders at all levels, including donors, rather than pushing risk down to implementing partners.	4.60	1.276
Total Mean Score		4.99	1.282

Note: Scale references (1. Low – 7. High)

LA7 is the top-rated item, highlighting the importance of complementarity between IOS and local actors, as discussed by Bennett and Fast (2020). During a crisis response, the priority should not be debating or deciding whether the IFRC or the National RC will deliver aid. Synergies are found in the ability to collaborate and identify the most appropriate actor to lead on strategic engagement, humanitarian diplomacy, and early response. The IFRC has always responded in a localised manner, as all its programmes are implemented through and with its local Red Cross or Red Crescent entity.

Although IFRC has achieved success in localising aid, there is still significant potential for enhancement in the humanitarian sector overall. Good intentions often expressed in forums contrast with the ongoing practices of international humanitarian organisations like the UN, which have yet to carry out necessary reforms (White et al., 2022). Transforming a broad strategic vision into a practical method for humanitarian and development organisations is challenging.

To overcome what seems to be resistance to change or an ongoing transition, the COVID-19 mega-crisis serves as a catalyst for renewal. It encourages organisations to take more decisive steps towards the goals outlined in the Grand Bargain, which aims to localise at least 25% of humanitarian funding by 2020. If the IFRC aims to go beyond current localisation rhetoric and enhance collaboration with national Red Cross and Red Crescent societies, leadership should consider gradual decentralisation and more national society-led programmes.

Another advantage of localisation is reducing unnecessary control layers that often creep into disaster response processes under the guise of reinforced accountability and risk management best practices. The aim to strengthen control and oversight often results in bureaucratic burdens and delays, especially when leadership has a very low risk appetite in a high-risk environment.

One challenge to the complete transfer of leadership to national actors in operations might be the reluctance or hesitation of national societies themselves, which could resist or delay the move towards independence. This stems from a long-standing dependence on international support, resulting in a lack of confidence among local actors. This is a genuine concern that IFRC leadership and project managers must consider when designing capacity-building programmes. Otherwise, the transfer of expertise, resources, responsibilities, and accountability to national and local actors could remain superficial. This may result in the current situation continuing to dominate the localisation rhetoric. Aligned with the principles of Good Humanitarian Donorship, the donor community is also expected to support efforts to speed up the localisation process. The donor government should adopt a greater risk appetite, ease reporting conditions, and consider granting earmarking.

From the above, it can be concluded that the acceleration of the localisation process is not solely the responsibility of international organisations. Success relies on the collective efforts and contributions of all stakeholders. While some proposals from this study can be enacted in the short term, a change in mindset that speeds up progress towards localisation may take more time.

This study identifies localisation of aid as one of the most significant predictors of resilience, based on both statistical and substantive significance metrics. The IFRC leadership will gain by prioritising resource allocation in the variable of resilience, thereby showcasing its achievements to other organisations committed to the Grand Bargain.

3.2.3 Collaboration and Partnership

Collaboration and partnership are key variables for humanitarian organisations to ensure project financing remains viable, despite fund diversion away from vulnerabilities and crises before COVID-19. Amid economic crises and COVID-19 budget pressures, aid supporters considered invoking *force majeure* and withdrawing from non-COVID-19 commitments (Colombage et al., 2022). The success of humanitarian business continuity depends on working with national and local responders. Because of access issues, international aid agencies increasingly collaborate with local responders, who are best positioned to deliver aid. This aligns with the argument by Kamruzzaman and Kumi (2023), who stated that the development project should be led by those most suited to achieve the aims set by donors and governments. The IFRC network is inherently a model of effective collaboration and partnership. Indeed, the donor national societies within the membership are fully committed to delivering humanitarian assistance exclusively through the channels of the national Red Cross or Red Crescent.

This collaboration preference has been key to funding Red Cross projects during the pandemic. The most vulnerable national societies have benefited from solidarity within the

movement. This is because the risk of funding diversion was significantly reduced when partner national societies were required to prioritise funding for local Red Cross implementing partners. The frequency analysis of the survey results shown in Table 5 below supports this finding, with high mean ratings for items CP1, CP2, and CP3. These ratings specifically measure IFRC collaboration with donors, IOs, and National Societies.

Table 5. Mean Value of collaboration and partnership

Items		M	SD
CP1	The collaboration and partnership between IFRC and other humanitarian organisations.	5.10	1.173
CP2	The collaboration and partnership between IFRC and donor organisations.	5.54	0.993
CP3	The collaboration and partnership between IFRC and local responders.	5.27	1.238
CP4	The collaboration and partnership between IFRC and public authorities.	4.98	1.142
CP5	The collaboration and partnership between IFRC and corporate/private donors.	4.57	1.302
CP6	The collaboration and partnership between IFRC and academic institutions.	3.77	1.330
CP7	The coordination between IFRC country offices, regional offices and Headquarters.	5.55	1.181
CP8	The flexibility in donors' policies and regulations.	4.54	1.315
Total Mean Score		4.91	1.338

Note: Scale references (1. Low – 7. High)

Another notable benefit of the strong collaboration within the Red Cross movement is the record-high project expenditure achieved during the challenging period of limited funding, increased border controls, and movement restrictions. The COVID-19 crisis became an opportunity to provide more humanitarian services through successful collaboration. Internal collaboration within the IFRC hierarchy, from field offices to headquarters, has been rated as essential for resilience development, with a mean value of 5.55 (SD± 1.181). This finding emphasises the importance of the commitments made by the IFRC leadership to eliminate any bureaucracy or bottlenecks caused by different layers of authority. A notably low rating that falls below the midpoint highlights the collaboration and partnership between IFRC and academic institutions, with a mean value of 3.77 (SD± 1.330). It highlights the research gap in resilience and business continuity publications within the humanitarian sector, emphasising the current study's significance in addressing that gap.

Lokot and Wake (2023) linked the low rating to challenges in operationalising co-production between scholars and practitioners in humanitarian contexts. Barriers to collaboration mainly include time pressures, characterised by urgency and insecurity in emergency response settings. During emergency operations, it is vital to balance providing relevant and timely research findings with upholding rigorous and robust research methods. The Trump Administration's decision to stop aid in vulnerable areas serves as a wake-up call for humanitarian organisations. It underscores the urgent need to enhance advocacy with

policymakers who may not fully understand the long-term consequences of these decisions. Abrupt funding cuts risk undoing years of progress toward the Sustainable Development Goals (SDGs), particularly in fragile and conflict-affected areas.

To overcome these challenges, humanitarian workers and organisations should consider the following recommendations.

- Strengthen Evidence-Based advocacy: use data and real-life impact stories to emphasise the effects of aid cuts. Customise messaging to resonate with different political audiences by linking humanitarian outcomes to national security, economic stability, and global health.
- Engage in Proactive Policy Dialogue: Establish regular communication channels with local and international policymakers. By becoming trusted sources of information, humanitarian actors can inform and facilitate sustainable funding decisions.
- Diversify Funding Sources: Reduce dependence on individual donors by building relationships with a broader range of funders, such as private foundations, regional development banks, and pooled humanitarian funds.
- Build Local Partnerships: Empower and invest in local actors who can sustain service delivery and advocacy within their own political and cultural settings, even during funding interruptions.
- Utilise Public Support: mobilisation of civil society, media, and diaspora networks to increase public awareness and influence decision-makers. Public opinion can be a powerful lever in democratic settings.
- Scenario Planning and Risk Mitigation: Develop contingency plans that account for sudden policy shifts or funding reductions. This ensures continuity of essential services in high-risk settings.

In a rapidly changing global aid landscape, staying adaptable, informed, and strategic is vital to protecting vulnerable communities and sustaining progress.

3.2.4 Supply Chain Resilience

In its Agenda for Renewal, the supply chain function is strategically featured as a key enabler of the IFRC's advances towards Strategy 2030. The IFRC aims for its Global Humanitarian Services & Supply Chain Management (GHS&SCM) to be a cornerstone of its emergency response framework. The function is to deliver relief items and services in good condition, in the right quantities, at the needed places and times. Achieving such ambitions entails risks that could delay essential humanitarian services and undermine relief efforts. Walters (2021) suggests that fear can be alleviated by designing the humanitarian supply chain to be resilient enough to withstand stressors and risks like civil unrest, food crises, droughts, famine, and various natural and man-made disasters. However, many editorials argue that COVID-19 has been an unusual stressor that has tested the resilience of humanitarian projects.

The results of this study clearly demonstrate that the resilience of IFRC projects to the pandemic did not rely on the strength of their supply chain. The mean score is 4.54 (SD $\pm$ 1.315), indicating moderate significance and highlighting the challenges that IFRC project managers face in relying on supply chains as a resilience factor. Table 6 below shows that none of the construct items have a mean score of 5 on the rating scale. This suggests the project manager's dissatisfaction with the effectiveness of the IFRC contingency planning in anticipating severe disruptions such as the pandemic. It has been documented that the supply chain function is among the most affected by the implementation of travel bans, border controls, and import restrictions.

Table 6. Mean value of Supply Chain Resilience

Items		M	SD
SCR1	The flexibility in sourcing and delivery with recourse to local procurement in local markets.	4.71	1.328
SCR2	The facilitation of transportation by the authorities, allowing the movement of RC goods during the lockdown.	4.94	1.289
SCR3	A good preparedness with a pre-allocation of resources.	4.33	1.355
SCR4	A good programme anticipation with emergency distribution planning.	4.62	1.182
SCR5	An accurate forecasting of pandemic propagation.	4.38	1.310
SCR6	A good modelling of pandemic scenarios and supply chain structural dynamics.	4.39	1.285
SCR7	IFRC creates internal awareness for Supply Chain disruptions and makes attempts to drive this awareness to employees	4.50	1.369
SCR8	IFRC analyses and assesses both the probability and the impact of Supply Chain potential disruptions.	4.50	1.290
SCR9	IFRC improves its Supply Chain disruption prevention capabilities.	4.45	1.317
SCR10	IFRC engages in contingency planning to prepare for potential Supply Chain disruptions.	4.56	1.300
Total Mean Score		4.54	1.315

Note: Scale references (1. Low – 7. High)

Based on substantive significance, supply chain resilience is ranked as the fifth most important dimension, with an effect size of 0.007. This is despite Negi (2022) arguing that humanitarian logistics significantly predominates (80%) in response activities. SCR3 is the lowest-rated construct item with a mean score of 4.33 (SD $\pm$ 1.355), indicating a lack of preparedness in pre-allocating resources. Early sourcing and prepositioning of strategic stocks presents an opportunity for improvement. The limitation could be correlated to the challenges in planning, as effectively discussed by Ioannidis et al. (2020), when questioning the rationale for an organisation to prepare for an event with a 0.1%, 0.001%, or even a 0.000000000001% chance of occurring.

The absence of plans to address the cascading effects, which Judek et al. (2019) urge crisis managers to consider, is also worth noting. It is apparent that the pandemic must have been

overlooked by the IFRC disaster scenario planning when informing the strategy on supply chain management. Humanitarian service delivery can be improved by decentralising tactical decision-making closer to disaster-affected districts, given the importance of timeliness and efficiency in humanitarian logistics for project resilience. That is what Negi (2022) recommends to practitioners through an approach focused on disaster-prone areas. Therefore, the IFRC may consider boosting humanitarian logistics funding via its Early Action Protocol (EAP). In disaster-prone areas, anticipatory measures like IFRC Forecast-Based Financing can be used to enhance project resilience.

3.2.5 Sustainable Development Goals (SDGs)

The 2030 Agenda for Sustainable Development Goals (SDGs) has been in effect for 9 years since its adoption by the United Nations. The impact of the COVID-19 pandemic on good health, well-being, SDG-3, and climate change, SDG-13, has been a focus of research for many scholars. In these specific humanitarian and development goals, the long-term projections regarding the achievement of the SDGs by 2030 are pessimistic (Zyoud, 2022). The potential for delays indicates a need to reassess the development plan and schedule. Even more alarming is the possibility of undoing progress on the socio-economic and environmental pillars of the SDGs. The pandemic crisis is expected to undermine progress across various development targets. The ensuing consequences in the humanitarian projects ecosystem are predicted to be severe.

The health crisis and its cascading impacts have heightened vulnerabilities among the most at-risk groups, such as victims of domestic violence (Basudas, 2021). It has also increased the pressure on humanitarian efforts focused on reducing poverty, as well as health and nutrition programmes not related to COVID-19 (Abidoye et al., 2021). The change in development funding priorities has been an aggravating factor hindering progress towards the achievement of SDGs (Colombage et al., 2022). The pandemic has undone about a decade of global progress in reducing poverty (Mestdagh et al., 2023). Backsliding on progress towards the SDGs not only risks worsening basic humanitarian vulnerabilities but also weakens societies' resilience to future hazards, especially in low-income settings with limited coping capacities (Mestdagh et al., 2023).

The pessimism in the above publications contrasts with the survey results. It indicates that humanitarian practitioners do not seem overly concerned about the negative impact delays on SDGs might have on project resilience. The impact of progress towards SDGs on resilience development was not rated highly by the IFRC survey respondents (Mean 4.33; SD ± 1.337). The details of the rating are provided in the frequency analysis listed below (Table 7).

All individual construct items have a mean score below 5. This confirms the common tendency among humanitarian project managers not to regard any construct without an immediate impact on resilience building as very influential. Amid the health emergency and severe socio-economic impacts, respondents seem to believe that any mid- to long-term development goals with a 2030 deadline should not be prioritised over resilience contributors and investments that provide immediate short-term benefits for sustainability. Indeed, it can be

accepted that efforts to advance the SDG agenda may be temporarily paused to focus on addressing urgent, complex challenges causing the health and socio-economic crisis. This finding on the practitioner's perception aligns with the viewpoints of several scholars.

Table 7. Mean value of SDG

Items		M	SD
SDG1	The systematic prioritisation of resource allocation between SDGs (Sustainable Development Goals)	4.28	1.285
SDG2	The investment in SDG synergetic goals.	4.28	1.291
SDG3	The coordinated global effort to achieve the SDGs.	4.40	1.341
SDG4	The assessment and understanding of the pandemic's impact on SDGs.	4.26	1.385
SDG5	The opportunity and momentum given by the pandemic for more investment in SDGs.	4.45	1.369
Total Mean Score		4.33	1.337

Note: Scale references (1. Low – 7. High)

Filho et al. (2020) affirm that the unexpected crisis caused a major reshuffle in development priorities, shifting focus away from the urgency and importance of advancing towards the SDGs, and redirecting efforts entirely towards pandemic recovery. According to the author, this shift in priorities can be observed at all levels (national governments, international organisations, etc). This consensus among scholars and humanitarian professionals does not diminish the importance of SDGs as significant external indicators of organisational and project resilience. The critical reading of the analysis and results by substantive significance identifies SDG as the 6th most fundamental predictor of resilience ($F2 = 0.006$). This measurement shows that the IFRC leadership should continue to work towards influencing and progressing the SDG agenda, even though their current priority is on containing the pandemic and reducing its impacts.

Such efforts by all humanitarian organisations are vital considering the recent emerging idea and advocacy for SDG revision, which could result in a de-prioritisation of humanitarian-related goals. Indeed, many authors concur that the COVID-19 emergency underscores the need to revise the SDGs for more realistic and achievable aims (Mestdagh et al., 2023). The IFRC leadership can turn the pandemic crisis into an advocacy opportunity, highlighting the vital role of humanitarian programmes in community resilience amidst calls for development reforms.

3.2.6 Socio-Economic Reforms

The COVID-19 crisis turned the socio-economic performance indicators red for several countries. Authors such as Costa et al. (2021) emphasise the need for policymakers to balance social, economic, and health strategies in the new normal to mitigate increasing vulnerabilities among underprivileged populations worldwide. The resulting effect would be a more conducive environment where the achievements of humanitarian project managers are not undermined by new vulnerabilities arising from economic crises.

IFRC survey respondents do not appear overly concerned about these macroeconomic dynamics. Respondents' feedback indicates that any stimulus that does not have an immediate impact on the organisation's resilience is regarded as moderately effective in support of the proposed research hypothesis. Based on the metric of statistical significance shown in Table 8 below, the "socio-economic reforms" is the lowest-rated resilience factor, with a mean of 4.18 (SD $\pm$ 1.259).

Table 8. Mean value of socio-economic reforms

Items		M	SD
SER1	The introduction of special economic programs and packages by supranational agencies such as the World Bank to support fragile economies.	4.27	1.174
SER2	The relief of external debt burdens by developed countries and international institutions, such as the World Bank and the IMF, for poor and developing economies.	3.94	1.324
SER3	The global collaboration for coherent international reforms.	4.30	1.297
SER4	The innovative macro-economic and monetary reforms adopted by the public authorities.	4.04	1.254
SER5	The resilience of social and economic ecosystems surrounding affected communities.	4.35	1.188
Total Mean Score		4.18	1.259

Note: Scale references (1. Low – 7. High)

This is by no means a suggestion for the IFRC leadership to deprioritise investment in humanitarian diplomacy efforts aimed at influencing policymakers. Indeed, a ranking based on effect size places Socio-Economic reform among the top four most important resilience predictors ($F_2 = 0.0219$). This finding confirms the prediction of Barua (2020) that the sustainability of humanitarian organisations will depend heavily on the post-COVID-19 macroeconomic conditions. Without substantial reforms, the most resilient organisation will be drawn into the chaos caused by major economic shocks, exposing projects to external realities that will inevitably emerge in a panic-driven environment. The long-term benefits of resilience development depend on persistently pursuing humanitarian diplomacy and strategic engagement with donors and policymakers.

The significance of proposed resilience enablers will evolve, influenced by emerging threats, vulnerabilities, nationalism, and shifting geopolitical interests impacting international solidarity. The COVID-19 pandemic provided a real-world context for risk analysts and resilience planners to evaluate resilience enablers suggested by scholars. It posed an unprecedented challenge for humanitarian actors, who had to simultaneously manage funding cuts, increasing vulnerabilities, and strict access restrictions. The organisational resilience traits and attributes identified during such extreme conditions are likely to remain relevant in future disruptions. These traits are especially vital in situations like sudden aid funding suspensions—such as those experienced under the Trump Administration—or the growing vulnerabilities and access issues in regions like Gaza. Key resilience enablers such as stronger collaboration, active humanitarian diplomacy, and reliance on local responders will continue to be vital for maintaining humanitarian efforts amid stress.

4. CONCLUSION

This article provides important theoretical insights and contributes to the literature by exploring resilient predictors believed to be the most influential in the development of project resilience within the humanitarian sector. In the absence of a comprehensive theoretical framework for organisational resilience, the present study supplements and extends previous findings on antecedents and drivers of resilience. It expands on contingency theory to include resilience predictors related to external factors in the organisation's environment and beyond the direct control of the organisation's leadership. It should guide further research efforts in the aid sector where business continuity is not just about organisational sustainability, but about saving lives.

In light of recent decisions by the Trump Administration to cut aid funding from high-vulnerability settings make this research even more relevant. Such abrupt policy changes emphasise the urgent need for humanitarian organisations to incorporate resilience thinking into every level of project design and organisational planning. This paper expands current understanding by introducing a hierarchy of resilience enablers, designed to aid in prioritising investments. It also provides evidence supporting the relevance of humanitarian project proposals before funding partners.

Once the key resilience factors are identified, humanitarian leaders can make informed decisions when donor fatigue leads to disinvestment, especially in maintaining aid delivery during prolonged crises. When looking for areas to save money, leadership might be tempted to cut capacity across functions without discrimination. However, without proper analysis of the long-term implications, such reductions can significantly weaken both project and organisational resilience. This study offers guidance for change managers by outlining a hierarchy of the most significantly important resilience factors that must be preserved.

In practical terms, aid organisations should:

- Develop resilience-focused funding strategies that diversify donor bases and integrate contingency reserves.
- Institutionalise risk scenario planning that anticipates political and donor volatility.
- Ensure evidence-based prioritisation of core operational capacities that sustain project delivery during crisis conditions.

The findings from this study should help strengthen the basis for future research on project and organisational resilience and provide practical insights for humanitarian actors dealing with unpredictable funding environments.

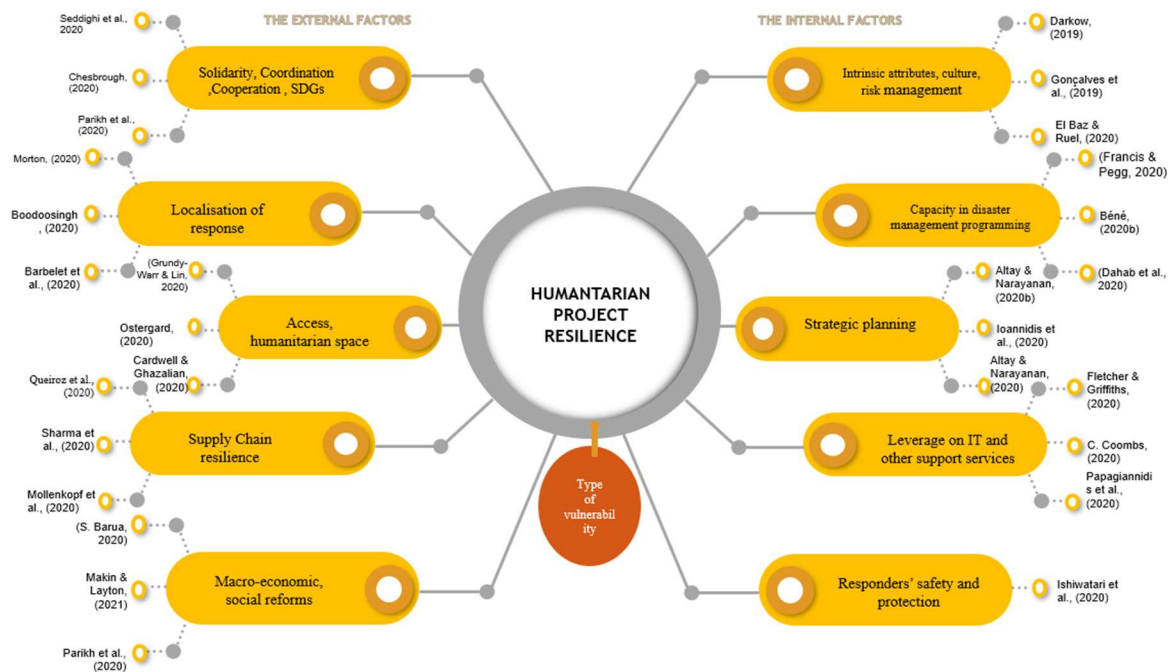
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APPENDIX I: Mind Map of the Dimensions of Resilience Predictors



APPENDIX II: Normality Test

NORMALITY TEST: CUT OFF VALUES

1. Univariate Normality (Curran et al., 1996)

Univariate Skewness $\leq \pm 1$

Univariate Kurtosis $\leq \pm 7$

1. Multivariate Normality (Kline, 1996)

Univariate Skewness $\leq \pm 3$

Univariate Kurtosis $\leq \pm 20$

Skewness and Kurtosis

Output of skewness and kurtosis calculation

Sample size: 331

Number of variables: 12

Univariate skewness and kurtosis

	Skewness	SE_skew	Z_skew	Kurtosis	SE_kurt	Z_kurt
Access. Humanitarian.space	-0.339	0.134	-2.527	-0.075	0.267	-0.281
Collaboration.Partnership	-0.236	0.134	-1.760	-0.242	0.267	-0.907
Culture.to.risk.management	-0.362	0.134	-2.699	-0.418	0.267	-1.564
Expertise.in.programming	-0.433	0.134	-3.234	0.182	0.267	0.681
IFRC.projects. Resilience	-0.609	0.134	-4.545	0.748	0.267	2.798
Leverage.on.support.services	-0.523	0.134	-3.901	-0.136	0.267	-0.510
Localization.of.aid	-0.579	0.134	-4.317	0.318	0.267	1.191
Responders.safety	-0.520	0.134	-3.877	0.106	0.267	0.396

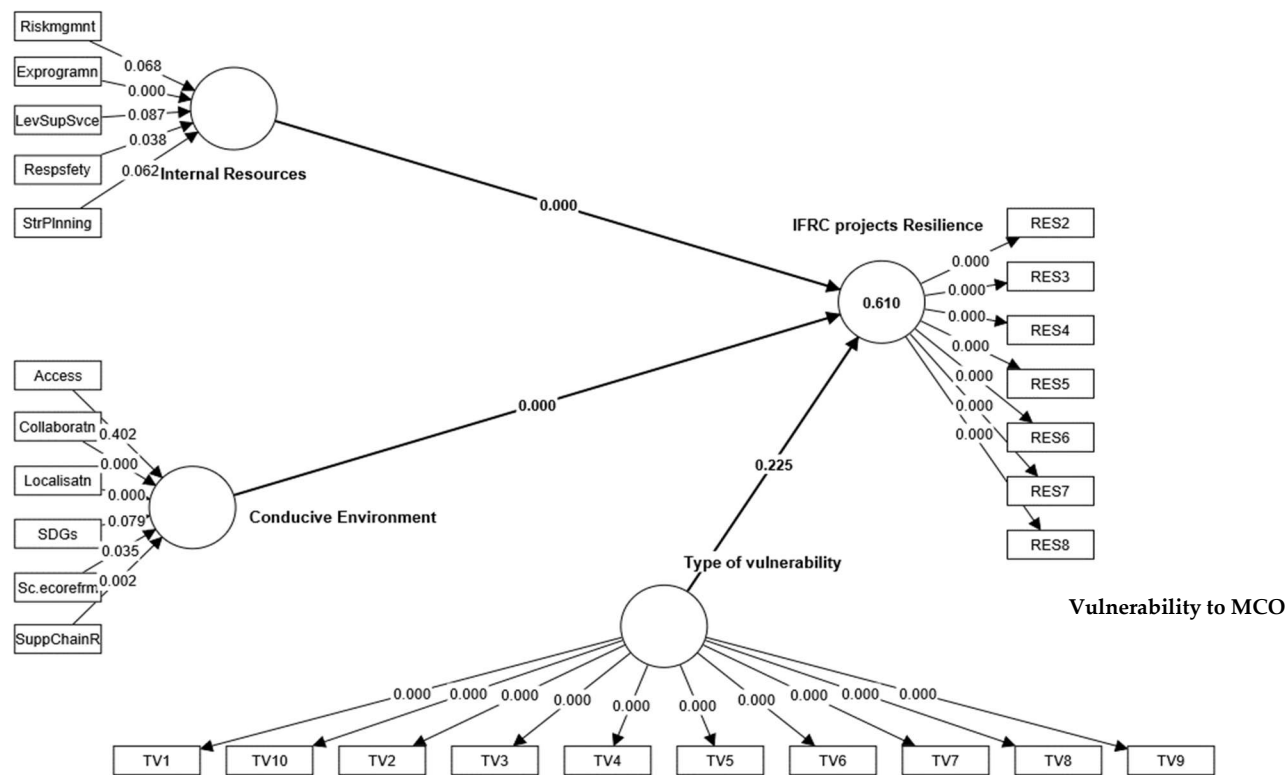
SDGs	-0.331	0.134	-2.468	-0.050	0.267	-0.186
Socio.economic.reforms	-0.158	0.134	-1.182	0.021	0.267	0.079
Strategic.Planning	-0.257	0.134	-1.919	-0.507	0.267	-1.896
Supply.Chain.Res	-0.395	0.134	-2.948	0.040	0.267	0.150

Mardia's multivariate skewness and kurtosis

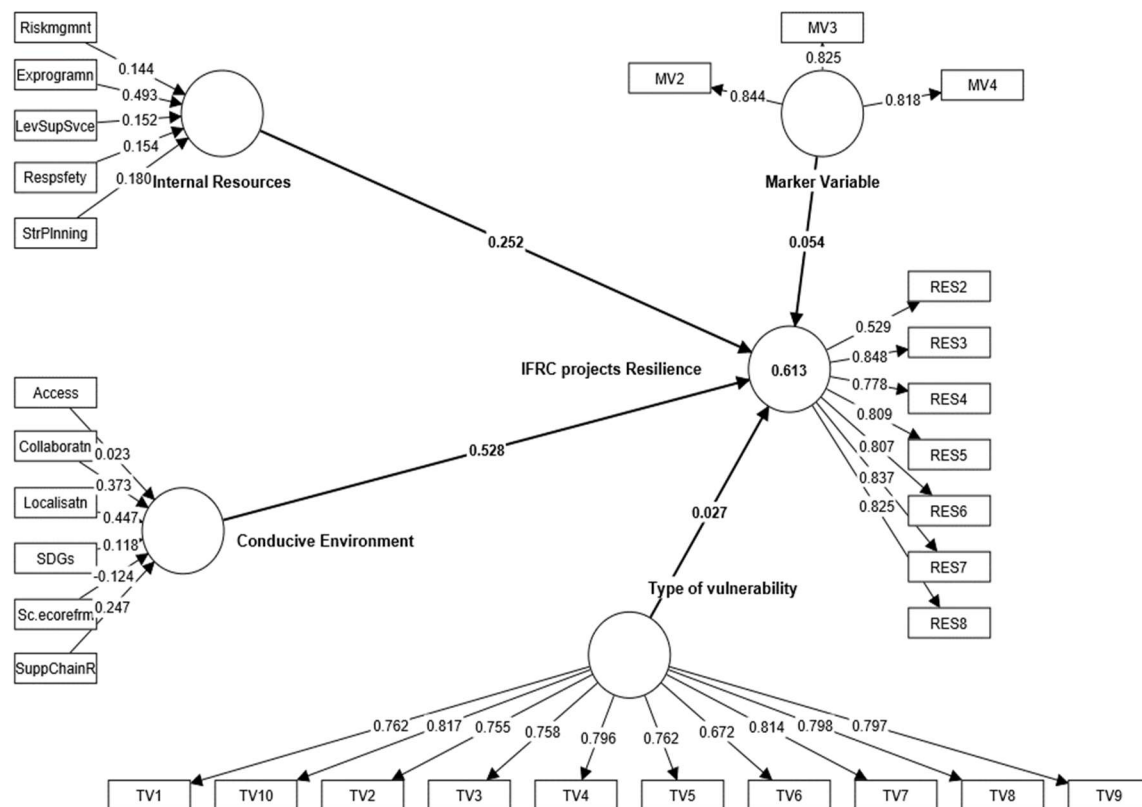
	B	z	p-value
Skewness	16.43488	906.6578	0
Kurtosis	204.81862	18.27182	0

The results reveal that the data under review are not multivariate normal with Mardia’s multivariate skewness ($\beta = 16.434$, $p < 0.01$) and Mardia’s multivariate kurtosis ($\beta = 204.818$, $p < 0.01$) compared to skewness in -2 and +2 and kurtosis in -7 and +7 by Hair et al. (2010) or other scholars (Appendix V).

APPENDIX III: Reflective-Formative Stage One Specification of IFRC Projects Resilience and PL S-SEM Results (Bootstrapping)



APPENDIX IV: Assessment of Common Method Variance



APPENDIX V: Normality Test

NORMALITY TEST: CUT OFF VALUES

1. Univariate Normality (Curran et al., 1996)

Univariate Skewness $\leq \pm 1$

Univariate Kurtosis $\leq \pm 7$

1. Multivariate Normality (Kline, 1996)

Univariate Skewness $\leq \pm 3$

Univariate Kurtosis $\leq \pm 20$