

# Impact of Individual Resilience on Organisational Resilience: An Exploratory Study

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**Abstract**—The built environment is designed, maintained, operated, and decommissioned by construction organisations, which play a significant role in providing physical resources and rebuilding infrastructures during major crises and disasters. It is evident that enhancing the resilience of construction organisations allows better responding ability and speedy recovery from disasters and acts as a boon for the nation in the face of significant disruptions. As individuals are the integral component of any organisation, hence, individual resilience is considered a critical aspect, which may boost organisational resilience of construction sector. It has been observed that individual resilience is indirectly supported by organisation's citizenship behaviour, job performance, and career success. Not only this, it also tends to hold a directly proportional relation with job satisfaction, physical and emotional well-being affected by organisation's work culture, whereas the resilience of organisation increases as a result of positive adaption, growth and collective learning of the employees as an entity. Moreover, indicators like situation awareness in staff and crisis related issues, effective vulnerability management, organisational leadership and culture ensured by approachable, encouraging and people-oriented leaders, are prominent for achieving organisational resilience. It, thus, becomes perceptible that both, organisational and individual resiliencies, have the potential to influence each other. Consequently, it arises a major question that how these characteristics are associated and tend to behave with respect to each other. The study, thus, aims to explore the overlapping dimensions of organisational and individual resilience to determine the impact boundaries. The research methodology of the paper would be based on systematic literature review specifically focused on the resilience of construction industry. This would provide a direct comparison of characteristics influencing individual and organisational resilience and will present the most significant indicators of individual resilience that can eventually help to enhance the resilience of construction organisations amidst any disaster or crisis.

**Keywords**—Construction industry, individual resilience, organisational resilience, overlapping dimension.

## I. INTRODUCTION

GLOBAL financial crisis, market demands, pandemic situations and extreme weather events have been impacting countries, companies and individuals at all levels (e.g. [1]-[3]). Owing to these adversities, the resilience of construction sector has gained a lot of attention since the past few decades. The reason is its major role in the nation's economy and to carry on recovery activities post-disaster or

crisis. Not only this, but the construction organisations also influence communities and helps the government to achieve their policies [4]. In order to stand against these disasters, the construction organisations need to be resilient as they can respond and recover against fluctuating scenarios. They plan, design, construct and operate necessary risk reduction infrastructure along with other services to protect the communities exposed to hazards [5]. Resilient organisations are able to recover from adversities to a balanced state, sustain shocks, and even develop new skills and abilities to achieve breakthrough growth.

Organisational resilience is also perceived in terms of employee strengths, as employees are the ultimate executors of organisational strategy. Their behaviour, knowledge and self-regulating features impact the responding abilities of the organisation amidst crisis or disaster. Resilient employees are, thus, considered essential for developing a positive organisational response to counter-act complex events. Employee resilience results from an individual's personality and dynamic ability to interact with the environment to accomplish organisational goals as well as their growth. Resilience in the human context has been observed as the "capacity to stay flexible in thoughts, feelings, and actions when faced by life disruption, or pressurised situations" [6, p.2].

Reference [7] states that employee resilience is channelised in terms of workplace behaviours and can enhance organisational resilience [8]. These two levels of resilience are mutually reinforcing, which implies their significant dependence on each other. Thus, our study aims to investigate that how and why these two concepts affect one another.

## II. THEORETICAL FRAMEWORK

### A. Individual Resilience and Organisational Resilience

Organisational resilience is an organisation's ability to anticipate, prepare, respond to, and adapt to sudden risks and disruptions to survive and thrive [9]. It improves an organisation's ability to withstand emergencies [10] and imparts long-term competitive advantages [11].

To assess the level of resiliency an organisation possess; it is often measured on the basis of attributes that a resilient system must acquire. Organisational resilience was assessed using the dimensions of change capability, social relationships,

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organisational commitment, reality perception and team cohesion [12]. Later, [13], in his study on Organisational and Community Resilience, described the four dimensions of a typical resilient organisation as robustness, resourcefulness, redundancy and rapidity. Using the grounded theory method, [14] explored organisational resilience in New Zealand and mentioned that organisational resilience should include situational awareness, management of keystone vulnerabilities and adaptive capability. It was also observed that a resilient organisation must have the three attributes of readiness and preparedness, response and adaption and recovery/adjustment [15]. Further, [16] developed a broader scale for organisational resilience, including the attributes of competence orientation, deep social, agility, capital, practical habits, behavioural preparedness, and extensive resource network. Moreover, [17] also presented a three-dimensional structure of organisational resilience namely robustness, agility and integrity. The factor of robustness describes the organisation's capability to survive, sustain and recover from unfavourable conditions. Agility assessed the organisation's capability to take rapid actions and integrity indicates the cohesion among the workforces in the organisation. These system-based factors act as an important toolbox to quantify organisational resilience. From a strategic perspective the measure for organisational resilience is based on situation awareness and long-time planning for organisation.

While organisational resilience may be observed as a capability manifested at the organisational level, it cannot exist in absence of resilient individual employees and groups/teams. At an individual level, resiliency illustrates how individuals can overcome adversity and trauma. Basically, resilience is the potential of an individual to exhibit resourcefulness by utilising all available resources in response to existing challenges [18]. Individuals who are personally resilient can utilise their proactiveness, prudence and long-term orientation to help the organisation prepare for acute shifts and risks. They can even deploy their diverse of skills, risk tolerance and abilities to promote redundancy, diversity, and modularity in the organisation.

Moreover, the imagination and innovation quotient of the resilient employees can enable the organisation to redefine its industry for the future. Reference [19] highlighted the noteworthiness of individual resilience as individuals are an integral component of the organisation. Consequently, individual resilience and organisational resilience are inter-linked and reciprocally influence one other. It also directs us to the fact that an organisation can only be as resilient as its individuals [20]-[23]. Thus, understanding individual resilience is only a starting point to understand organisational resilience.

#### *B. An Overview of Key Indicators of Organisational Resilience and Individual Resilience*

Reference [24] identified 13 key indicators for organisational resilience for benchmarking the resilience of organisations in New Zealand. These indicators are divided into three groups, leadership and culture; networks; and change ready. These groups include Leadership, Staff engagement, Decision-making, Situation awareness and Innovation and creativity in

leadership and culture category. The network group comprise of Effective partnership, Breaking silos, Leverage knowledge and Internal resource. Whereas, Change ready is based on Unity of purpose, Planning strategies, Proactive posture and Stress testing plan. The Resilience Benchmark Tool helps construction organisations to analyse their ability to adapt and respond to a disaster. It also enables the organisations to monitor processes over time and compare resilience strengths as well as weaknesses against other organisations. Reference [25] described control as an important indicator of organisational resilience. Additionally, some other indicators for resilient construction organisations are strong leadership, awareness and understanding of their operating environment, ability to manage vulnerabilities and adapt in response to changes [26].

Organisational resilience is also visualised in terms of employee strengths as employees are the ultimate carrier of organisational capabilities. The resilient employees utilise their abilities to allow the organisation to respond effectively and absorb the prevailing disturbances [8]. Therefore, it is evident that a critical source of organisational resilience capacity lies in employees' characteristics [27], [28]. The analysis of [29] on stressful events and human personality suggested that commitment and the tendency to view change or stress as an opportunity are crucial for developing resilience among individuals. Reference [30] validated it and found that having a valued and clear purpose, and adhering fully to a goal, can markedly strengthen one's resilience. Furthermore, [31] enlisted indicators of individual resilience as engaging the support of others, Personal or collective goals, Self-efficacy, Strengthening effect of stress, Past successes or experiences, Sense of humour and most importantly, Adaptability to change. Along with this, Patience and Tolerance of negative affect is indeed recognised as an effective tool in handling traumas [32]. Adding to it, the role of faith and a belief in luck or optimism are important factors in the survival of the expedition, suggesting a spiritual aspect supporting resilience. There are certain skills as well which can help individuals to enhance their resilience like effective communication, goal setting, problem-solving, emotional regulation and stress management, building a social support network, practicing self-care, developing meaning and purpose in life, adopting a positive outlook, improving self-awareness, adopting effective coping strategies [15], [30], [33]. Reference [34] highlighted the role of the Person-Environment Relationship, Appraisal and Coping techniques in empowering individuals to achieve resilience. Moreover, stress-coping ability and positive psychology are indeed necessary as they are concerned with people's strengths and determine how they grow and thrive [28].

As individual resilience is a prerequisite for construction organisational resilience, and it is needed by organisations to cultivate resilient workforces. To better understand how organisations and individuals affect each other, it is important to visualise their common indicators. Thus, based on the existing literature, the study discusses the overlapping dimensions and their limit of extent to get a detailed insight of crucial components of individual as well as organisational

resilience.

### III. RESEARCH METHODOLOGY

The method to conduct this study is based on a systematic literature review which is fundamentally a synthesis of primary research that presents clear topics and problems, accompanied with critical analysis. Systematic reviews help in presenting more balanced facts by comprehending and integrating the findings of primary research. Thus, the selection and analysis of primary studies is the basis of a quality systematic review.

The review entails searching reliable and relevant literature from ScienceDirect and Google scholar, using various single and combined keywords like resilience, individual, organisational or organisational, indicators, crisis, disasters searched through Boolean operators. The time span of the study was 2002-2023. In the course of research, few more articles and research papers were included because of their relevance. The type of source for conducting the review included conference papers, journal articles and books. The language criteria for the search were limited to English.

In the first stage, 358 papers were identified and gathered after being subjected to all the inclusion and exclusion criteria. Out of which, 98 papers were found to be common and were removed. The remaining papers were screened in a step-wise manner which involved analysis of paper title, abstract and full paper. As a result, 56 papers were found to be completely eligible for the study, along with 15 more papers from other sources like citation searching and websites. Therefore, total studies retrieved and reviewed were 71.

### IV. OVERLAPPING INDICATORS OF INDIVIDUAL AND ORGANISATIONAL RESILIENCE

#### 1. Work Environment and Organisational Culture

Individual and organisational levels interact and support each other to produce resilience [19]. Individuals gain strength from the organisation's climate as a whole, and in response, organisations are benefitted from the enhanced capabilities of the individuals. Through work environment, we refer to an open and trusting space where staffs are motivated to generate new ideas, time and resources are provided for experimentation, innovation is rewarded, psychological aid is given and tolerance for failure exists [35], [36]. Such an atmosphere makes employees feel safe to acquire, disseminate and execute new strategies. As per [37], workplace factors like positive learning culture are positively related to employee resilience. Not only this, but it also nurtures innovation and creativity, promoting organisational resilience [38].

Hence, a work environment that encourages the ability to identify, assess, and break down problems to generate potential solutions can bridge individual and organisational resilience. It also provides a comfortable space to its workers, which helps them to think and perform beyond their conventional boundaries. There might exist some possible scenarios like a high work pressure environment that does not consider the personal life of the employees, may cause erosion of the personal resources of even the most resilient employees.

Moreover, if there are individuals with disparate views or antagonistic behaviour, can still hamper the organisation despite the presence of a rich work environment.

Thus, the possible extent of this overlap could be the existence of individuals with team spirit and those who acknowledge their responsibilities towards the organisation without being self-centred. Moreover, the spirit of appreciating someone's effort, learning from challenges, and continuously improvising oneself to achieve organisational goals creates a positive work environment. Along with this, the organisation that allows open communication, takes care of their employees' mental well-being and is flexible to support their social and family responsibilities constitute organisational culture and promotes individual as well as organisational resilience.

#### 2. Leadership Practice at Individual and Organisational Level

Organisational resilience is the ability of the organisation to manage and sustain during a crisis or disaster. This can be ensured through various approaches including strong organisational leadership practice which can maintain worker's commitment and lead to overall goal achievement in adverse scenarios [34]. Organisational leadership refers to the ability of leaders to carry along the entire unit as an entity on the principals of shared values, commitment and teamwork amongst organisational members. A resilient leader promotes organisational leadership by helping individuals and teams stay motivated and developing a culture of trust and confidence. Reference [39] described confidence, feeling of control, commitment to the task, and readiness for a challenge as the four Cs of mental toughness that closely align with individual resilience. Mental toughness has been observed as self-assurance in our abilities and dealings with others. Those who lack confidence often perform less well and have a negative attitude towards self-worth. Therefore, leaders must encourage the development of new ideas and creativity to combat problematic situations [40]. Most importantly, they play a vital role in empowering the members to take on leadership roles in their areas of expertise, which eventually promotes leadership at individual level. Individuals who possess strong leadership qualities are confident to step forward and take charge, even if they are not in a formal leadership position. This influences not only their decision making but also responding ability.

It is quite evident that organisational and individual resilience overlap on the point of leadership and it is essential that a leader is self-confident, it is requisite that he/she is perceived so by workers [41]. Such leaders are usually admired and trusted; and generally, have a high standard for moral and ethical conducts [42]. This ignites individual as well as team spirit amongst the followers [43]. Thus, the extent of the overlapping could be the presence of resilient and caring leaders who can strike a perfect balance between leadership style and subordinates' readiness causing a higher level of satisfaction and performance among the individuals. Moreover, it is worth notifying that individuals are more responsive to negative than to positive events, so, if the leaders turn out to be negative and have abusive supervision, it may flow down organisational

levels to undermine follower's efficiency and functioning.

### 3. Social Support (Engaging the Support of Others) and Communication

Social connections play an important role across numerous aspects of people's lives and is a key driver of wellbeing and resilience [44], [45]. It has been observed that socially well-connected people are much happier and are better able to take charge of their lives. They are much competent in finding ways through the problems they are facing. Social support includes emotional support, which refers to the love, support, sympathy and understanding for one another. Instrumental support is also a kind of social support which focuses on help with practical things, like financial assistance, material resources or any other sort of help. Lastly, informational support is a form of support that equips the individuals with important details and insights to help them deal with adversities [46].

Social support relates to an improved mental health through the explicit benefit of social relationships and the implicit benefit of a "buffer effect" against stressful situations has been identified [47]. Low levels of social support link with an increased risk of depression due to occupational stress and common psychological distress [48].

Similar to the social support, which is the help that individuals get from their peers, family or contemporaries to cope with stress and trauma, the organisations also collaborate with other organisations and share resources to solve challenging problems [49]. Reference [50] illustrated that the capacity for coordination depends on effective communication. In case of hurricane Katrina, communication and collaboration created the sense of unity of purpose among different components of an interacting system. The feeling of shared meanings aligns the organisation's priorities for action and reinforces the likelihood of achieving a common action framework. Moreover, it allows organisations to pool knowledge and resources to solve challenging problems [49] and also increases the capacity for adaptive performance under dynamic conditions. Thus, creating and maintaining resonance among the organisation are central to achieving effective crisis management strategies, which is an important part of organisational resilience.

However, it should be well understood that the term coordination assumes that the participating actors align their functioning voluntarily. If it does not happen, then it may breed discontent, frustration, and ineffective performance in any group or organisation. Considering about individual resilience, authors have posited that some forms of social support may in fact reduce wellbeing by lowering recipients' sense of control and self-confidence [51], [52], making them feel indebted [53], or reinforcing dependency [54]. It implies that behaviour signalling a negative emotion while giving social support like giving derogatory comments or pinpointing someone's mistakes may undermine the value of social support for wellbeing [55]. Thus, extending help to one another, be it at the individual level or organisational level, enhances resilience but the boundary condition is that it only yields the result when

everyone joins willingly and do not demean the sense of control and self-confidence.

### 4. Adaptability and Change Readiness

Adaptation for individual in the workplace is a multilevel phenomenon which can be described in terms of performance like action, response, and result [56]. As an important component of overall employee performance, the adaptive performance refers to the ability to change one's behaviour to meet the needs of a new environment. Also, it is considered as an emergent process which is based on interaction through cognitive and behavioural goal-directed action to keep up with the requirements of the environment [57]. Successful adaptive performance of individuals in a firm with complex and volatile business conditions affirms that the individual is able to effectively handle uncertain and unpredictable work situations. It may be a result of organisational restructuring, a change in goals, or a challenge to available resources [58], [59]. Adaptive behaviours at individual level can be considered as being proactive, reactive and tolerant [60]. Moreover, [61] conducted a study on adaptive performance, which was based on some distinct professional activities like, creative solving problems, dealing with uncertain work situations, learning ability, demonstrating interpersonal and cultural adaptability, handling work stress, managing emergencies and crisis etc. These activities are directly related to resilience indicating, adaptability and resilience are entirely intertwined. It can be attributed to the fact that resilience is the ability to recover from difficulty and bounce back, whereas adaptability is learning from old experiences and using them to form a new, more positive outcome.

From organisational perspective, adaptive capacity denotes the ability of a system to adjust, modify or develop its characteristics to moderate potential damage, utilize opportunities or cope with the consequences of disruptive events. A resilient organisation can handle internal abruptness caused by the external environment by changing itself [62]. It involves adapting to resources, situations, interpersonal processes and organisational routines to combat the impacts of a shock [63], [64]. Moreover, a key characteristic of adaptive capacity is related to the system's ability to encourage innovation and support new trends or practices [65]. As per [66], the benefit of having adaptability culture in organisations is that it promotes more readiness and commitment to change among organisational members. This allows them to exhibit cooperative behaviour, and high influential championing practices. Hence, for an organisation to be resilient, it must develop the ability to adapt and reorganise to withstand disruption and change.

Adaptations may have both positive and negative impacts on individuals and organisations at different levels [65]. To understand the overlapping boundary of the adaptive capacity, it is crucial to recognise the significance of numerous intangible processes like decision-making and governance; innovation practices, experimentation and opportunity look out, plus the structure of institutions and entitlements. Establishing such processes, often, require constant effort and is time consuming

as well. Therefore, patience and consistency are crucial for fostering adaptability. No adaptation strategy can be successful without ensuring proper availability of financial reserve, resources, technology, innovation and clear understanding of responsibilities, which must be provided by the organisation to empower individuals. Also, interventions to facilitate adaptation vary considerably in type, size and scope of the organization which indicates that the organisation must plan their own adaptation process as it acts as a foundation for individuals to develop their own adaptability and resilience. An individual's ability to adapt and thrive during periods of change helps them embrace new processes or technologies. They even play a vital role in shaping organisation's crisis management strategies during tough times. Therefore, to ensure that organisations adapt successfully and maintain resilience, individuals must establish proper communication channels to avoid creation of silos and any kind of hinderance to knowledge sharing.

#### 5. Recognition of Limits to Control

In the dynamic and uncertain scenarios of disaster operations, it is necessary for organisations to have a strong control on the prevailing environment to absorb their negative impacts. As per [50], control refers to the capacity to keep organisation's response focused on the shared goal of protecting property, lives and maintaining continuity of actions. Further, it allows to focus on the critical tasks that will bring the event to a non-escalating and less destructive state. Thus, the purpose of control is to change the consequences of the event from being unforeseeable to become foreseeable and predictable [25]. Evidently, any loss of control during an unexpected situation will shift a well-established and stable organisation to an unstable one. Primarily, control is maintained through commonly acquired skills, shared knowledge, and reciprocal adjustment of actions to adjust the requirements of the external environment [67]. It is self-imposed and, when used effectively, sets an example for others to follow in adapting their actions to a changed environment. Besides, a healthy power distribution in an organisation, normative control is also essential for smooth organisational processes [25]. It is because balancing power distribution creates preparedness for local action whereas normative control brings organisational alignment and stability to organisational members. This leads to long-term survival of the organisation which is important for achieving organisational resilience.

In contrast, an individual's self-control is an important personality and cognitive factor that is associated with overall betterment of physical, psychological, and social outcome leading to their resilience [68]. It is often considered as an umbrella-based construct that bridges measurements and concepts from different disciplines (e.g., impulsivity, conscientiousness, willpower, self-regulation, inattention, hyperactivity, and executive function). Often, the control dimension is explained in the context of individual resilience [29]. It includes decisional control, implying the capability of autonomously choosing a way to handle a particular situation; cognitive control, which refers to the ability to appraise,

interpret and incorporate any sort of stressful event into an ongoing life plan and lastly, behavioural control which may explicitly influence the objective characteristics of a threatening [69]. Also, there is a strong relationship between personal control and stress, as it is majorly a function of the control response for the individual.

Despite that, individual and organisational resilience orient together on control as an indicator, they are wide apart in many instances. It is observed that an organisation is ready or prepared for what happens, if it has the ability to remain in control [25]. If the control persists during both anticipated and unanticipated conditions, then the system is said to be resilient. However, the concept of control is misused many a times, as the exercise of power is withheld by a small group of privileged managers over other members of an organisation. Thus, control, in the true sense, should be free-will and not forced to maintain its actual essence. It must be based on an organisation's own observation, orientation, decision, and action [70]. Reference [71] further suggested that the loss of control of a situation often happens because of inexperience of staff, unavailability of equipment or supplies and lack of time. Besides this, unrealistic and mindless anticipation also erodes the organisation's ability to stay in control. Similar to organisations, individual control and forming attitudes are somewhat influenced by context and culture. However, one distinct feature between individual control from organisational control is that individual control largely depends on how the person perceives the meaning of control [69]. A positive outlook triggers a robust approach in the individual, by comparison of the same challenge in a negative context, where the individual feels little or no emotional support.

Though these two levels of control operate differently, they still share a close relationship. For example, organisational control provides a structure that helps individuals to have a sense of control over their work and functioning through clear description of roles and responsibilities. This ultimately enhances the individual's ability to exercise control over their work and in response to it, individuals show proactive behaviour and are more likely to embrace changes. Such kind of flexibility fosters innovation and allows the organisation to respond quickly and effectively to challenges, developing the overall resilience of the organisation.

It is essential to note that while organisational and individual control can positively impact each other for resilience, the limiting condition is that excessive control from either side can have negative consequences. It must strike a balance between organisation's support and structure, accompanied with proper alignment of individual control. Thus, control as an indicator of resilience must be carefully planned by organisations and individuals to avoid any kind of confusion, chaos and mishappening.

#### V. CONCLUSION

Organisational resilience is a unique capability which exists at the interplay of individual level resilience, team or group level resilience and organisational level resilience, with each one reinforcing the other. The study explored this point and

highlighted the common indicators to discuss the boundary conditions or the limit of overlapping between individual and organisational resilience. The findings suggest that the overlapping indicators are work environment and culture, leadership, social support including communication and collaboration, adaptability to internal and external changes and sense of control. It was also observed that in some cases, both organisations and individuals share common set of boundary conditions, like social support and inter-organisational bonding are productive only if the other is not trying to dominate or influence negatively. Similarly, control allows to handle and regulate stressful situations, but a forced control seems to diminish its real goal. For both individual and organisations, control is influenced by the internal and external culture. Moreover, it was found that flexible and innovative organisational set-up adapts to emerging challenges and developed new ways to work. They produce new technical processes, organisational systems, and support their workforces which ultimately contribute to improved output and well-being of the employees. Nevertheless, the presence of resilient leaders, who can impart unity in purpose and encourage others to be leaders is also a link between the two levels of resilience. However, indicators like adaptability show distinction between the two resilience as for organisation, it is based on all its members and resources, whereas individual adaptability is based on one single person and is a result of past experiences and psychological capital. A significant detail was also recognized that in some way or the other, all indicators are somehow linked to each other. This implies that the improvement in one may bring positive results to others as well. Thus, the common aspects of the indicators need to be utilised by organisations and policy makers to plan strategies related to individual and organisational resilience. However, the contrasting aspects must be further explored. The practical implications would be to manage workplace changes effectively and focus on adaptability and learning for retaining competitive edge. It is also essential to look for opportunities, practices, or interventions to integrate the dimensions, that certain can promote both individual and organizational resilience. By leveraging these synergies, organisations can maximize the impact of efforts to build resilience.

The study inevitably has some limitations. Firstly, the language of the research papers was confined to English. Hence, there is a scope of broadening the language area of papers to be reviewed. Also, the research is just limited to literature review, which could be extended, and results might be verified using triangulation analysis based on surveys and interviews. Further studies may include some more indicators of organisational and individual resilience to get better observations.

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