PROFESSIONALISM AND ETHICS: CHALLENGES IN POST-DISASTER RECONSTRUCTION

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There is an increased demand for construction professionals to undertake rebuilding after disasters to reconstruct resilient cities ensuring the well-being of people. However, the post-disaster context is usually chaotic, time-compressed, resource-deprived, politically influenced, and legally challenged. Therefore, despite the construction industry being criticised for lack of professionalism and for the common occurrence of unethical conduct in its ordinary context, being professional and ethical in the post-disaster reconstruction (PDR) context is a greater challenge. However, professionalism and ethics in the context of PDR have not been explored. Therefore, this study aims to identify challenges relating to professionalism and ethics in PDR through a systematic literature review. After screening 507 articles obtained from Scopus databases, 39 peer-reviewed journal articles and reports published between 2008 and 2023 were reviewed. The thematic analysis revealed six intra-industry challenges and five extra-industry challenges that affect professionalism and ethics in PDR. This paper contributes to the existing literature on Professionalism and Ethics, particularly in PDR and construction, and provides a critical foundation for future research suggesting that a multi-disciplinary perspective would be most appropriate.

Keywords: challenges; disaster; ethics; professionalism; resilience

INTRODUCTION

Disasters are increasing in frequency and severity (UNISDR 2015) causing major impacts on cities, other human habitats, lives and livelihoods (The Word Bank 2010). The global average annual loss in the built environment due to natural disasters is estimated at US$314 billion (UNISDR 2015). Therefore, there is an urgent need to restore these broken settlements while ensuring the well-being of people (Amaratunga and Haigh 2011). However, the post-disaster reconstruction (PDR) context is different from that of ordinary construction (Amaratunga and Haigh 2011). It demands quick, mega-scale reconstruction (Koria 2009), in a resource-deprived, time-compressed, legally challenged, politically influenced, media-framed (Koria 2009; Ozcevik *et al.,* 2009; Olshansky *et al.,* 2012) context in which many human

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considerations prevail. However, construction professionals trained for such extremes are rare.

The construction industry operating under ordinary conditions is often criticised for poor professionalism and ethics (Foxell 2019). According to Schön (1983), professionalism is a model of technical rationality in which the professional activity consists of instrumental problem-solving made rigorous by the application of scientific theory and techniques. Sociologists define a profession as "a vocation with a body of knowledge and skills put into service for the good of others" (van Mook *et al.,* 2009, 1). Whilst there are many explanations of, definitions for ethics, and debates on whether it can be defined or not, according to Davis and Frederick (1984), ethics refers to the rules or principles that define right and wrong conduct.

Regardless, the rising number of globally spread PDR projects are severely challenged and do not respond to their intended needs (Kennedy *et al.,* 2008). PDR challenges such as lack of technical knowledge and managerial skills, bribes, fraud and corruption (Koria 2009; Ophiyandri *et al.,* 2013; Sadiqi *et al.,* 2017) directly relates to poor professionalism and ethics. In addition, the dynamic nature of the PDR context further challenges the ethical decision-making (Bouraoui and Lisarralde 2013). Nevertheless, the growing body of literature on PDR has mostly focused on concepts such as 'build back better' (Su and Le Dé 2020), technical and administrative aspects (Amaratunga and Haigh 2011; Chang *et al.,* 2011; Fayazi *et al.,* 2017; Lin *et al.,* 2020), and lessons learned (Koria 2009). Therefore, challenges to professionalism and ethics in PDR context have not been explored. However, to ensure responsive resilient reconstruction, productivity of the industry, socio-economic needs, sustainability, and quality of life of people, there is an urgent need to address professionalism and ethics in PDR. Accordingly, this study aims to identify challenges to professionalism and ethics in post-disaster reconstruction.

METHOD

To investigate and synthesize (Snyder 2019) challenges to professionalism and ethics in post-disaster reconstruction (PDR) this study adopted the systematic literature review process (Moher *et al.,* 2010). Accordingly, the study identified all articles that fit the pre-specified inclusion criteria to achieve the aim. Using this explicit and systematic method to review articles, bias was minimised (Moher *et al.,* 2010). A four-phase review process was followed: (1) designing the review, (2) conducting the review, (3) analysis and (4) writing up the review (Snyder 2019).

During phase 1, a search strategy that includes search terms, databases and inclusion and exclusion criteria was developed. Keywords were defined using Boolean operators and they were: Professional* AND Disaster AND Construction OR Reconstruction; Professional* AND Disaster AND rebuild*; Ethic* AND Disaster AND Construction OR Reconstruction; Ethic* AND Disaster AND rebuild*. Scopus database was used (Chadegani *et al.,* 2013) whilst considering inclusion criteria. Journal articles and papers in conference proceedings from the construction literature published between 2008-2023 in the English language focusing on professionalism and ethics in PDR were considered.

During phase 2 the search was conducted based on preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines (Moher *et al.,* 2010) ensuring that the search is replicable (Tranfield *et al.,* 2003). The search yielded 507 publications. After going through titles and author names during the initial screening,

304 duplicates were removed. After reading abstracts and keywords, 102 irrelevant articles were also screened out. Finally, after full-text reading, irrelevant articles were screened out and 39 articles were considered for thematic analysis. During phase 3 a thematic analysis was carried out using the NVivo 12 software (Snyder 2019). An inductive coding structure was adopted. During stage 4 the review was written. First, it discusses intra-industry challenges and then it moves to discuss extra-industry challenges to professionalism and ethics in PDR.

FINDINGS AND DISCUSSION

Challenges to Professionalism and Ethics in pDR

The thematic analysis revealed that professionalism and ethics in PDR is confronted by two broad clusters of challenges. They are intra-industry challenges and extra-industry challenges, which can be further focused on for a critical study. They are summarised in Tables 1 and 2. The following sections discuss the critical review of challenges to professionalism and ethics in PDR from these two broad perspectives.

Intra-industry Challenges

Table 1: Intra-industry challenges to professionalism and ethics

Challenge	Description
Nature of PDR projects	The time-compressed nature of PDR projects (Olshansky *et al.,* 2012) makes meeting deadlines (Koria 2009), donor requirements (Chang *et al.,* 2011), and user needs unrealistic. Further, the sheer size of PDR projects (Koria 2009), their unclear scopes (Koria 2009), communication obstacles (Lin *et al.,* 2020), conflicting normative and regulative influences (Palagi and Javernick-Will 2019), needs of international organisations (Chang *et al.,* 2011) increase the complexity. The multi-participant nature (Ophiyandri *et al.,* 2013) increases the fragmentation (Fayazi *et al.,* 2017). Time limitations and restricted end-user involvement, make decision-making a challenge (Afkhamiaghda and Elwakil 2023). Further, management approaches used are inflexible (Vahanvati and Mulligan 2017).
Nature of the industry	Poor readiness of the construction industry (Kulatunga *et al.,* 2014) to manage large-scale PDR projects, and a diverse range of stakeholders some of whom are unfamiliar with construction (Ali *et al.,* 2020) that represent varying cultures (Suen *et al.,* 2007) is a challenge.
Organisation culture	Poor leadership that gives poor guidance to deal with unexpected situations (Bosher *et al.,* 2009) and poor authority structure within organisations are challenges to professionals (Platt and So 2017).
Competence and training	Lack of technical competence (Kim and Choi 2013) in resilience construction techniques (Ophiyandri *et al.,* 2013), damage assessment (Ophiyandri *et al.,* 2013), coordination (Koria 2009), urban regeneration (Ozcevik *et al.,* 2009), and community participation (Sadiqi *et al.,* 2017) affects professionalism. Similarly, lack of competence in non-technical areas such as understanding local culture (Manatunge and Abeysinghe 2017), and failure to recognise social and cultural sensitivities of resettling communities (Keraminiyage and Piyatadsananon 2013) is a challenge. Poor knowledge transfer within construction projects that do not involve localisation (Ingirige *et al.,* 2008) affects competence.
Bureaucracy	Overcomplicated procedures hinder community participation (Sadiqi *et al.,* 2017). Inflexible consent processes (Manatunge and Abeysinghe 2017) affect timely completion whilst inflexible payment procedures (Ophiyandri *et al.,* 2013) delay resourcing and implementation.
Conduct of professional bodies	Insufficient guidance given by professional bodies such as project management methodology for post-disaster reconstruction published by Project Management Institute (Vahanvati and Mulligan 2017).

Nature of PDR projects

PDR projects are complex, time-compressed, involve multi-participants and often need to meet international requirements (Koria 2009; Olshansky *et al.,* 2012). Further, decision-making in PDR is challenged (Bouraoui and Lisarralde 2013), and

inflexible project management approaches are used (Vahanvati and Mulligan 2017). In addition to the literature on PDR the wider construction literature discusses that, construction projects are one-off, isolated and transitionary (Tow and Loosemore 2009). Such characteristics lead to practices including modern slavery, corruption and unsustainability, posing intricate challenges to the ethical conduct of stakeholders (Locatelli *et al.,* 2017) in PDR.

Nature of the construction industry

The construction industry is fragmented, involves a diverse range of stakeholders and is poorly prepared to meet challenges associated with PDR (Kulatunga *et al.,* 2014; Ali *et al.,* 2020). As discussed in the wider construction literature, the industry is profit-driven, with little trust and battles the belief that corruption is endemic to the industry (Suen *et al.,* 2007; Tow and Loosemore 2009). Further, the poor industry culture coupled with the market- and profit-driven nature makes unethical actions common within the industry (Sims 1992), whilst the heterogeneity caused by the fragmentation of the industry challenges professionalism (Noordegraaf 2007).

Organisation culture

Organisations involved in PDR have a poor authority structure and are affected by poor leadership (Bosher *et al.,* 2009; Platt and So 2017). In addition, the construction literature argues that underpromoting ethics, having no whistleblowing culture, poor audit and rewarding systems (Oladinrin and Ho 2016) are common in construction organisations. An organisation culture with such anomies communicates unhealthy messages to employees, challenging professionalism and ethics (Treviño *et al.,* 1998).

Competence and training

Professionals and builders in PDR lack the necessary technical and non-technical competence (Ophiyandri *et al.,* 2013; Manatunge and Abeysinghe 2017). Further, the knowledge transfer within PDR projects is poor (Ingirige *et al.,* 2008). When discussing ethics in construction, Tow and Loosemore (2009) highlighted the absence of ethical training in the industry. Whilst competence is a key component of professionalism (Noordegraaf 2007), lack of competence challenges the adaptability of professionals to dynamic situations (Schön 1983) such as PDR.

Bureaucracy

Payment and consent procedures in the industry are over-complicated for the PDR context (Ophiyandri *et al.,* 2013; Manatunge and Abeysinghe 2017). Therefore, the industry involves large payments to circumvent complicated procedures (Kenny 2007). Such procedures pose challenges to the professional and ethical conduct of practitioners in PDR.

Conduct of Professional bodies

Project management guides provided by professional institutions for managing PDR are inadequate (Vahanvati and Mulligan 2017). In addition, the industry is known for poor ethics (Harris 2008). Drawing from theories of professionalism, Noordegraaf (2007) argues that poor institutional control hinders professionalism.

Extra-industry Challenges

PDR Context

The resource-deprived nature, disrupted infrastructure, hazardous nature and extent of political influence in the PDR context make it different from that of ordinary construction (Koria 2009; Chang *et al.,* 2011; Keraminiyage and Piyatadsananon

2013; Kim and Choi 2013; Uddin *et al.,* 2021). Such dynamic situations challenge professionalism (Schön 1983).

Table 2: Extra-industry challenges to professionalism and ethics

Challenge	Description
PDR Context	Since PDR projects need to be simultaneously executed after disasters, resources are in short supply in the PDR context (Kennedy *et al.,* 2008; Chang *et al.,* 2011; Sadiqi *et al.,* 2017). Shortage of building materials and qualified people such as engineers (Kim and Choi 2013) and skilled labour (Ophiyandri *et al.,* 2013; Manatunge and Abeysinghe 2017) is common in the PDR context. In addition, essential infrastructure needed for construction is disrupted (Keraminiyage and Piyatadsananon 2013) hindering logistics and transportation (Chang *et al.,* 2011; Ophiyandri *et al.,* 2013). The PDR context is generally hazardous and there is often a lack of health and safety measures (Uddin *et al.,* 2021). In addition, political influence in the PDR context is excessive (Koria 2009). As a result, PDR is under impractical political agendas (Koria 2009; Manatunge and Abeysinghe 2017; Sadiqi *et al.,* 2017).
Administrative structure and the government	Government support for PDR is poor due to the poor capacity of governments (Koria 2009; Chang *et al.,* 2011; Manatunge and Abeysinghe 2017; Sadiqi *et al.,* 2017). Due to poor data management of the administration, beneficiary identification and housing allocation are chaotic (Koria 2009; Ophiyandri *et al.,* 2013) and it hinders end-user participation in PDR. Poor data management further leads professionals to work in a politically motivated environment (Ali *et al.,* 2020). Due to poor policies, land identification for relocations is challenged (Keraminiyage and Piyatadsananon 2013; Manatunge and Abeysinghe 2017; Sadiqi *et al.,* 2017). Some policy decisions such as expropriation weaken the local decision-making process (Siembieda *et al.,* 2012). In addition, poorly transparent aid systems reduce the ability of professionals to be accountable (Sadiqi *et al.,* 2017; Shrestha *et al.,* 2019).
Education	Not interacting well with disaster stakeholders when developing built environment pedagogies, being disciplinary silos without incorporating a multi- and inter-disciplinary approach (Amaratunga *et al.,* 2017) is a challenge.
Legal structure	Immature legal systems such as having poor or no urban regeneration laws (Ozcevik *et al.,* 2009), make it impossible to introduce a participatory approach that enables sustainable redevelopment (Ozcevik *et al.,* 2009) in PDR.
Social structure	Due to poor social capital in the post-disaster context (Ozcevik *et al.,* 2009; Tan-Mullins *et al.,* 2021) the public gets only a few opportunities to collaborate and partner with disaster organisations. Further, poorly empowered people challenge community engagement and vulnerable groups get excluded (Chang *et al.,* 2011; Lam and Kuipers 2019). Further, community participation is hindered due to a culture of dependency, lack of livelihood opportunities, lack or loss of personal assets, and loss of community cohesion (Sadiqi *et al.,* 2017). The society has a poor understanding of ideas such as the Build Back Better concept where their understanding of what is 'better' is poor (Su and Le Dé 2020). Further, due to societal gender issues, the participation of women in projects is hindered (Sadiqi *et al.,* 2017).

Administrative structure and the government

Governments lack the capacity to provide support for PDR, manage data, have poor policies and lack transparency (Koria 2009; Siembieda *et al.,* 2012; Shrestha *et al.,* 2019; Ali *et al.,* 2020). In addition, construction literature discusses that fronting is common in construction (Agyekum *et al.,* 2021). Such characteristics of the government and the administration negatively affect ethical conduct (Sims 1992).

Education

Inadequate pedagogies, poor interactions with disaster stakeholders, intra-disciplinary nature of construction education (Amaratunga *et al.,* 2017) challenge professionals in PDR. Similarly, the wider construction literature argues that poor incorporation of ethics into education, implied unimportance of ethical practices, anti-intellectual culture, lack of diverse perception and limited research also affect professionalism and

ethics (Tow and Loosemore 2009; Ofori 2021; Zhang and Zhu 2021), since intellectuality should be part of education to make people ethical (Aristotle 1923).

Legal structure
Immature legal systems (Ozcevik *et al.,* 2009) challenge the professionalism and ethics of practitioners. Similarly, Liu *et al.,* (2022) highlighted lack of ethics-related laws and poor regulator pressure challenge the ethical conduct. Aristotle (1923) emphasized that the presence of good laws is necessary to educate and habituate ethical conduct.

Social structure
Poor social capital, poor empowerment, poor understanding of what is 'better', gender issues (Ozcevik *et al.,* 2009; Sadiqi *et al.,* 2017; Lam and Kuipers 2019; Su and Le Dé 2020) were challenges identified by the review. Further, it is highlighted that oppression and poor reputation pressure challenge the professional and ethical conduct in construction (Ameh and Odusami 2010). Similarly, Bull *et al.,* (2010) argued that ethical conduct gets further challenged by the absence of ethical capital.

CONCLUSION

Professionalism and ethics in PDR are affected by a broad array of challenges; hence the aim of this paper is to identify these challenges using a systematic review. Based on the reviewed literature two broad categories of challenges: intra-industry and extra-industry were identified. The nature of projects, nature of the industry, organisational culture, conduct of the professional institutions, competence and training are key intra-industry challenges to professionalism and ethics in PDR. In addition, the PDR context, administrative structure and the government, education system, legal structure, society and social structure are the key extra-industry challenges.

In addition to the challenges discussed in this paper, the wider domain of construction literature discusses challenges to professionalism and ethics in a broader manner (Suen *et al.,* 2007; Oladinrin and Ho 2016; Ofori 2021). Further, the literature in social science and psychology identifies Personal Challenges (Aristotle 1923; Kohlberg and Hersh 1977; Treviño *et al.,* 1998) as another category of challenge for professionalism and ethics. These challenges appear relevant to PDR as well.

The findings of this paper should be seen as a stepping stone toward bringing PDR research in line with broader theories of professionalism and ethics. This research suggests that future research could focus on five main areas. First, the interwoven nature of the broad categories of challenges should be explored empirically. The second and third research themes concern intra-industry challenges. Professionalism and ethics in PDR must be viewed incorporating organisation theory as organisation culture affects ethical conduct (Treviño *et al.,* 1998; Cullen *et al.,* 2003). Third, enhancing professionalism in PDR needs further exploration incorporating the rich domain of classic and hybrid professionalism (Noordegraaf 2007; Evetts 2013). The fourth point relates to extra-industry challenges. Scholarly attention on exploring external challenges must be explored utilising the concept of ethical capital (Bull *et al.,* 2010; Raile 2013). The fifth important research area concerns personal challenges. Due to the close relationship between personal challenges and moral virtues, it should be further explored incorporating moral theory and virtue ethics (Aristotle 1923; Koehn 1995). This paper contributes to existing literature on Professionalism and Ethics particularly in PDR and construction by identifying the

challenges. It also provides a critical foundation for future research in this subject area.

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