

Organisational learning from failure and the needs-based hierarchy of project-based organisations

Organisational
learning from
failure

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Abstract

Purpose – In his 1943 paper “A Theory of Human Motivation”, Maslow suggested the “Hierarchy of Needs” as a classification system that described the stimuli for human behaviour. Presently, project behaviour research, which inspired this work, encourages undertaking research on behavioural aspects within and across organisational and project settings. Therefore, the purpose of this paper is to analyse project-based organisations’ (PBOs) seemingly reluctance in engaging in organisational learning from past project failures by drawing upon both institutional theory (since it focuses on how firms interact) and Maslow’s model within a project behaviour piece of research.

Design/methodology/approach – Interviews were held with purposively selected construction professionals from the UK construction industry, and data were analysed using thematic analysis.

Findings – Besides the need to learn from failures, PBOs’ main competing needs revolve around their “competitiveness”; “profitability and productivity”; “repeat business” and “reputation and partnering”. Mirroring these needs against Maslow’s hierarchy of needs, “competitiveness” and “profitability” are analogous to foundational “physiological” and “safety” needs. The need for “repeat business” and “reputation” is approximated with Maslow’s “affiliation” and “self-esteem” needs, and organisational learning is associated with “self-actualisation”. From an institutional theory perspective, such response to failure is influenced by the need to show legitimacy and conformity imposed by institutional factors.

Practical implications – Instead of taking a simplified approach to learning from failure such as the use of technological tools, PBOs and the sector at large should consider more robust approaches, by appreciating the influence of institutional factors and the external environment on their efforts to learn from failure.

Originality/value – Unlike past studies that present organisational learning within PBOs as a straightforward process, this study instead highlights the need of understanding various competing needs within a PBO and the external pressure.

Keywords Failure, Needs, Organizational learning, Project-based organizations

Paper type Research paper

Introduction

Organisational learning from past experiences, such as project-related failures, is encouraged in many project-based sectors. As such learning can result in benefits such as innovation, resilience and mitigation of worse or similar failures from reoccurring (Madsen and Desai, 2010; Zaharee *et al.*, 2021). However, project-based organisations (PBOs) in the construction sector rarely seem to engage in learning from project-related failures. Considering Dekker’s (2013) observations that organisations have business goals that they need to meet, low

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engagement in learning from project-related failures amongst PBOs may be associated with the challenge of trying to meet more immediate competing business goals. Therefore, the main objective of this study is to contribute to the growing body of project behaviour research (Unterhitzberger, 2021) by identifying the competing needs of construction PBOs and understanding their influence on the process of learning from failures. This is based on the understanding that though opportunities present themselves in learning from past experiences or adopting new technological advancements and methodologies, PBOs tend to respond otherwise by focusing on meeting more immediate organisational needs which in most instances are profitability and competitiveness.

Theoretical background

Though it is acknowledged that learning from past experiences enhances organisations' performance, there are challenges that hinder the successful implementation of that process (Zaharee *et al.*, 2021). To better understand PBOs' rather slow response to learning from failure, the study adopts institutional theory which elaborates the influence of norms and practices on organisations' strategic responses or behaviour.

Institutional factors influencing PBOs strategic response

Fundamentally, Yin and Jamali (2021) contend that organisational strategic responses are in part influenced by the external environment via institutional factors. These include demand for social legitimacy, professionalism, competition, conformance and economic efficiency (DiMaggio and Powell, 1983; Oliver, 1991; Yin and Jamali, 2021). Consequently, organisations will either comply or avoid conforming to such external demands as observed in recent studies by Kerlin *et al.* (2021) and Yin and Jamali (2021). To illustrate such responses or behaviour amongst PBOs with respect to learning from failures, it is worth considering strategic responses identified earlier by Oliver (1991) as shown in Table 1. For purposes of scoping, this study is focused on "acquiescence" and "avoidance" types of responses.

Responses in Table 1 above can be attributed to two factors identified by Oliver (1991), namely the "context" or external pressure, and "internal interests/motives" of an organisation.

Context factors. Context factors highlight the fact that organisations are interconnected with Yin and Jamali (2021) recommending that it is either organisations "collaborate" or "collide". Consequently, for survival, organisations should be responsive to external demands and expectations such as social worthiness and stability (Santos and Pache, 2010). Specifically, the external environment/context is influenced by the three institutional pillars, these being: Regulatory Pillar – via regulatory bodies such as the Health and Safety

Strategies	Tactics	Examples
Acquiescence	Habitat, imitate, comply	Following demands; mimic institutional models, obey rules and norms
Compromise	Balance, pacify, bargain	Balance, accommodating multiple constituents' expectations; negotiate with other institutional stakeholders
Avoidance	Conceal, buffer escape	Disguising nonconformity; changing goals, activities or domains
Defy	Dismiss, challenge, attack	Ignore explicit norms and values; contest rules and requirements; assault the source of institutional pressure
Manipulation	Co-opt, influence control	Import influential constituents; shaping values and criteria; dominating institutional constituents and process

Table 1. Strategic responses by organisations to institutional processes

Executive and government bodies demanding conformance to specifications and regulations; Normative Pillar – through professional bodies demanding good practice and Cultural-cognitive Pillar – influence from peer PBOs and end users. In view of that, [Yin and Jamali \(2021\)](#) contend that organisations are faced with the challenge of institutional complexity leading to struggles such as profit maximisation versus social benefits.

Accordingly, though PBOs are expected to learn from failure, the external institutions expect them to deliver projects without any “failures” such as project delays. Hence, if a PBO experiences failure(s) on a project, it risks losing its competitiveness or “social worthiness”. Therefore, PBOs may hide their failures in order for them to show “social worthiness” or “stability” and remain competitive. Consequently, the response to the sector’s call for sharing and learning from past failures is “avoidance”.

Internal demands. Institutionally, it is argued that organisations are interest-driven and endeavour to attain stability and legitimacy ([DiMaggio and Powell, 1983](#); [Oliver, 1991](#); [Santos and Pache, 2010](#); [Yin and Jamali, 2021](#)). More recently, [Yin and Jamali \(2021\)](#) contend that such varying interests or institutional logics include profit maximisation, value creation, social benefits, political control and public service. Yet, whilst PBOs may be pursuing internal organisational interests, the power to attain stability and legitimacy is associated with the external environment ([Oliver, 1991](#)). Consequently, though organisations may have motives that are socially motivated, in a not so explicit manner organisations tend to focus more on self-interest behaviour such as productivity and profitability ([Oliver, 1991](#)). Therefore, PBOs would rather engage less in learning or sharing failures since it is regarded as a non-revenue generating activity and a threat to their competitiveness.

PBOs and Maslow’s hierarchy of needs

Unlike past studies that have identified specific strategic responses shown in [Table 1](#), this study further analyses internal PBOs’ demands that lead to a lack of engagement in learning from past failure. This is by considering [Maslow’s \(1943\)](#) hierarchy of needs which highlights motivation as the underlying influence of human behaviour. In addition, past studies present learning from failure as a straightforward process by relying on past project reviews. Yet this study highlights the need to pay particular attention to vying institutional needs such as profitability, social legitimacy and competition. Worth stating is that there are several motivation theories. However, Maslow’s theory was chosen based on its emphasis on an organisation/individual focusing on a present need to structure and organise their future activities. This aligns with this study’s argument that faced with the desire to meet internal needs such as competitiveness and profitability, PBOs rarely engage in learning from failures. Additionally, [Bozyigit \(2021\)](#) notes that Maslow’s theory has similarities (and also serves as basis for understanding/developing other theories) with other motivation theories such as Herzberg’s dual-factor theory and “existence, relatedness and growth” theory by [Alderfer \(1989\)](#). Maslow’s theory structured approach to needs ([Bozyigit, 2021](#)) also serves as a guide in classifying contractors’ vying needs.

Furthermore, though it is argued that [Maslow’s \(1943\)](#) hierarchy of needs cannot be considered for “organisational” analysis, the study relies on two aspects. Firstly, the structure and features of PBOs and secondly, understanding whether organisational learning occurs via “individuals” or the “organisation”. Therefore, of particular interest to this study is [Gemünden et al.’s \(2018\)](#) and [Miterev et al.’s \(2017\)](#) inclusion of the “human resource” and “people”, respectively, in the structure of PBOs. Thus, unlike the general perception of PBOs as organisations which deliver projects, the study agrees with [Gemünden et al.’s \(2018\)](#) view of PBOs as a “premise” “where learning occurs”. This also aligns with the metaphoric view of organisations as a “brain” and not necessarily a “machine” since learning takes place within them ([Yeo, 2005](#)).

In addition, this study contends that organisational learning can only be achieved through the collective learning of individuals by means of social interaction with those who possess the needed knowledge (Friedman *et al.*, 2005; Yeo, 2005). This aligns with scholars who appreciate the reciprocal interaction between the individuals and the environment/organisation in the learning process (Yeo, 2005). This is because, it is almost impossible to imagine an organisation that exists without individual members and, for individuals to learn, the organisation should facilitate a conducive environment.

Thus, an organisation's behaviour towards learning is depicted via the collective response of its people or individual professionals working within construction PBOs. Therefore, this study applied Maslow's hierarchy of needs theory at the organisational level instead of the usual individual level based on the following two reasons. Firstly based on anthropomorphism, which associates humanlike behaviour to an organisation, in this case learning, and secondly the understanding that impacts on individuals reflects on an organisation (Sharma and Lenka, 2019).

Organisational learning from failure and Maslow's hierarchy of needs. Though several definitions of organisational learning exist, this study subscribes to the view that organisational learning involves a process of learning from disturbances, errors or problems, evaluating past behaviours and reinventing new ones (Sharma and Lenka, 2019). Furthermore, this study focuses on learning from failure(s) instead of success, as these are typically solution-oriented and have more lasting influence, when compared with learning from success (Madsen and Desai, 2010). Yet, even with its supposed benefits such as innovation and competitiveness, recent studies show that organisations rarely engage in organisational learning from failure (Zaharee *et al.*, 2021).

To better understand some of the factors that may influence the low engagement in learning from failure-related incidents, Maslow's (1943) hierarchy of needs was adopted to act as an illustrative metaphor for the behaviour of organisations towards learning from failure. Specifically, Maslow's hierarchy of needs is used to make explicit internal organisational motives identified by Oliver (1991) as one of the factors influencing strategic responses. Accordingly, it is argued that PBOs, though encouraged to learn from past project-related failures, there are seemingly internal needs that they focus on instead. In relation to organisational learning from failure, PBOs' internal needs are regarded as analogous to Maslow's (1943) needs and are elaborated as follows:

- (1) **Physiological needs** – These are basic needs for existence. For people, they include food, shelter and water. If these are not met, other needs are pushed in the background with all immediate efforts and future orientation being centred on meeting these needs. For PBOs, it is theorised that “physiological needs” may be associated with the “need” to be competitive, “win and commence new projects” as the basis of present and future earnings and existence. Hence, the idea of learning may be rarely considered on par with these immediate needs. Failures may be hidden or not even realised in order to be “competitive” or acquire social worthiness and legitimacy (Kuipers and Wolbers, 2021; Zaharee *et al.*, 2021).
- (2) **Safety needs** – Maslow's (1943) examples include security, health, stability and safety. Here, one could associate PBOs' “safety needs” with “profitability” and “productivity”. Hence, learning is rarely considered because PBOs focus more on “safety-seeking” and “profit-making” activities such as risk management and planning. Anything out of pattern, such as failure is unwelcome. Therefore, learning from failure is rarely considered, as it is perceived as an “unproductive” and “unprofitable” activity (RICS, 2016). Consequently, in order to remain competitive, PBOs present their firms or projects as being “profitable” even when their

“profitability” is “threatened”. Such may only be noticed when a firm finally goes bust like recent prominent examples presented in the [NAO \(2020\)](#) report.

- (3) **Affiliation needs** – These are related to belongingness and friendship. In our study, this is associated with the need for “repeat business”. Primarily, having been competitive and profitable, every PBO would value the opportunity of repeat business. However, experiencing or revealing failure during the project delivery process may be regarded as a threat to achieving the “affiliation need” of “repeat business”. This also creates friction between sharing failures and social worthiness of an organisation which leads to taking defensive measures (mostly denying or externalising failure) referred to as “impression management” by [Kibler *et al.* \(2021\)](#). This is in a bid to sustain the “repeat business” and in the long quest, maintain social worthiness and conformance.
- (4) **Esteem needs** – Examples include one’s self-esteem and respect, respect from others, reputation and recognition. The study associates “self-esteem” needs with “reputation” and “partnering”. Trends of “reputation” and “recognition” may also be observed from PBOs’ desire to be considered for sectoral awards. Faced with such a need, some PBOs may engage in “self-evaluation”, which, essentially is learning. However, failures may be hidden or externalised to protect their “reputation”. This is also in a bid to present a PBO as being “capable” and sustain its social worthiness. Such behaviour can be likened to “self-focused impression management” through self-enhancement and promotion ([Kibler *et al.*, 2021](#)).
- (5) **Self-actualisation needs** – Examples include self-fulfilment and achieving one’s potential. Since these vary depending on an individual as observed by scholars ([Alderfer, 1989](#); [Kaur, 2013](#)), similarly, one PBO’s “self-actualisation” varies from that of others. For scoping purposes, the study associates “self-actualisation” with organisational learning from past failures. It is argued that having established their “importance” or “reputation”, PBOs may be willing to share their failures and show how they succeeded in challenging times. However, PBOs may equally hide their failures or externalise them since it may threaten their “self-actualisation” through defensive impression management practices ([Kibler *et al.*, 2021](#)).

However, Maslow’s theory should be used with caution since the theory has a number of limitations and does not apply to all situations. These include the hierarchical approach to motivation, the assumption that needs can be “fully satisfied” and a lack of empirical evidence for most of its conclusions ([Alderfer, 1989](#); [Kaur, 2013](#)). [Kaur \(2013\)](#) adds that the theory assumes as though actors and the environment are the same which is not the case in a project setting since PBOs and projects are unique.

Research methods

An exploratory approach was adopted involving 18 semi-structured interviews with a purposively selected range of construction professionals including designers, planners, directors and quantity surveyors (shown in [Table 2](#)). In order to cover participants in different and distant locations, the study adopted both face-to-face and virtual interviews. For consistency, participants were asked the same standard questions with responses being audio-recorded and reflective notes being taken throughout.

Realising the sensitive nature of failure with participants not being keen to openly engage in sharing failure-related information, the study also adopted a snowball sampling approach. This was by gaining trust from initial participants/contacts who further recommended other possible participants who were then vetted for suitability. After 18 interviews were

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Participants	Experience	Interview type	Job function	Company size
Participant 1	10–19 years	Face-to-face	Director	1–49 employees
Participant 2	10–19 years	Virtual	Director	250+ employees
Participant 3	30+ years	Face-to-face	Civil Engineer	250+ employees
Participant 4	10–19 years	Face-to-face	Electrical Engineer	50–249 employees
Participant 5	30+ years	Face-to-face	Project Planner	250+ employees
Participant 6	20–29 years	Face-to-face	Project Manager	250+ employees
Participant 7	30+ years	Face-to-face	Environmental Engineer	1–49 employees
Participant 8	30+ years	Virtual	Director	250+ employees
Participant 9	10–19 years	Face-to-face	Director	250+ employees
Participant 10	20–29 years	Face-to-face	Director	250+ employees
Participant 11	20–29 years	Face-to-face	Project Manager	250+ employees
Participant 12	30+ years	Virtual	Regional Manager	250+ employees
Participant 13	10–19 years	Virtual	Social Value Manager	250+ employees
Participant 14	20–29 years	Virtual	Civil Engineer	250+ employees
Participant 15	10–19 years	Virtual	Civil Engineer	1–49 employees
Participant 16	20–29 years	Virtual	Regional Manager	250+ employees
Participant 17	10–19 years	Virtual	Commercial Manager	250+ employees
Participant 18	20–29 years	Virtual	Project Manager	250+ employees

Table 2.
Summary of research participants' information

conducted, data saturation was seemingly achieved as limited new information/insights were generated from the latter interviews (Bryman, 2012).

Data were then analysed using thematic analysis (Bryman, 2012). Maslow's (1943) hierarchy of needs was identified as the main themes of needs within PBOs. Considering Bryman (2012), the data analysis process involved the following activities. The first stage involved transcription of interviews using NVivo 12. The second stage involved thematic data analysis involving the following steps: rereading the transcript to extract themes; data reduction (summarising and grouping the themes); relating the themes with literature; and data interpretation and discussion. From a philosophical point of view, an interpretivism epistemological stance was adopted since it aligns with the subjective nature of failure and the following two reasons as observed by Bryman (2012). Firstly, interpretivism does not take a realist approach which argues that there is a "reality" out there to be captured. Secondly, from an interpretivist's perspective, reality is dependent on the members being interviewed and their social setting. Subsequently, PBOs' reality of organisational learning from failure is influenced by the struggle between "internal needs" and the "external pressure".

Findings and discussions

The initial findings are based on responses to the following questions employed in the semi-structured interviews: (1) What is project failure? (2) How do you measure project failure? and (3) What are the barriers to organisational learning from failure?

Definition and measurement of failure

Though participants had variously identified low levels of client satisfaction, by not meeting project objectives (which highlights the external/context demands), when defining and measuring project failure the emphasis for PBOs was placed on "profitability" and "productivity". Participant 17 indicated that a failed project is "*any project that makes a loss. And any project that does not meet the client's brief*". Similarly, Participant 11 emphasised that "*the success of a project, is 'have you actually made some money' . . . you could be success for your client, [but if] you have not made any money, so you would [only] be a success in your*

client's eye, but you would not be very successful, in our MD's [managing director's] mind". This illustrates the struggle between context needs and the internal organisation needs as observed by Santos and Pache (2010).

Accordingly, to identify other needs within a PBO, the following "Maslowesque" themes of PBOs' "needs" around organisational learning from instances of project failure have been identified. However, it is worth noting that, and as a limitation of Maslow's theory, the listed themes are non-linear since there is no clear distinction when transitioning from "unsatisfied" to "satisfied" (Alderfer, 1989; Kaur, 2013).

Theme 1 – physiological needs – competitiveness and starting a new project(s)

PBOs' physiological needs have been associated with "competitiveness" and "starting new projects" which may distract them from capturing and sharing lessons from project-related failures. For instance, Participant 1 indicated that as a barrier to learning "*it's usually time pressures, that is the biggest thing . . . as soon as you finish one project you are straight to the next one*". The focus on competitiveness was also cited by Participant 2 and the RICS (2016) in that openly discussing failures risks damaging their competitiveness. Similarly, Participant 11 reasons that (sic) "*. . . we do not want to share any failures as such with any of our competitors either to be fair*".

From an institutional perspective, the process of learning from failure is affected by PBOs' need to respond to social worthiness, legitimacy and conformance (Oliver, 1991). In such instances, failures are hidden and lessons are rarely shared with a lack of reflection on past projects for purposes of learning due to the "need" to commence new projects or demonstrate "social worthiness". This also aligns with other studies which also observe similar defensive responses to failure in order to present a better image of themselves or sustain their legitimacy (De Keyser *et al.*, 2021; Kibler *et al.*, 2021; Zaharee *et al.*, 2021).

Theme 2 – the safety needs – focus on profitability and productivity

Amongst PBOs, "safety needs" are associated with "profitability" and "productivity" or "finishing the task at hand". Participant 5 echoed that "*when you watch construction in practice, it's always the pressure of what's happening now . . . the constant pressure to be working, to be seen to be moving*". This may be associated with PBOs focusing on "productivity" in order to claim against the contract sum. In addition, PBOs also respond to the external pressure from the regulatory pillar in the form of time constraint as per the contract (RICS, 2016). The safety need in the form of "profitability" can also be observed from the response of Participant 5 to causes of failure that "*it's the low profits; not allowing investments in the systems to improve . . .*". Learning in some PBOs with such orientation is therefore seen as an opportunity cost, because of loss of time. If learning is to be done, certain PBOs may only consider free training as observed by Participant 7 that "*if somebody wanted to go and do something [learning], they always get to go if there is a bursary or it's free*". Similarly, Participant 18 indicated that "*learning from failure does not pay the bills*" as one of the reasons for the less engagement in organisational learning from failures which is regarded as "unproductive" or "unprofitable". This also aligns with the RICS' (2016) findings that PBOs rarely engage in lessons learnt event since they do not generate revenue.

Besides that, Participant 7 indicated that they may engage in continuous professional development and professional body related training which also shows a response to the external pressure from the normative pillar. Thus, instead of focusing on learning from failures, more time and efforts are spent on risk management and planning so that there is a continuous flow of work to meet the safety needs of "profitability" and "productivity" in a bid to achieve "stability".

Theme 3 – affiliation needs – repeat business

Affiliation needs are associated with repeat business since PBOs also regard project failure as a lack of “repeat business”. Elaborately, Participant 14 in response to how they measure failure indicated that “*Repeat business of course, getting certain works from the same client . . . definitely is a success factor*”. Similarly, Participant 16 observed that “*the ultimate success for us as a business is getting repeat business with a client . . .*”. However, with the focus on “repeat business”, PBOs may not freely discuss failure in order to remain in good standing with the client for “repeat business” opportunities by ending a project on a good note. This aligns with the RICS (2016, p. 10) findings that in construction “*Meeting the client is more about impressing them than dwelling on problems and can be a great exercise in self-promotion*”. Consequently, failures may be hidden or externalised which hinders possibilities of learning from such failures. Such response to failure may also be associated with what Schwarz *et al.* (2021) term as “voluntaristic” perspective which regards failures as terminal and should be avoided.

Theme 4 – self-esteem needs – reputation and partnering need

Self-esteem needs are associated with PBOs’ “reputation” and “partnering”. Therefore, PBOs may engage in self-reflection and where possible, learn from past failures in order to improve their reputation and partnering opportunities. Project failure or success is also measured against being awarded or recognised through industry awards. For instance, Participant 6 echoed that on a “*. . . successful project . . . obviously you get testaments of the client, we also put projects forward for awards, successful ones*”.

Though learning by observing other competitors’ failures may be practised (through case studies as indicated by Participant 14), most PBOs may focus on “best practice” and “legislation” related learning, which requires conformance and professionalisation of practices (DiMaggio and Powell, 1983), instead of lessons from failures. For instance, Participant 8 indicated that departmental learning follows legislation or best practice needs while Participant 6 indicated quality and environment ISO certification. On the contrary, this may hinder the process of learning from failure. This is because PBOs may not share their own failures in fear of harming their reputation since that may show a lack of “good practice” within the firm. This aligns with “impression management” tendencies (excuses and externalisation of failure) observed by Kibler *et al.* (2021) in order to maintain their reputation.

Theme 5 – self-actualisation needs – the learning and sharing of failures needs

The typical theoretical argument is that a PBO, having met its other competing needs, may now feel that it can openly share its failures and lessons as competitiveness is not threatened. Such a state can be likened to a “Show” or “Demonstrative Impression Management” response to failure where there is full disclosure of failure-related information (Kibler *et al.*, 2021). The interviews provided some evidence of this happening, albeit infrequently. Participant 17 indicated that their company is receptive to being told by subcontractors when they have failed, and equally in turn, have encouraged them to be open about their failures. To support such learning, a PBO may have also built internal systems for learning from failure which enables the identification and sharing of failure lessons (Participant 8). However, the danger at this stage is that a PBO may be overconfident, and may not consider learning from other PBO’s failures by believing in their own systems (Participant 11). In such cases, it may even be difficult to anticipate failures, at least accept them when they occur. Hence, the very response to good practice, in institutionalisation, decouples the organisation from reviewing and learning from other players making it vulnerable to failure (Oliver, 1991). This may lead an organisation succumbing to what is referred to as the “success paradox” (De Keyser *et al.*, 2021). This is a situation where “leading or successful organisations” with good practice (in

“project management” and “risk management”) may be blinded by their own success and may not consider learning from other firms’ failures.

However, considering Maslow’s (1943) assumption that 100% self-satisfaction is not possible to attain or measure and Alderfer’s (1989) argument that when the higher level needs are met, one will spend twice as much energy on meeting the lower needs, it can be argued that “profitability” and “productivity” remain a perennial focus among PBOs regardless of their present needs. Hence, more resources and time on a project may be dedicated to being “productive” instead of learning.

Discussion

In a bid to improve project performance, organisations are being encouraged to learn from past failures (RICS, 2016; Zaharee *et al.*, 2021). However, the collective belief among PBOs is that sharing failure lessons affects their competitiveness negatively. Thus, the study suggests that in order to encourage PBOs to learn from their past failures and share them sector-wide, it is worth highlighting how engaging in learning from failures will improve performance instead of it being a threat to their competitiveness or social worthiness. For instance, Participants 2 and 14 reason that lessons learnt from past failures improve their bidding or competitiveness by demonstrating how they handled past projects. Similarly, the RICS (2016) observes that lessons learnt from past projects improve the delivery and performance of future projects while Zaharee *et al.* (2021) reasons that learning from failure improves innovation.

On the contrary, such benefits of lessons from failure are never realised since PBOs succumb to institutional pressures as observed by Oliver (1991, p. 149) that “... *institutional theory illustrates how the exercise of strategic choice may be pre-empted when organizations are unconscious of, blind to, or otherwise take for granted the institutional processes to which they adhere*”. This has seen PBOs focusing more on good practice or methodologies from professional bodies without appreciating the value of learning from failures and at times experiencing similar failures.

Additionally, this study agrees with Friedman *et al.* (2005), who argue against utopian approaches to learning which simplify learning by encouraging the use of technology. Evidently, the needs that PBOs try to meet internally versus the external institutional pressure demonstrate only one aspect of the dynamic and complex nature of learning from project failures (Oliver, 1991; Santos and Pache, 2010). Therefore, for effective learning from failure, socio-economic, cultural and political factors should be considered. See the findings summarised in Supplementary 1 Table which highlights a focus on profitability, competitiveness and productivity. This aligns with Dekker’s (2013) argument that focusing on profit is one of the key factors that lead to a drift in failure. Dekker (2013, p. 245) adds that failure occurs “*While pursuing success in a dynamic, complex environment with limited resources and multiple goal conflicts, a succession of small, everyday decisions eventually produced breakdowns on a massive scale*”.

Therefore, in order to encourage learning from failures, this study argues that PBOs’ profitability should be among the key performance indicators of a project. This is because PBOs rarely engage in learning due to focusing on their supposedly “safety” needs of “productivity” and “profitability” which also leads to failure. Therefore, in cases where PBOs’ “safety needs” and other needs are met, they may fully focus on meeting the client’s needs and may feel “safe” to learn from their failures and share their lessons openly. In addition, the study agrees with Participant 5 reasoning that clients need to stop “*pressurising people from the top, and just trying to get them to cut costs, [to instead thinking] I want them to do it by being more efficient and more effective because I can get a better product and I will get more for less*”.

In summary, by considering [Maslow's \(1943\)](#) hierarchy of needs, PBOs' vying needs in relation to learning from failure are grouped in three categories: "Social – reputation, networking, partnering, repeat business"; "Economic – profitability and productivity" and "Company Goals – learning from failure and competitiveness". See [Supplementary 2 Table](#) for details. From an institutional point of view, this illustrates how PBOs struggle to balance learning from past failures with the two aspects of social worthiness and stability or profitability. For instance, in trying to achieve social worthiness through "reputation" and "partnering", failures are hidden or not shared. Equally, in pursuit of stability in the form of productivity and profitability, PBOs engage more in continuous work or pursue future works as opposed to learning from past projects and failures.

Conclusions and recommendations

The study establishes that besides learning from past failures, PBOs are faced with the following vying needs which should be addressed for effective learning from failure: "competitiveness", "profitability and productivity", "repeat business", "reputation and partnering" and "self-actualisation" in learning from failure (the ability to learn and share the failure lessons). This is because PBOs are required to respond to the external pressures which mostly call for legitimacy, compliance and stability in their operations which are also driven by project constraints. Since there are several other demands that PBOs aspire to achieve such as sustainability, innovation and proficiency in project and risk management, the identified needs are not exhaustive.

The findings are limited based on the small number of participants and realising the limitation of Maslow's approach of uniformity of needs and situations. Nevertheless, besides highlighting the institutional influence on learning from failure, the findings also assist in understanding the challenges and context that may lead to PBOs' slow adoption or response to external demands such as adopting new regulations and practices. This is because PBOs are more focused on meeting their internal needs such as profitability, productivity and competitiveness. Therefore, the implication for actors (including policymakers) within the construction industry is that for successful adoption and implementation of new regulations or methodologies, there has to be a balance between external demands and internal needs of PBOs. Consequently, instead of simply viewing project success via meeting the client's needs, the findings demonstrate that PBOs' profitability (and other needs) should be part of the success criteria. Therefore, instead of considering learning from project-related failure as a competing need, it must be regarded as an opportunity for satisfying these very needs. With regard to future studies, the findings reveal that the influence of institutions and norms on learning within the construction sector is rarely considered. Instead, organisations are more focused on internal technological and strategic mechanisms ([Morris and Gerald, 2011](#)). [Unterhitzberger \(2021\)](#) also notes that studies at this level (organisational) mostly focus on individuals and teams. Hence, future studies should take a wider context (sectoral level) of learning from failure by discussing the influence of institutions on the learning process.

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Appendix

The supplementary files are available online for this article.

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