

**Normalizing Deviance in Construction Project Organizations:
A Case Study on the Collapse of Carillion**

Sara Hajikazemi^{a*}, Kirsi Aaltonen^b, Wenche Aarseth^c, Tuomas Ahola^d,
Bjorn Andersen^e

^aLondon South Bank Business School, London, United Kingdom; ^bUniversity of Oulu, Oulu, Finland, ^c Nord University Business School, Bodø/ Stjørdal, Norway, ^d Tampere University, Tampere, Finland, ^e Norwegian University of Science and Technology, Trondheim, Norway

*Sara Hajikazemi

Email: sara.hajikazemi@lsbu.ac.uk

Tel: +44 7568793389

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In 2018, the Construction giant Carillion went into compulsory liquidation costing the UK taxpayers an estimated £148m. According to our analysis performed on the case, the demise of Carillion was the result of accumulation of failures and normalization of deviations from good practice. The purpose of this article is to better understand how deviance can become the norm such that actors in the context of the construction organizations such as Carillion, come to adopt deviant practices rather than respecting their accepted industry codes and ethos. Inspired by the works of Vaughan (1996), Pinto (2014) and Smyth (2018), this article is based on an in-depth analysis of publicly available data on the case of Carillion. Our aim is to better understand the process of normalization of deviance and its potential effect on organizations. Our analysis of the case revealed three specific types of normalized deviance: late payments to suppliers, aggressive accounting and payment of high dividends to shareholders despite the troubled financial status of the firm. The results of our work contribute to theory by showing that normalization of deviance is a gradual process which can be influenced by actors both within the focal organization as well as actors in its environment. The managerial implications highlight the need for all actors in the construction sector to become more aware of the normalizing deviance process and its potential negative effects, which can be mitigated by stronger adherence to controls in the external environment in which the organization operates.

Keywords: construction organizations, normalizing deviance, external actors

Introduction

On 15th January 2018, the construction giant Carillion went into liquidation leaving a debt of £7.1 billion and an immediate impact on over 30,000 subcontractors and suppliers, employees, pensioners, shareholders, joint venture partners and customers in the UK, Canada and other countries. In the following year, hundreds of news articles and government reports were written on the reasons behind the collapse and blaming the

company's business model, culture and governance structure. The main question asked was how did Carillion survive for so long?

Various analyses have been done on the reason behind this collapse which has been officially labelled as “the largest ever trading liquidation in the UK” (Companies House, 2018). According to Smyth (2018), the collapse of Carillion has been seen as a result of accepting contracts that have made huge losses, ignorance of profit warnings, absence of cash reserves and the presence of mountainous debts, and the low margins it had sought to secure its work (Smyth, 2018). A report on the collapse of Carillion by two parliamentary select committees criticized the actions of directors, auditors and the regulatory bodies as the main reason behind the collapse (House of Commons, 2018). What seems to be evident is that the control systems did not prevent the collapse of Carillion, however in hindsight the main reason behind this goes back to a decade before the actual fall of the organization (Smyth, 2018).

The construction sector, despite its huge impact on national economy, has faced strong critique, from 1999 onwards, mainly addressed to its unsatisfactory financial performance and working culture (Egan, 1998; Aarseth et al., 2012). This is due to several factor including lack of effective engagement with stakeholders, lack of effective integration between clients, the supplier team and the supply chain (Office of Government Commerce, 2007; Kivrak and Arslan, 2008). In the UK, the dominant main contractor business model has focused on survival as the priority and seeking growth and profitability as a secondary goal, leading to companies' tendency to be reactive to market trends rather than driving change (Smyth, 2018). In 2017/2018 financial year, 2,764 insolvencies occurred among building firms in the UK (McDaid, 2018). Poor management practices, unqualified subcontractors, and lack of communication are among the factors that can negatively affect the business in construction and even result in failure

(Kivrak and Arslan, 2008). Holt (2013), refers to elements leading to failure of construction businesses as failure agents. The generic failure agents identified by Holt are managerial, financial, company characteristics, and macroeconomic. The first three are suggested to mutually interact within a “universe” defined by the latter. Many sub-causal agents are attributed to each generic agent. Furthermore, factors like market adaptation issues, organizational and financial capital factors and business and market adaptation issues have been stated as the direct driving force of failures in the construction industry (Nair, 2015). In this article we discuss failure as ‘a fall in revenues and/or rise in expenses are of such magnitude that the firm becomes insolvent and is unable to attract new debt or equity funding; consequently, it cannot continue to operate under the current ownership and management’ (Shepherd, 2003; Shepherd et al., 2000). In this article we will look at this case from the theoretical angle of normalization of deviance. We would like to explore the process which led Carillion to collapse and whether there is evidence of counterproductive practices within the organization and in the external context that brought the organization to the point where failure was inevitable.

The term “normalization of deviance” was first introduced by American sociologist, Diane Vaughan, in 1996, in her book “The Challenger Launch Decision”. This phenomenon is described as occurring when individuals within an organization become gradually insensitive to deviant practice so that it no longer feels wrong. In short, what may look very risky or irresponsible in hindsight, comes to be viewed as acceptable by decision makers in a gradual process that evolves over an extended period. Vaughan stated that the main cause of the Challenger disaster was related to the reciprocated choice of NASA officials to launch the space shuttle despite being aware of a dangerous design flaw with the O-rings. Vaughan also found that people grow more accustomed to the deviant behaviour the more it occurs. In other words, this phenomenon is the effect of

repeated success or absence of failure, gradual acclimatization and its effect on decision makers' beliefs about probabilities of future success.

Pinto (2014) states that normalization of deviance is typically the result of a series of deliberate choices that have become institutionalized over time. The nature of normalized deviance is one of gradualism and the accumulation of (and organizational acclimatization to) a series of decisions that individually, may not signal disasters but taken collectively, and applied continuously, will eventually, lead to serious repercussions (Starbuck and Farjoun, 2005). In fact, fine-tuning reduces probabilities of success and it continues until a serious failure occurs (Starbuck and Milliken, 1988).

Given that normalization of deviance is a process which emerges over time, in this article we will be studying this phenomenon as a process. We will explore how this phenomenon can emerge, develop and grow over time, as distinct from variance questions dealing with covariation among dependent and independent variables (Langley et al., 2013). Therefore, when referring to this phenomenon, we will use the concept of "Normalizing Deviance", which is process-based instead of "Normalization of Deviance" which is of a "variance-based" nature.

This phenomenon requires three specifications: 1) errors and deviations are human based, 2) the deviation occurs repeatedly, over time and 3) the deviation does not cause an immediate undesired effect (CCPS, 2018). Evidence of normalized deviance has been found in industries such as healthcare, and safety critical industries due to the fact that within these industries, the consequences can be catastrophic (Banja, 2010; Bogard et al., 2015). In the healthcare sector, according to Banja (2010), many serious medical errors result from violations of recognized standards of practice and even extreme violations of standards of practice might become normalized over time.

Healthcare professionals are hardly the only professional group to engage in, or fail to attend to variations or deviations from standards or protocols. The aviation industry is a clear example where normalized deviance can cause disastrous consequences. According to Albright (2017), it is seen repeatedly in the aviation industry that actors can become so experienced in their profession that “complacency displaces competency”. Major disasters such as Three Mile Island, Bhopal, and the Challenger and Columbia space missions all witnessed system flaws and protocol violations that ultimately resulted in disastrous results (Reason, 1999).

A recent example of normalizing deviance is the Volkswagen Scandal in 2015. Research following the scandal shows that Volkswagen engineers might have rationalized illegal behaviour which eventually led to

systematically cheating on emissions. According to Kedrosky (2015), “Normalization of deviance could have led Volkswagen engineers to systemically cheat on emissions in the same way engineers rationalized colder and colder launches for the space shuttle until it finally disintegrated in 1986 because of failed, cold O-rings.”

The construction industry provides further examples of normalizing deviance. In 2011, Charbonneau Commission, the commission of inquiry on the awarding and management of public contracts in the construction industry in Quebec, Canada announced that the corruption and collusion were “far more widespread than originally believed” in the construction sector (Saint-Martin, 2015). This case was later referred to as a clear case of normalizing deviance by Courtois and Gendron (2017). According to Courtois and Gendron (2017), the situation had worsened to the point where collusion had become the “usual” way of managing public contracts in the construction sector. Another example is the case known as Dutch Fraud. According to Van Den Huevel (2005), in December 2002, it was revealed that the Dutch construction sector had

participated in illegal practices, ranging from fraud, unjustified subsidies and license issuance to real bribery and money or favors to individual politicians or higher-ranking public servants. The investigations revealed that such practices had become normal by the sector and the several million Euros spent, were considered as completely ordinary spending by large construction companies. (Van Den Heuvel, 2005).

It is important to remember that not every deviation, specifically the ones that are a natural phenomenon in organizations, such as conflicts, necessarily equate to deviance becoming normalized. The problem arises when generally unacceptable behaviours become culturally embedded and counter-productive but remain viewed as a normal part of organizational processes (Pinto, 2014). Although normalization of deviance, as described by Vaughan, has long been considered the key to the causes of disasters, other people (Vance, 2016) have referred to this phenomenon as being a potential signal of greater endemic problems in the system and organizations, which in hindsight could have been detected and acted upon to reduce the undesired consequences. One approach to avoid deviances becoming normalized is to attempt to detect possible warning signs of these deviances, in order to take the necessary corrective measures (Nikander, 2002). These signs can be detected by both internal and external actors within the organizational context.

In all the examples mentioned above, the role of external actors in the context within which these organizations performed and their potential contribution to normalizing deviance over time, has been considerable. In the case of Nasa's Challenger, part of the criticism was targeted at governmental funding mechanisms that favoured short-term solutions and the US congress funding strategies for complex engineering projects (Cass, 2016). In case of Volkswagen, the United States Environmental Protection Agency (EPA) was the one who noticed and pointed out the violation of the Clean Air

Act (United States federal law designed to control air pollution on a national level) causing further investigations on the case (Chappell, 2015). In the Charbonneau Commission case, the Quebec's anti-corruption police force (UPAC) blew the whistle on how for years the mayor's party and a Montreal city official contributed to the corruption (Saint-Martin, 2015). And finally the post-investigations of the Dutch Fraud reveal that the whole sector including individual politicians and higher level public servants had also contributed to normalizing the deviance leading to irregularities in the Dutch Construction Industry (Van Den Heuvel, 2005).

In this article, we will look at the deviances which became normalized over time, in light of the early warning signs lens and how ignorance of possible early warning signs by the external actors, can contribute to normalizing deviances.

In the examples mentioned above, normalizing deviance is discussed in regards to failure of products or processes, however, research on the phenomenon of normalizing deviance in an organizational context and how it can affect the practices is scarce. The main contribution of this article is to provide better understanding on how deviance can become the norm within the organization and the role of external actors in normalizing deviance within construction organizations. This will be done through analysing the case of Carillion, which is the most recent case of construction organization failure at such a large scale. In this study we will answer the following research question: How is deviance normalized over time and what is the role of external actors in normalizing deviance within construction organizations?

The remainder of this article consists of the following sections. The first section includes the theoretical background for the research. Secondly, the research design will be presented. The subsequent sections include the description of the case of Carillion and

the research findings. Finally, the discussion and conclusions of the research are presented.

Theoretical Underpinning: Normalizing Deviance Over Time

This study relies on a theoretical combination of Vaughan's (1996) and Pinto's (2014) definition of the phenomenon of normalization of deviance, Warren's (2003) idea of destructive deviance and Hajikazemi's (2015) characterization of the early warning procedure. The connection between these concepts is presented in Figure 1.

Figure 1 is here

Deviance and Normalizing Deviance as a Temporal Process

There is a growing amount of research in management literature which examines organizational behaviour as a characteristic of the institutional context in which it operates in (Earle et al., 2010). Deviance in organizations has been studied by management researchers for the last century, defined as the departure from norms (Warren, 2003). Bettenhausen and Murnighan (1991) define norms as "regular behaviour patterns that are relatively stable and expected by a group's members" (1991:21).

Warren (2003) found that deviance could be either constructive or destructive. In order to determine if the deviance is constructive or destructive, the deviant behaviour must be compared to some measure or standard of what should or ought to happen. Deviance in organizations include: 1) behaviours that break or depart from some reference group norms and 2) behaviours that are socially or organizationally harmful (Warren, 2003).

Deviance can be political deviance (Robinson and Bennett, 1995), personal deviance (O'Leary-Kelly et al., 1996), illegal corporate behaviour (Baucus and Baucus, 1997) production deviance (Hallinger and Clark, 1982), property deviance (Robinson and

Bennett, 1995), lying (Grover, 1997) or misbehaviour (Vardi and Weaner, 1996). Throughout the last fifty years, there has begun to emerge an empirical organizational deviance literature with a large number of research studies of corporate deviance and governmental deviance (Warren, 2003). According to Warren (2003), these studies have shown that:

- (1) To become deviant, an action must be contrary to norms maintained by actors external to the subject organization.
- (2) The action must find support in the norms of a given level or division in the organization.
- (3) The action must be known to and supported by the dominant administrative coalition in the organization.
- (4) New members must be socialized to participate in it.

In sum, organizational deviance can be defined - and refers to actions attributed to an organization which is labeled deviant because it violates the normative expectations surrounding the organization (Ermann and Lundman, 1978). Some might argue that the mere departure from a norm, indicates a destructiveness itself, because individuals and organizations should abide by the norms of the reference group (Warren, 2003). This approach however does not address the context in which the reference group operates. Some management researchers therefore incorporate societal values into their conceptualization of deviance (Vardi and Wiener, 1996).

To avoid the problems of only using organizational standards for judging deviance, the use of global standards such as hypernorms were necessary. Hypernorms are globally held beliefs and values (Donaldson and Dunfee, 1999). Hypernorms are based on shared values across countries. Deviance can then be classified into two

categories: Reference group norms and normative standards (hypernorms). If an organizations actions deviated from both reference group norms and hypernorms, the deviance is classified as destructive deviance (Warren, 2003).

The phenomenon of normalizing deviance is born as a result of organizations repeatedly performing actions or decisions which have the potential to cause disastrous results. What makes these actions a normalized deviance, is the fact that they are repeatedly violating defined and established standards, rules and norms, without being frowned upon thus becoming the usual way of doing things. In this article, we refer to Pinto's definition: "a cultural attitude that consciously creates conditions in which mistakes are made; in effect, it provides a perfect environment for corporate misbehaviour" (Pinto, 2014).

However, it is important to distinguish between normalized deviance and conscious wrong-doing. The normalization literature distinguishes between factors that lead to the development of organizational deviance and factors that lead to deviance becoming normal. A permissive ethical climate, an urge to achieve financial goals at all costs, and the opportunity to act immorally, contribute to managerial decisions to initiate deviance (Ashforth and Anand, 2003; Brief et al., 2001).

Normalizing deviance refers to a phenomenon whereby individuals/organizations commit or observe behaviour that is interpreted as deviating from generally accepted norms in their context. If the deviation appears to have no serious negative consequences, it might be repeated, and given the same outcome, the norms are gradually adjusted so that this behaviour becomes more and more accepted and eventually the new standard. People involved in this process will typically not consider this to be wrong, but rather an evolution of practice that occurs as organizations and their practices change and develop over time.

Although research on normalizing deviance often focuses on individual firms or organizations, it is important to note that certain deviances are “not merely a matter of misbehaviour by a specific organization, group or individual” (Misangyi et al., 2008, p. 750). According to Earle et al. (2010), if deviant behaviour is allowed to continue without being checked, within a community of organizational actors, it is likely that it becomes established and thus difficult to change over time.

Early Warning Procedure and Barriers to Normalizing Deviance

From studies of the history of organizations that have resulted in either failure or remarkable deviations from their goals, businesses do not result in total failure in a relatively short period of time. In retrospect, it is often possible to point out several of the most likely factors contributing to problems and can usually also identify a number of signs of the ensuing failure. Those signals, often in hindsight, appear obvious and it is hardly possible to understand why they were not taken into consideration at the time. One approach to avoid deviation from the original goal is to attempt to detect possible warning signs of problems, in order to take the necessary corrective measures (Nikander, 2002). Early warning signs is defined as “a specific element, happening or event which shows that the risk event will actually realize. This sign does not provide information on the exact time of the materialization of risk; neither does it reveal its expected magnitude. Rather it acts as an alarm which triggers action in order to either prevent the realization of the potential problem or possibly lessen the undesired consequences.” (Hajikazemi, 2015, p. 13).

Hajikazemi (2015) in her study indicates that it is a major challenge for organizations to react sufficiently quickly to the identified warning signs of project problems in order to avoid the occurrence of those problems. There are specific barriers

to organizations' ability to respond to identified warning signs. This can be a result of the organization accepting the deviation because they have not yet experienced undesired consequences, thus making the early warning signs meaningless. This may be due to many reasons, such as time pressure, a tendency for optimism, the effects of politics (Williams et al., 2012), over-optimism, lack of tolerance of warnings, and lack of an outside view (Lovallo and Kahneman, 2003), or the 'normalization of deviance' (Pinto, 2014).

In the following sections we will describe the contributing factors to the failure of Carillion and investigate whether these factors were identified timely or they were seen as a normal part of the business to the point where the business collapsed. It is important to note that given that we have based our study solely on publicly available data and the lack of sufficient internal organizational data, our primary focus will be on the external actor's responses to the early warning signs of failure.

Research methodology and methods

In this article, we have investigated a British multinational facilities management and construction services company (Carillion) which has experienced severe consequences. The case has been chosen through investigation on options where the elements of normalizing deviances were identifiable. The case of Carillion can be therefore considered as a revelatory exemplar on normalizing deviance. Taking into account the gap in knowledge in this area, we have chosen a processual single case study approach in order to better understand and describe the phenomenon of normalizing deviance and its drivers (Hayes et al., 2015; Langley, 1999; Siggelkow, 2007). In analysing the normalizing deviance from a process perspective, we were particularly interested in understanding how the events, choices, decision-making, early warning signs and responses to them, that were contributing to the collapse of Carillion and could

be associated with normalizing deviance, were unfolding over time in the context of the case organization and its stakeholders. The case study approach can be considered as appropriate as it is able to reveal the dynamics within the given context (Yin, 1989).

The theoretical reasoning is primarily inductive; based on the case analysis and its interpretation we build on the existing constructs of normalization of deviance and early warning signs to develop new knowledge of how the process of normalizing deviance may unfold and how early warning signs relate to it.

The approach to this study was qualitative and the empirical data was derived from publicly available information including: 1) Annual report and accounts documents published by Carillion from year 2000 to 2016, 2) Selection of relevant articles published by the House of Commons and National Audit Office on Carillion between years 2013 and 2019, 3) Selection of relevant articles published in electronic periodicals and newspapers on the case of Carillion between years 2016 and 2018 (a total of approximately 120 articles) including The Guardian, BBC and Financial Times, which have monitored the company closely over these years.

We are aware that the data and evidence arise from the perceptions and interpretations of the industry and news reports and therefore they should be considered subjective. The different range of actors involved in the reporting process adds another layer of subjectivity, which calls for interpretations to identify patterns and certain factors of significance. Therefore, we can call this research methodologically qualitative and interpretative both in nature and in research design (Myers, 2008). Nevertheless, we have endeavoured to reduce the subjectivity and increase rigor in our secondary data analysis. This has been done through treating the secondary data with appropriate scepticism about its technical and conceptual basis and transparently indicating the limitations inherent in our analysis. We have collected data from as many different data sources as possible and

have analysed the data in a team of 5 researchers from different countries and institutions, with different research backgrounds and over an extended period of time, to minimize potential biases in treatment of the data. In addition, we have seriously taken the ethical considerations into account by adhering to the three ethical principles of justice, respect for individuals and beneficence (The National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research, 1979).

After collecting the secondary data, we conducted a secondary data analysis in order to make sense of the published data on the case (Hakim, 1982) and to address our research question of how deviance becomes normalized over time and what is the role of external actors in normalizing deviance within construction organizations. While secondary analysis is flexible and can be utilized in several ways, it is also an empirical exercise and a systematic method with procedural and evaluative steps, just as in collecting and evaluating primary data (Johnston, 2014).

The qualitative data were content analysed in various rounds. During the first coding round we recorded all indicators related to potential thematic categories relevant to normalizing of deviance as they emerged. These included significant events, decisions, choices and actions that were reported to have taken by Carillion and key stakeholders. During this process also the timing of the indicators was recorded. The reference points for the deviances are “The UK Corporate Governance Code” and “Government Prompt Payment Code”. These codes were numerous mentioned in the post-mortem analysis of the case. The first code, held by the Financial Reporting Council (FRC), states that the “underlying principles of good governance [are] accountability, transparency, probity and a focus on the sustainable success of an entity over the longer term” (Financial Reporting Council, 2016). The latter is the “Government Prompt Payment Code” which Carillion was a signatory member of it. The Prompt Payment Code (PPC) sets standards for

payment practices and best practice and is administered by the Chartered Institute of Credit Management on behalf of the Department for Business, Energy and Industrial Strategy (BEIS). Compliance with the principles of the Code is monitored and enforced by the Prompt Payment Code Compliance Board. The Code covers prompt payment, as well as wider payment procedures. The content analysis focused on how Carillion breached these codes and adopted a deviant practice as a habit, over the years.

Based on the theoretical framework chosen for this research, our justification for deviances which became normalized overtime, are the ignored early warning signs of breaching the codes. At the point when any new categories did not emerge, the list of categories was deemed to have reached saturation. The process we followed to come up with the coding tree is presented in Figure 2. As mentioned earlier, due to limitations of this study regarding lack of sufficient internal organizational data, we have focused on identifying the responses to the possible early warning signs, by the external actors, in particular the government and auditors. The coding tree is presented in Figure 3.

Figure 2 is here

The collected thematic categories were grouped into three broad thematic categories during the second coding round that were related to top management decisions leading to the collapse of Carillion, government's approach and auditors' role. These categories were chosen through combining a priori knowledge of the research topic and understandings of the content of the sample that emerged from the close reading of the articles. We then applied a constant comparative method to compare data in the same conceptual category in order to clarify and develop ideas about each category and its interrelations with others (Miles and Huberman, 1994). The categorization of the thematic codes with similarity formed a foundation based on which the themes emerged (Hsieh and Shannon, 2005; Saldaña, 2013; Kerrigan, 2014).

Figure 3 is here

Having identified the deviances and their sources, the next step we took was to investigate the process leading to the adoption of deviant practices which over time resulted in failure (Figure 4). In this process, we positioned the identified evidence related to the ignored warning signs and normalized deviances to the timeline between 1999-2018.

Figure 4 is here

Concerning the validity and reliability of this research, the use of secondary data, archival records and documentation, has both upsides and downsides. According to Yin (1989, p. 17) archival analysis in case study research can be used to answer questions as what, how often and when. The use of archival data can also be considered as particularly suitable for studying longitudinal event chronologies (Langley et al., 2013). However, typically archival and documentary data are completed with other types of evidence such as interviews for the purposes of triangulation. Hence, our sources of evidence may potentially affect the validity of our findings (Yin, 1989). However, one advantage of the use of this kind of rich and public data is the fact that we can openly discuss the data and our findings in the analysis, by posing the data and the findings for public critique. Such public critique may help to test the correctness of the content of our analysis. Since our findings are based on one specific construction organization, and our literature review is primarily focused on the literature addressing the construction industry in specific, our results should not be generalized in a too straightforward manner outside such projects and contexts.

Research findings and discussions

The result of our extensive study on the published company reports since 2001, the

parliament reports containing the post-mortem analysis of the collapse, and the news volume both prior and after the liquidation, will be presented in this section. We have broken the life cycle of Carillion into two main periods; the period of growth through acquisitions (1999 – 2016) and the period of emergence of financial difficulties (2015 – 2018) which ends by the collapse (See Figure 5).

Based on our studies, the collapse of Carillion can be traced back to many different reasons including lack of coherent acquisition strategy beyond removing competitors from the market which also resulted in the inability to generating higher margins (House of Commons, 2018) and failure to deliver the four big infrastructure projects based on a PPP contract from the government (Goodley, 2018). However, there are only several elements which comply with the definition of normalizing deviance, as they refer to repeatedly violating defined and established standards, rules and norms, without being frowned upon thus becoming the usual way of doing things (Pinto, 2014).

Carillion grew through on-going acquisitions, acquiring all or part of 10 businesses, in total worth over £1 billion, between 2001 and 2015. Senior executives at Carillion had for a long time followed their strategy of growth through external acquisitions rather than aiming for internal growth, to boost short-term profits and to win major contracts. This process which started in 2001 by acquiring 51% of GT Rail Maintenance, ended by acquisition of majority stake in Ask Real Estate in 2016. The acquisition strategy of Carillion has been identified as one of the reasons for building up problems over time (House of commons,2018). From having less than 5% of its shares shorted at the beginning of 2015, over 20% of Carillion shares were on loan to hedge funds by summer 2016; the company's share price fell 19% over the same period, however the firm did not make any major changes to its strategies for growth, neither to its payment of dividends to shareholders.

The financial difficulties of Carillion started as early as 2015. Concerns started rising over the company's accounts and whistle blowers exposed counterproductive practices which were being repeated. Our findings show clear evidence of early warning signs of breaching the codes which were ignored. We will be looking at the external actors' role in responding to these early warning signs as contributing factors to normalizing deviance over time.

In our attempt to answer the research question of how deviance becomes normalized over time and the role of external actors in normalizing deviance, we identified three main areas which in hindsight clearly appear questionable, but became accepted and standard practice over time. These include:

- Accounting practices that made the financial position look better than what is was and hid increasing financial responsibilities and problems.
- Transferring the consequences of its weak financial position to suppliers, by delaying payments.
- Payment of high dividends to shareholders despite the poor financial performance of the firm, its increasing pension deficits and reduction in cash from operations.

In Figure 5, we have demonstrated the events which could have acted as early warning signs addressing a potential failure in the future. As seen in the figure, the financial difficulties rose as early as 2015 however not only were these warning signs not acted upon internally, but the external actors did not respond to them either, contributing to normalizing deviance. As earlier mentioned, access to internal organizational data has been impractical therefore the main focus has been on how the external factors led to

normalizing deviance and thus highlighting the important role of the external actors in the construction sector.

The three sections that follow from here introduce the three deviances normalized in the case. The boxes which are labelled by A, B and C present the early warning signs related to each of the three areas of normalized deviance. Our justification for our claim is the fact that they reveal clear breach of codes and also no actions have been taken to respond to them. The boxes labelled by D and E represent the external actors' respond to these early warning signs which in this case is awarding major contract to Carillion by the government (D) and showing no concern over the reports despite all the evidence of aggressive accounting, by the auditors (E).

Figure 5 is here

Late payment to suppliers

to Government's Prompt Payment Code, signatories are expected to pay suppliers on time, give clear guidance to suppliers and encourage good practice. They should pay 95% of invoices within 60 days unless there are exceptional circumstances,¹⁵⁶ undertake to work towards 30-day payment terms, and avoid practices that adversely affect the supply chain. Despite being a signatory of this code, Carillion had over the years, a reputation for late payment to suppliers. Carillion forced standard payment terms of 120 days on suppliers however, they could get paid earlier if they took a discounted payment. In 2016, the Federation of Small Business (FSB) protested to the company on behalf of suppliers waiting up to 126 days to receive the payments they were owed. A case of "reverse factoring" was already reports however the company's approach to suppliers' did not change until the end of its life.

According to FSB, this had become a trend however the directors all claimed not to recognize cases of people waiting 120 to 126 days for payment. For a long time, Carillion made its suppliers think budget is tight and thus making them wait for over 120 days for their payments. The company applied “reverse factoring” to convince the suppliers for the late payments.

Later, the MPs accused Carillion of displaying ‘utter contempt’ for its suppliers by using them as a line of credit to shore up its balance sheet while concealing the scale of its debt (Ames, 2018). In 2013, the Forum of Private Business – an SME lobby group – warned that corporations could abuse the Government’s “Supply Chain Finance Scheme”. However, the government assured all FTSE 100 and 250 businesses that they will be publicly named and shamed in the new year if they fail to sign up to the Prompt Payment Code. Carillion who was a signatory of the Prompt Payment Code, also defended this by stating that all suppliers gain the flexibility to decide when they receive payments in respect of approved invoices and most suppliers can benefit financially, because they can receive payments earlier than under their existing terms. This however in practice was a way which Carillion could flexibly manage its own capitals (Coppola, 2018).

In December 2017, Santander Bank in UK terminated the “automatic part” of the scheme “Supply Chain Finance Scheme”, which was launched in October 2012 in response to complaints from SMEs that damage limitation by corporations and banks in the aftermath of the 2008 financial crisis was driving lots of them out of business. The reason was that Carillion had doubled its payment periods to 120 days and told suppliers that they could access the money within 30 days but only by paying a fee to the banks providing the finance. It was effectively able to keep the cash on its books by holding on

to money owed to suppliers. This was later not only recognized by Carillion, but rather blamed for withdrawing the facility (Plimmer, 2018).

Aggressive accounting

The code which was breached in this case was the UK Corporate Governance Code. According to this code, which Carillion was a signatory of, the directors should explain in the annual report their responsibility for preparing the annual report and accounts, and state that they consider the annual report and accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the company's position and performance, business model and strategy. There should be a statement by the auditor about their reporting responsibilities.

In 2017, a new finance director was appointed who raised concerns over the state of the construction company's accounts, acting as a "whistle-blower", according to the minutes of board meetings from May 2017. The documents published by the joint work and pensions and business committee show that up to three months before the company issued its first profit warning and announced a fatal £845m write-down, the new finance director "identified that negative accruals had been applied to nine projects, of which two (Battersea and Liverpool) comprised the great majority of value. The finance director described this finding a shift to more "aggressive accounting". The board conducted a review of accounting treatment for receivables following the finance director (at the time) concerns. This was reviewed by KPMG. The review concluded that assets had been misclassified but there had been no misstatement of revenue. This acted as a trigger for wider review of contract positions.

Carillion, however, kept silver lining the accounts although the debts and pension deficits were rising. The documents published by the joint work and pensions and business committee show that up to three months before the company issued its first profit

warning and announced a fatal £845m write-down, Mercer, CFO of Carillion, told managing director Adam Green that she had “identified some issues with which she was not comfortable.” Mercer was tasked with producing a report for the progress review meeting on 26 April, and working with her predecessor Zafar ‘identified that negative accruals had been applied to nine projects, of which two (Battersea and Liverpool) comprised the great majority of value.’

In previous joint committee session Mercer described finding a shift to more “aggressive accounting” upon her return from Canada. This however did not stop the company from bidding for large projects and neither the government from awarding these contracts to Carillion. In addition, the auditors were strongly criticized for not identifying the flaws in the accounting and signing off the company’s accounts as clean. In March 2017, the firm expressed no concern over reported profits of £150m. This had been also reviewed by KPMG. The review concluded that assets had been misclassified but there had been no misstatement of revenue. Just four months later these proved to be illusory and a profit warning was announced.

After only six weeks in the role of CFO at Carillion, Emma Mercer was raising concerns over the state of the construction company’s accounts, acting as a “whistle-blower”, according to the minutes of board meetings from May 2017. The documents published by the joint work and pensions and business committee show that up to three months before the company issued its first profit warning and announced a fatal £845m write-down, Mercer has stated that she had “identified some issues with which she was not comfortable.” In June 2016, From having less than 5% of its shares shorted at the beginning of 2015, over 20% of Carillion shares were on loan to hedge funds by this time; the company's share price fell 19% over the same period. In 2017, three profit warnings

were announced however, the company was awarded several major contracts from the government.

Payment of high dividends to shareholders despite the troubles financial status of the firm

According to the UK Corporate Governance Code, the remuneration committee should determine an appropriate balance between fixed and performance-related, immediate and deferred remuneration. Performance conditions, including non-financial metrics where appropriate, should be relevant, stretching and designed to promote the long-term success of the company. Remuneration incentives should be compatible with risk policies and systems. Upper limits should be set and disclosed.

In the years preceding its collapse, Carillion's profits did not grow at a steady rate, and its cash from operations varied significantly. In 2012 and 2013, the company had an overall cash outflow as its construction volumes decreased. But in these years the board decided not only to continue to pay dividends, but to increase them, even though they did not have the cash-flow to cover them. Later it was identified that Carillion paid a total of £376m in dividends to shareholders, from 2012-2016 despite making just £159m cash and piling up debts.

Although Carillion's objective in dividend payment was to balance the needs of many stakeholders, Over the six years from 2011–2016, the company paid out £441 million in dividends compared to £246 million in pension scheme deficit recovery payments. Despite dividend payments being nearly twice the value of pension payments, the directors later denied that dividends were given priority. From 2009 to 2016, Carillion paid out £554 million in dividends, 75% of the cash made from operations. From January 2012 to June 2017, Carillion paid out £333 million more in dividends than it generated in cash from its operations. From December 2009 to January 2018, the total debt of Carillion

increased from £242 million to an estimated £1.3 billion – more than five times the value at the beginning of the decade.

In 2015, UBS analyst Gregor Kuglitsch highlighted the company's extended supplier payment terms and its use of 'reverse factoring'. He argued Carillion was more leveraged than it reported, and predicted a "profit shortfall" was likely. At the same period Carillion was paying high dividends to shareholders and the debts were growing continuously. Acquisition of 100% of the Outland Group, a specialist supplier of camps and catering at remote locations in Canada and a majority stake in Ask Real Estate, a Manchester based developer took place shortly after this warning.

The directors had a desire to present the company to shareholders as a company being able to pay sustainable dividends however, given the significant rise in pension deficits over the years and the decrease in cash from operations was inconsistent with the long-term sustainability of the company, yet accepted as the usual way.

Carillion paid out dividends of £376m over the five-year period from 2012 to 2016 while it generated just £159m of net cash from operations. The group's dividend continued rising even as the cash flow to support it evaporated. It ran up debts and sold assets worth £217m to continue paying dividends to shareholders (House of Commons, 2018).

How did external actors contribute to normalizing deviance?

As earlier mentioned, the role of external actors in the process of normalizing deviance is critical. In the case of Carillion, it is evident that there were clear early warning signs indicating potential future problems. These signs, as presented in Figure 5, include issues related to relationship with suppliers, evidence of aggressive accounting and payment of high dividends despite the poor financial performance of the firm. These could have

sounded the alarm with sufficient volume, and possibly slowed down or stopped this process before Carillion ultimately collapsed.

What seems unique in the Carillion case compared with other cases reported in literature (from space/aerospace, health, aviation, etc.) is the role of external actors. We have shown that especially two types of external actors played important roles in the process toward the demise of Carillion; the auditors and the government. Similarly, for the government, which awarded contracts to Carillion which transferred high levels of financial risk to the company, the former was tasked with claiming the company's accounts were clean, while in hindsight it was proven that this was not the case. Our findings suggest that although the irregularities were mainly due to internal deviance from well-recognized and accepted codes of practice, the external factors contributed to the process of normalizing deviance by simply overlooking the warning signs and putting the firm in a position to adapt to the new normal. As shown in Figure 5, huge contracts were awarded to Carillion after the financial difficulties had clearly been exposed and the auditors showed no concern over the reports while members of the board had clearly blown the whistle.

Although one might argue that the government did not have any other options, the House of Commons public administration and constitutional affairs committee (2018) mention flaws in the way the government awards contracts because of “an aggressive approach to risk transfer”. The report states that ministers try to spend as little money as possible when awarding contracts while forcing contractors to take unacceptable levels of financial risk (Wearden, 2018).

In July 2017, Carillion's share value fell 70% from 10 July. Ernst & Young was appointed to support its strategic review with a focus on cost reduction and cash collection and HSBC was appointed as new broker. At the same month, despite all the complications

involved with the company and the first profit warnings announced, the government awarded the £1.34 bn HS2 contract. In November 2017, the third profit warning was issued, alongside an announcement that the company was heading towards a breach of its debt covenants. At the same time, the government awarded Carillion the £130 mill contract for London -Corby rail electrification project.

Both the auditors and the government were in a position where particular early warning signs were seen, however clearly the warning signs were not fully responded. Due to lack of access to internal data from the organizations, it is difficult to precisely know to which extent this was due to the described mechanisms of normalizing deviance and more deliberate choices even when aware of the consequences. However, the fact that two other levels of key players outside the company itself failed to halt or reverse the negative spiral before the collapse happened, adds to the capacity for such processes to push on beyond all boundaries and control mechanisms that should be in place to avoid failure.

This is based on our investigations on the case of Carillion, due to auditing firms mainly accounting for revenue, alongside the limited choice of auditors for large firms. The case of Carillion was not the first time auditing failures led to disaster. Indeed, all the UK's big banks were thoroughly audited during the 2008-09 financial crisis. A clear example is when KPMG signed off on the books of HBOS multiple times in the years before the bank's loans eventually destroyed it in 2008 (Chu, 2018). The shortcomings in audit quality is not a new problem. The Economic Affairs Committee report in 2011 states that "the financial crisis revealed the failure of just about everybody ... [but] the auditing profession, the accounting profession, cannot be excluded from those who must share responsibility and, more importantly, seek to learn lessons." (House of commons, 2011). According to Bhaskar and Flower (2019), the collapse of Carillion, which is a case

that has attracted the most severe criticism after Enron, is pivotal in the future of the audit market and calls for a major change to financial reporting, watchdog and auditing.

The case of Carillion also reveals that although the government's strategy towards privatization has not been completely successful as many private contracts have failed (Bowman, 2015), the approach of government towards transferring risks to private contractors has become a norm in the industry (Monibot, 2001). There has been immense criticism towards the Private Finance Initiative (PFI) which started decades ago in the UK and has most recently flourished. This initiative has had a specific aim to build schools, hospitals and infrastructure without adding debt to the government's balance sheet thus transferring the risk to the private sector. Two examples of projects which brought Carillion to the end point were the construction of PFI hospitals (the Royal Liverpool and the Midland Metropolitan), on which severe losses were incurred (Hopper, 2019).

The aftermath investigations on the case of Carillion suggest a number of learnings such as workplace rights, corporate governance style and outsourcing strategies (TUC, 2018) however little has been discussed regarding the role of the external actors and their influence on the formation of normalizing deviance in the construction sector as a whole. Although construction project organization due to their particular characteristics are prone to normalizing deviance, the environment within which these organizations operate in can also play a key role in the extent to which deviances become a norm. Internal and external audits are designed to prevent the failure of businesses and if their malfunction, as in the case of Carillion, becomes a norm, other businesses in the sector can become prone to loss, leading to losses for the wider stakeholder group as well. Although standards and regulations such as "UK Corporate Governance Code", "Government Prompt Payment Code" and "Supply Chain Finance Scheme" are designed

to protect businesses, if the regulators do not use their power to put sanctions on those who breach these codes, they are contributing to counterproductive practices becoming normalized.

This view of the Carillion collapse, based on these factors, is in line with existing theory on the phenomenon of normalizing deviance, as outlined by Pinto (2014), Starbuck and Farjoun (2005), Vaughan (1996) and Starbuck and Milliken (1988). The developments described did not happen abruptly, but gradually over years. Practices that at first probably would have met some reactions within the company, or even resistance, were pushed through and over time embedded in the ways things were done. As such, the Carillion case is another empirical example of how this phenomenon exists in different types of industries, in this case in construction. The characteristics of this industry, with high competitive pressure, low profit margins, complex and uncertain undertakings all contributed to the emergence and sustainment of the questionable practices.

No firm is an island and normalizing deviance, although is dependent on the characteristics of the projects and organizations, can be triggered by discrepancies in the external environment as well. This is in line with findings of Koksal and Arditi (2009) who argue that environmental factors account for 60.7% and organizational factors for the remaining 39.3% of all the determinants of failure. Indeed, it is important to note that in this study we have mainly discussed this phenomenon in the UK context, however, we believe the findings from this study can be generalized to any context with similar attributes. It is also important to note that we do not seek to apportion blame but to draw lessons from how the responsibility of failure is in hindsight often shared by different players in the system.

Conclusions and further research

Our analysis of the case revealed three distinct types of deviances that became normalized over time: late payments to suppliers, aggressive accounting and payment of high dividends to shareholders despite the troubled financial status of the firm. We observed that while in hindsight, these practices can be viewed as unacceptable, their development was a gradual process that took place over a course of multiple years, indicating that normalizing deviance is likely to be difficult to detect in the initial stages of its emergence. Our results portray that normalizing deviance can be triggered by discrepancies in the external environment of organizations. The characteristics of the construction industry, with high competitive pressure, low profit margins, complex and uncertain undertakings, etc. probably all contributed to the emergence and sustainment of the questionable practices as well.

The main practical implications of our study relate to the prevention of emergence of normalizing deviance in construction sector firms. Firstly, as the development of normalizing deviance was observed as a gradual and ambiguous process, a mechanism for voicing concerns over practices adopted in project-based organizations would be important. In other words, having an effective early warning system which detects the emergence of normalizing deviance in early stages where it is still feasible to prevent or minimize undesired effects, is crucial. This kind of “whistleblowing” channel would support the formal and transparent evaluation and correction of practices that might be considered unacceptable by individuals not directly involved in the practices. Secondly, as many of the deviances identified in this study involved relationships between the focal firm and its external stakeholders, the mechanisms for voicing concerns should not be internal to a single organization. As there are principal-agent relationships between the stakeholders (e.g. construction contractor acts as supplier for the government, and

auditors act as suppliers of the construction contractor), it should be possible for individuals to operate the mechanism without revealing their identity or the identity of their own organization.

A reasonable understanding of the situation under which organizations get accustomed to deviant practices and forming an environment where cues and warning signs of deviations are constantly monitored, consolidated and acted upon, can be an approach that organization managers can adapt for reducing the risk of normalizing deviance. It is at the same time important to identify the endemic problems and the dominating culture that lead organizations to normalizing deviance.

This study focused on normalizing deviance in construction organizations and as such it did not address this phenomenon in specific projects. As societally significant infrastructure projects frequently span several years, it would be reasonable to expect that such a context could provide fertile grounds for normalizing deviance to develop in. In addition, as project-based organizations have been found repeat their internal practices in their delivery projects, it is also likely that normalizing deviance at the level of the project-based form and at the level of individual projects are related phenomena.

Clearly, reversing deviances that have become normalized over time is very challenging and difficult unless a new institutional logic which condemns this is in place (Misangyi et al. 2008). In addition, for the construction industry to improve its performance and competitiveness, there is a need for a cultural and behavioural shift in the mind-set of practitioners, academics and the professional institutions (Love et al., 2000). A shift in focus from individual guilt to systems and processes is central to the culture change facing construction sector. Once deviation is entrenched, rooting it out is challenging. Keeping it out adds another challenge. Other industries have successfully turned deviance around, providing lessons learned available for healthcare to borrow.

High-risk industries such as airlines now meet the standard of being high-reliability organizations. Achieving this level of reliability required a culture change in those industries (Price and Williams, 2018). The authors would welcome research addressing this theme.

As mentioned earlier in this article, normalizing deviance is a gradual process where its identification requires a thorough analysis of events in an extended period of time. In this article we have based our discussions solely on the secondary data publicly available on the case. A fine-grained analysis of the practices which can potentially become normalized over time requires a longitudinal research within the organization over an extended period of time. This was clearly not an option in this article as the current research started one year after the liquidation of Carillion, with no chance of access to the internal actors within the organization. Nevertheless, despite the limitations of this study, we believe the findings contribute to better understanding of the normalizing deviance phenomenon, how it can lead to undesired effects for organizations in the long run and the role of other actors in the environment within which the organization operates in, in the emergence of this phenomenon.

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