

People, performance and transition: A case study of psychological contract and stakeholder orientation in the Toyota Australia plant closure

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Abstract

Operations managers often manage in times of change that exert pressure on values and methods usually developed during more stable eras. With increasing global volatility, companies open and close plants because of demand shifts, cost and reshoring considerations, and government-induced and market forces. Impacts of plant closures on local communities, employees, suppliers, and other stakeholders have been documented, but plant closure processes have not been extensively studied. This paper describes an engaged research study of Toyota Australia's manufacturing closure processes. We apply psychological contract theory, particularly of contract breach, to examine the "respectful" approach Toyota used to close its assembly operation in Melbourne. We examined the role that stakeholder theory plays in describing managerial motivations. Toyota allocated resources beyond typical expectations to prepare its workforce for their post-Toyota careers and lives. During the 4-year transition process, employee performance, and engagement improved, supporting propositions that reserves of employee goodwill can come into play when a psychological contract breach occurs. Further, leadership actions can moderate the negative impacts predicted by that theory, beyond outcomes that more transactional views would predict. Our study offers an elaborated model of psychological contract breach that future researchers can apply to plant closures and related operational contexts.

KEYWORDS

employee engagement, organization values, plant closure, psychological contract, reskilling, stakeholder theory, Toyota, upskilling

Highlights

- When a psychological contract breach or major change such as a plant closure occurs, existent goodwill in the workforce toward the company may

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mitigate against the potential diminution of motivation, morale, productivity, and quality. Building a reserve of goodwill therefore creates future value for the firm.

- Best practice in effecting a respectful plant closure includes initiatives that provide upskilling and reskilling to the “leaving” workers; such initiatives minimize deleterious impacts on workers and the community.
- Operations managers should play close attention to ways that their statements and actions shape the psychological contract that exists in the minds of workers, and consider how future actions may violate or reinforce the contract.

1 | INTRODUCTION

Decisions made by operations managers can have tremendous influences on the income equality (or inequality) of workers, their employment potential, and career path opportunities. For example, decisions about core operating values, organizational design, personnel training, and promotional ladders shape the experiences and expertise of employees in ways that may improve or degrade their future employment options. More broadly, decisions about facility openings, upgrades, and closures impact employment and income options for employees, while also affecting the economic and employment prospects of local communities.

Connections between operational decisions and sustainable social welfare are readily visible in the vehicle production industry. The stories of automakers offer numerous examples of both job creation and destruction, as well as both arduous and cooperative relationships between labor and management. Operations managers in automotive firms continually find themselves addressing the conflicting goals of different stakeholders, attempting to balance what is good for owners, for employees, and for members of the community. Policymakers also play important roles, serving to incentivize and/or constrain operations managers' choices.

This paper addresses an important concern of this special issue of the *Journal of Operations Management*, namely, how can operations managers better address links between their decisions, operating values, and socioeconomic outcomes? Helper et al. (2020) suggest that business has a responsibility to provide and improve access to good jobs. Our study examines the ways that Toyota Motor Corporation in Australia (TMCA) sought to promote employment opportunities for employees and mitigate the negative socioeconomic outcomes of their decision in the community while

closing a plant, an act that eliminates jobs. Following an engaged research approach, we report our observations and analysis of Toyota's Camry assembly plant formerly located in Melbourne. This case study illustrates the roles of guiding corporate values and stakeholder concerns in producing an economically effective, yet “respectful” plant closure, located within the context of the larger withdrawal of the automotive industry from Australia in the 2014–2017 period. The atypical processes that Toyota management used to close the plant point out ways that economic impacts and potential inequities might be lessened in such circumstances. Our study develops insights into the TMCA approach to plant closure, which appears to have balanced its organizational value of *respect for people* against other business goals. In addition, our analysis of the TMCA case leads to elaboration of psychological contract theory as a perspective that can be used to describe plant closure processes and outcomes. We employ psychological contract theory to frame the interactions between employees and Toyota management, as a plant closure represents perhaps the strongest possible breach of the psychological contract between employer and employees. In addition, we examine stakeholder theory as a lens through which to view the motivation for operational choices that reflect concerns for various groups. Our findings highlight ways in which operating philosophy and guiding values might be incorporated into theories and managerial actions describing the effects of a plant closure on the firm and its existing employees.

Plant closures occur irregularly, but more frequently during times of global economic change. These events create important opportunities for business firms to greatly impact employment and income in affected communities, either positively or negatively. There is a substantial literature on downsizing, but relatively little coverage of plant

closures from a research perspective. Most existing plant closure studies tend to focus more on reasons for closure or on economic outcomes for the firm or community. Only a few studies examine management processes during closure; none apply theoretical perspectives with a focus on employee responses and stakeholder impacts.

In addition to filling this gap, our study provides a new examination of the core values undergirding the *Toyota Way* philosophy, and within it, the Toyota Production System (TPS). Ours is the first study to examine the implications of the Toyota Way in the context of a plant closure.¹ This study also offers an example of “engaged research” (Touboulic et al., 2020) in operations management, affording insights into the unique circumstances presented by Toyota’s first-ever major plant closure,² a case in which their philosophy and methods were stretched and tested. Our interviews, quantitative analyses, and close involvement with plant personnel over the 4-year closure process enabled an in-depth analysis of the effects of TMCA’s approach to plant closure. The findings suggest ways in which the negative effects of a major psychological contract breach (PCB) may be moderated, how employment prospects might be enhanced, and how future research might more fully incorporate operational actions and corporate values in elaborating psychological contract and stakeholder theories.

The remainder of this paper is organized as follows: we first examine and integrate relevant literatures and theoretical perspectives that we employed to derive insights from TMCA’s transitional process. The next section of the paper describes the context and circumstances leading to the plant closure decision. Section 4 overviews the research method, describing the types of access and data provided through our engagement with TMCA executives, managers, and workers. Then we examine the detailed qualitative and quantitative data developed throughout the engagement process. The final sections interpret the case study findings through the lenses of psychological contract and stakeholder theories, and propose elaborations based on their applications to the TMCA plant closure experience.

2 | THEORY AND LITERATURE REVIEW

2.1 | Psychological contract theory

Psychological contract theory, and particularly the concept of *psychological contract breach* (PCB), provides a useful frame for developing expectations as to how individual employees might respond to a plant closure and

their loss of jobs. Psychological contracts represent employees’ beliefs regarding obligations between them and the organization as an entity, rather than with any specific agent of the organization. While organizational agents may comprehend that psychological contracts exist, the contracts are held by employees alone (Levinson et al., 1962; Rousseau, 1989; Sims, 1994). Psychological contracts can be considered as governing organization-to-employee relationships (e.g., Blau, 2006, 2008; Stengard et al., 2015) or organization-to-organization relationships (e.g., Eckerdt et al., 2013; Hill et al., 2009). Given our research focus, we follow researchers of plant closures and downsizing initiatives who apply psychological contract theory by considering the common elements of psychological contracts that emerge between an employer and its collective employee base (Blau, 2006, 2008; Cappelli, 1999; Guthrie & Datta, 2008; Stengard et al., 2015). A common psychological contract that arises among employees is an expectation that their work contributions will be reciprocated with a positive work environment and continued employment (Datta et al., 2010; Rousseau, 1995; Zhao et al., 2007). Such expectations may develop because of the organization’s direct communications to employees as well as past organizational actions, documents, discussions, and policies (Rousseau & Greller, 1994). For example, the stated and historically evident policies of some organizations such as Toyota raise expectations of continued employee development and long-term employment (Liker & Hoseus, 2010). Consequently, both survivors and victims of plant closures often perceive downsizing and/or plant closure to be a violation of the psychological contract (Datta et al., 2010; Morrison & Robinson, 1997; Rousseau, 1995).

Because psychological contracts are fundamental to employees’ beliefs and experiences, contract breaches create serious consequences. Psychological contract theory suggests that such a breach leads to feelings of violation, which in turn creates mistrust and lowering of commitment, job satisfaction, and performance (Morrison & Robinson, 1997; Zhao et al., 2007). Psychological contract researchers argue that violations by employers decrease the obligations that employees perceive they have toward their organizations (Robinson et al., 1994). However, several studies identify factors that may moderate the effects of PCB on employee affects and work performance outcomes. Zhao et al. (2007) perform a meta-analysis of 51 studies of PCB outcomes inside organizations; they find that transactional breaches such as monetizable exchanges such as merit pay produce more negative effects on employees’ organizational commitment than relational breaches such as personal support and a meaningful job, while relational breaches produce more

negative effects on job satisfaction and turnover intentions. Stoner and Gallagher (2010) show that employees' job involvement including cognitive preoccupation, engagement, and identity lessens the effects of perceived PCB on their levels of depression and turnover intentions. Other studies in this stream (e.g., Orvis et al., 2008; Raja et al., 2004) focus on the roles of personality or other individual differences as moderators of employees' responses to PCB. Importantly, all these studies of PCB examine breaches that do not involve the termination of employees.

Prior studies of plant closures and downsizing are more directly relevant for our research. However, only a few studies in these domains have applied the lens of PCB in evaluating closure and downsizing outcomes. Studies of downsizing frequently reveal that subsequent operational performance deteriorates (Cascio, 1993; Murphy & Murphy, 1996; Fisher & White, 2000; Sadhev, et al., 2001). These and other studies suggest that performance suffers because downsizing initiatives often lack employee retraining or redeployment programs, important specialists are often the first employees to leave, survivors are stretched thin and become self-absorbed and distrustful, and managers become short-term oriented. Though not invoking psychological contract theory directly, several studies suggest that certain factors can moderate employee expectations and behaviors throughout downsizing events. Mishra and Mishra (1994) found positive connections between employee-employer trust and performance outcomes in downsizing circumstances. In follow-on research involving several case studies, Mishra et al. (1998) provide prescriptions for businesses that downsize, such as telling the truth and helping laid off workers to find new jobs and retraining. Datta et al. (2010) provide a useful review and synthesis of research addressing the causes and effects of downsizing. Three of the many findings they identify are particularly relevant to our study: (1) the negative effects of downsizing on job involvement, satisfaction, and loyalty are mitigated by supervisor support, perceived control and empowerment, management trustworthiness, and perceptions of distributive justice as fairness; (2) employees' perceptions of trust and justice are contingent on leader-subordinate relationships, especially those characterized by respect and obligation; and (3) other negative effects of downsizing are less pronounced when employees have greater task self-esteem and greater organizational commitment.

In a rare application of psychological contract theory to a downsizing context, Morrison and Robinson (1997) propose a model in which employees' sense of violation from PCB will be impacted by their prior beliefs about the organization in terms of trust, reciprocity, good faith, fair dealings as well as their judgments regarding the

magnitude of the breach, the degree to which the organization is responsible, and how fairly they were treated. A subsequent empirical study by Robinson and Morrison (2000) validates the effects of the latter two moderating factors. Cappelli (1999) adds that frequent downsizing events in a firm or in the relevant marketplace may shape employees' expectations, thus altering their perceived psychological contracts. An important distinction between these kinds of downsizing research studies and studies of plant closure is that downsizing studies tend to focus on the survivors, rather than exiting employees. Nevertheless, we consider how the findings of downsizing research might be applied to employees who are continuing to work at the plant up until the time of closure, as temporary survivors.

Plant closures are fraught with difficulty (Richbell & Watts, 2000) because they involve loss of economic value, local employment, and other socioeconomic damages. Businesses often close plants quickly such as in a matter of months, leaving little time to reskill workers.³ Stengard et al. (2015) apply psychological contract theory to focus on the stresses and strains experienced by employees during a plant closure process. They assess the degrees to which employee tenure and employability moderate the effects of information and compensation on employee's feelings of well-being and organizational attitudes. Given the expectation of long-term employment that existed at the plant, Stengard et al. (2015) and others suggest that increased services such as generous severance packages and career counseling are ways for the closing organization to shift to a new psychological contract focused on facilitating workers' transitions (Marks & Vansteenkiste, 2008). Presenting a different view, Blau (2006, 2008) examines perceived violation of the psychological contract along with other employee traits as potential antecedents of stages of the grieving process including denial, anger, bargaining, depression, exploration, and acceptance, observed in the closure of a pharmaceutical manufacturing plant. He finds that perceived contract violation is by far the strongest influencer of the negative aspects of grieving, namely denial, anger, bargaining, and depression.

Several studies of plant closures focus on performance trends during the "countdown" period defined as time between announcement and closure. Sutton's (1987) seminal study of organizational death was among the first to suggest that workers' efforts might remain constant or even increase after a closing is announced if the organizations are dismantled by their members and do not involve severe conflict over the distribution of resources and obligations. However, Sutton's sample of eight case studies involved only one stand-alone manufacturing plant of 550 members; other organizations were small

service operations including retail stores, small hospital, and academic unit. Butler et al. (2009) provide a more relevant plant closure case study. They combine operations management (OM) and human resource management (HRM) perspectives to study the 2002 closure of the GM/Vauxhall Motors Luton plant. While focusing primarily on a process model for closure management, they also identify the services offered to departing employees, which included counseling through a third party provider, employment search services, and skills training through a national development agency. Managers at the plant were noted to have been concerned with managing the emotional cycle of employees after the closure announcement. Production performance dipped by about 15% in the months after the plant closure announcement, yet productivity and quality metrics rebounded as the plant came closer to the time of closure. Plant managers suggested that factors including the ability to focus on fewer tasks such as having no new products to worry about, a stable workforce, and moving to a single work shift led to the latter performance gains. They thus attributed performance gains to process-oriented factors rather than motivational or behavioral factors that might be more closely associated with psychological contract theory.

In contrast, Bergman and Wigblad (1999) ascribe performance improvements in post-announcement countdown periods to more behavioral causes. Their study of four plant closures in continuous process industries led them to propose that increased employee creativity is a source of growing productivity, especially during long countdown periods in settings that involve team-oriented processes. They suggest that this countdown effect occurs because employees are emboldened and motivated to become more innovative when managers become less attentive to maintaining bureaucratic policies and procedures and when innovation is needed to overcome limitations due to dwindling worker numbers and halted capital investments. Thus, their arguments focus on employees' behaviors stemming from necessity and opportunity. For example, Bergman and Wigblad (1999) note that by taking charge of tasks normally performed by engineers and by sharing and de-specializing work, employees' innovative skills find "operative space" (p. 365).

Hansson and Wigblad (2006) document and confirm the countdown effect in four closures that they characterize as non-socially responsible, meaning that managers took little consideration of the demands of unions and employees. However, the authors do not offer explanations regarding the causes of the effect. Finally, Hasanen et al. (2011) study the role of goal setting in the closure of a medical manufacturing plant. Their findings suggest that workers' job performance during the countdown

period was improved by clear goal rationale, goal efficacy and actionable plans, and tangible rewards tied to goal achievement.

An integration of the foregoing research literature streams, viewed through the lens of psychological contract theory, leads to the following summary insights. First, employees can consider a plant closure decision to be a violation of psychological contract, probably a severe violation, and this perception is likely to exist among a large proportion of the collective employee base. Second, when employee expectations of long-term employment, perceptions of successful operations as indicated by sales or profits, or other conditional factors exist, a closure event represents an even greater discontinuity shock to the perceived welfare of terminated employees. Third, context and employer-employee interactions prior to the announcement of a closure can influence employees' expectations regarding organizational obligations and fairness, thus serving to define the properties of the psychological contract. Fourth, salient factors that characterize management's handling of the closure process and treatment of employees can serve to exacerbate or mitigate employees' satisfaction and commitment levels, as well as their negative reactions to, and engagement with, stages of the plant closure. These factors can include the structural elements of the closure such as the severance pay, conditions and retraining resources, and the managerial approach such as the degree of empathy and respect shown, and quality of communications during the countdown period. Fifth, these contingencies can further serve to moderate the typical degradations in performance that occur early in countdown periods, as well as the potential countdown effect performance rebound, as described in the literature.

2.2 | Stakeholder theory

Stakeholder theory (Freeman, 1984; Harrison & Wicks, 2013) explicitly considers key groups such as employees and customers, government and unions, shareholders, and executives in seeking to shape and guide strategic actions. The notion of stakeholder theory is articulated in Freeman's (1984) pioneering work. In summarizing Freeman's fundamental idea, Harrison and Wicks (2013) argue that a firm should serve multiple stakeholders, and firm performance should be defined in terms of total value, which is the sum of the utility created for each of a firm's legitimate stakeholders. Stakeholders are identified through the actual or potential harms and benefits that they experience or anticipate experiencing because of the firm's actions or inactions; these include customers, local communities, workers,

and suppliers to whom the firm owes an obligation based on their participation in the cooperative scheme that makes the firm a viable enterprise (Phillips, 2003).

The instrumental branch of stakeholder theory suggests that firms that develop ethical stakeholder relationships such as governed by fairness, loyalty, care, and respect will create sustainable competitive advantages (Jones et al., 2018). In contrast, the focus of our research is on the descriptive and normative branches of stakeholder theory; these perspectives suggest that the theory better explains the characteristics and behaviors of firms that recognize stakeholders' interests as legitimate and intrinsically valuable (Donaldson & Preston, 1995). These views of stakeholder theory dovetail with psychological contract theory in the sense that some firms are more likely to accept the organization's normalized obligations and the psychological contracts assumed by its employees. Freeman and Evan (1990) view such firms as being constituted of a set of multilateral contracts, including formal, psychological, and social contracts with respective stakeholder groups.

While a large body of research on stakeholder theory exists, we are primarily interested in the extent to which firms seek to prioritize and balance the needs of owners, employees, and community stakeholders in downsizing and closure situations. Several plant closure studies noted above document closure effects on various stakeholders, but we found only two studies that explicitly apply stakeholder theory. Fassin et al. (2017) compare closures of seven breweries with varying levels of influence exerted by intra-stakeholder alliances and in two cases the alliances prevented closure. The researchers recommend that managers should consider reputational effects, social capital attached to plants, commitment to social responsibility, and the potential responses from stakeholder groups when contemplating a plant closure. More generally, companies and their executives' value systems can be characterized as either "agents" or "stewards," evidencing actions that prioritize company interests or broader stakeholder interests, respectively. In such a conceptualization (Fassin et al., 2017; Samson et al., 2018), an organization's value system can act as the most influential factor governing a multi-stakeholder utility function. Whereas the policy statements and actions of some organizational agents exhibit a self-oriented approach, others exhibit relatively steward-like orientations.

Shockley et al. (2020) recount the stated rationale and stakeholder impacts of 35 plant closures, using these stories to develop strategic guidance for plant site development that builds upon industrial lifecycle and stakeholder-driven management concepts. They suggest that a greater focus on broad stakeholder interests might create better plant

location outcomes. In related research, some researchers document the economic effects of plant closures on broader stakeholders including customers, suppliers, and local communities. Three studies in particular focus on impacts of management decisions on stakeholder outcomes. Yoder and Staudohar (1985) contrast the shutdowns of two California based auto assembly plants, one by GM and one by Ford. They are critical of the GM closure, citing that GM's approach "created an environment of uncertainty and anxiety, which caused inordinate suffering among workers and sharp public criticism." Further, Yoder and Staudohar (1985) argue that the GM closure caused greater harm to workers and the community than in the Ford closure because of greater ambiguity around timing and permanence of closing and less of a sense of obligation to employees and the community (as evidenced in training and re-employment support). Richbell and Watts (2000) study four cross-boundary closures of plants in multiplant networks. They advise that managers should guard against accusations of misusing government subsidies, playing one government or worker group against another, and favoring the firm's home country. Verity and Jolley (2008) document the negative impacts on social attachments and "communities" formerly built around worker groups in the closure of a Mitsubishi plant in Australia. They argue that companies should give attention to supporting social and community needs in addition to supporting employment, training, and income.

2.3 | Psychological contract theory and stakeholder theory as guiding perspectives

Early on in this research project, we identified both psychological contract theory and stakeholder theory as relevant lenses through which to observe and explain the behaviors, plant operating performance, and employee welfare outcomes of the TMCA plant closure. Given our research goal of exploring how operations managers can better address links between their decisions, operating values, and socioeconomic outcomes in a plant closure context, we believed that these two theories helped to frame and interpret the rich data collected through our engaged research experience. Our primary research focus was on the interactions between employees and Toyota management, and psychological contract theory provided a useful means for understanding employees' responses to both the closure announcement and subsequent management actions. However, we also wanted to understand Toyota's motivations for managing the closure process and the disposition of employees in the ways that they did. It is in this secondary focus that stakeholder theory provided additional insight.

In our initial conversations with the Toyota managers, they expressed interest in identifying conceptual frameworks and theoretical underpinnings that could bring insights to their closure program and be informed by Toyota's actions in return. When presented with psychological contract theory and stakeholder theory, Toyota executives expressed agreement that these perspectives were appropriate for the study. An executive steering committee created to oversee the research provided approval and engagement with these frameworks. While we were investigating events in the company and industry, collecting data through interviews, meetings and documentary evidence, and drawing out insights about plant closure stages and events, the theories provided guidance and focus on investigative paths. At the same time, it remained important for us and the project steering committee to recognize that theories in use may not be complete, or fully applicable to the phenomena being observed.

3 | CONTEXT: THE SHUTDOWN OF MANUFACTURING IN THE AUSTRALIAN AUTO INDUSTRY, 2013–2017

3.1 | Industry context: The Australian auto industry

Vehicles had been assembled in Australia for some 70 years before the full closure of the industry occurred in 2017. GM, Ford, Chrysler, Mitsubishi, Toyota, Nissan, and others had operated assembly plants there. From a high of 16 plants in 1946–1963, the number of plants dropped to 12 by the early 1970s, 8 by the 1980s, and 4 by 1998 (Clibborn et al., 2016). In its last decade, only three plants remained. Both GM and Ford plants assembled rear wheel drive family sedans that were rapidly losing their market appeal. Toyota assembled up to 150,000 Camry vehicles per year; two-thirds were exported with one-third serving the domestic market. As in many other countries, the government offered subsidies for these companies, but in 2013/2014, the Australian government wavered in its support. Agreements for future government support for the automotive industry had been stalled, and the government had signaled to the industry that the subsidies were too high and were likely to be lessened going forward. A boom in the mining sector rapidly raised the value of the local currency. At the same time, consumers were quickly moving away from traditional rear-wheel drive petrol engine sedans.

Conley (2022) recently reviewed the “paradigmatic policy shift” (p. 415) in the Australian government's

overall approach to industry policy, that led to reduced import tariffs, and reduction in other direct and indirect subsidies, as the Australian approach went from protectionist of its high-cost industries, to highly open and unprotected, hence leaving industries and companies needing to survive or decline against global market forces:

From the mid-1980s to the mid-2010s, policy-makers oversaw the decline and fall of the Australian automotive industry. The process of decline occurred within a long-term cycle of new assistance, declining protection, new investment, inadequate restructuring, weak profitability, declining market share, and new assistance. Each cycle, however, was unable to stave off renewed crisis and eventual demise. (Conley, 2022, p. 215).

Consequently, first Ford then GM Holden announced closures of local production. Ford and GM's traditional V6 engines in the Australian models were also not efficient enough to meet ever-tightening standards. Rising costs due to currency inflation and lowered demand for components due to the GM and Ford closures forced Toyota managers to also consider closure. Total national vehicle assembly volume had already shrunk to some 200,000 vehicles per year, which was under-scale and non-viable for many suppliers. With GM and Ford closures, Toyota Manufacturing was faced with being a “last plant standing” plant of some 100,000 vehicles per year, in a local, high-cost country market that only demanded one-third of that volume of the locally produced Camry vehicles. Toyota could readily supply both the Australia plant's international markets and domestic Australian demand from one of its other Camry facilities, so in February 2014 it announced that it would close its Melbourne plant late in the year 2017.

3.2 | Toyota in Australia and the TMCA closure decision

The consumer perception of Toyota's high quality in Australia was consistent with international data on quality as measured by vehicle recalls.⁴ However, over a 31 year period, Toyota ranked above average in terms of recall rates, measured as vehicles recalls per 1000 vehicles produced.⁵ Toyota executives in Australia told us that they were still sensitive in 2015–2017 to the global brand damage suffered from the major recalls and multi-billion dollar costs that occurred in 2009–2011.⁶ Although Australian built cars were not directly involved,

reputational effects nonetheless extended to Camry vehicles globally; this at least partially explained management's sense of attention to quality issues during our period of engagement, and their prevalent use of mantras such as "pursuing perfection" and "last car equals best global car."

Some writers, especially in the popular press, point to a history of acrimonious relations between automakers and the trade unions as a contributing factor to Toyota's and other makers' decisions to close Australian factories (Bolt, 2014). James (2019) initially states that this was likely the determining factor for Toyota's decision. However, as noted above, others point to changes in the larger economic climate as the primary drivers of closure (Clibborn et al., 2016); they note that automakers who had cooperative relationships with the unions also closed their plants, even before the TMCA closure. Moreover, adversarial negotiations between automakers and unions had been occurring for most of the 70-year history of the Australian auto industry, and little had changed in the years leading up to the closures. Relations had improved in recent years, especially at Toyota. Its history of union relations had included strikes in past years but had improved in the period prior to the closure announcement and afterward. Thus, arduous labor issues likely did not drive the closures in the 2014–2017 time frame. Even James (2019, p. 30) suggests that the "sole reason" why TMCA closed the plant was the removal of subsidies by the Australian government. Australian economics writers offer the same view (Forsyth, 2014; Sloan, 2014). Importantly, even union leaders acknowledged that the TMCA closure was not the result of arduous interactions, as evidenced by the following quote:

The national secretary of the Australian Manufacturing Workers Union's vehicle division, Dave Smith, said he was not confident Toyota would stay in Australia, and that has nothing to do with the enterprise bargaining agreement. The fact is the government will no longer provide funding. Their treatment of General Motors has effectively destroyed the components sector. I would be really pleased for our members if Toyota does stay.⁷

The closure was expected to produce serious effects on the local economy. Approximately 2800 employees would lose their jobs, with ripple effects throughout the entire local supply network, because TMCA was the last assembler operating in Australia. TMCA was one of the first plants Toyota had opened outside of Japan, and Toyota executives told us that it was the place where

Toyota first learned to deal with a Western, unionized workforce. Numerous members of the Toyota global senior leadership group had spent time in the Australian operation. The plant was regarded fondly,⁸ hence it was with some reluctance and regret, according to the company's executives, that the closure decision was taken. Investments in new model and new engine technology had recently been made in Australia, yet these investments and plans to continue assembly were overshadowed by the larger forces associated with Australia's government position on support and the withdrawal of the only other two local assemblers, Ford and GM. Relations between the Australian government and the American assemblers in particular were poor, such that Australia's national business newspaper published a headline article about Federal Government treasurer Joe Hockey titled "Hockey Dares GM to Leave" (December 11, 2013). Mr. Hockey was quoted as saying in Federal parliament, with reference to GM, "Either you're here or you're not," and very soon after, GM announced its departure from Australian manufacturing. Two months later, when Toyota's global president, Akio Toyoda, came to Australia to personally speak to the workforce and announce the closure, he told the local executives to do so "in the most respectful way."

3.3 | Toyota's "respect for people"

Toyota has opened and operated manufacturing operations in some 25 countries, taking its philosophy and approach to workforces in widely different cultures. Writers have documented elements of the Toyota Way in English beginning in the early 2000s, though it was implemented well before that time (Liker & Meier, 2007). It is the guiding philosophy of the global parent company. The Toyota Way consists of two core values, Respect for People and Continuous Improvement, described as:

1. "We respect others and make every effort to understand each other, take responsibility and make every effort to build mutual trust", and
2. "We stimulate personal and professional growth, share the opportunities of development and maximize individual and team performance."⁹

Researchers have also identified respect for people as a core value undergirding the operating practices of Toyota. Some highlight the incorporation of worker suggestions and communication of management appreciation toward workers (Monden, 1983; Womack et al., 1990). Others suggest that respect for people

prioritizes expanding workforce knowledge and skills to support problem-solving capabilities. de Treville and Antonakis (2006) identify expressions of Toyota's respect for workers that include competitive wages, supportive training and equipment, grouping workers into teams, grants of authority and responsibility, and continually communicating the importance of workers' contributions. They argue that Toyota's respect for people is the "glue that holds the other lean production factory physics dimensions together" (p. 104) and that such a policy is necessitated by reductions in capacity and inventory buffers. Without buffers, "production problems would stop the line unless competent and committed workers were able to take action to solve such problems immediately" (p. 102).

The literature contains differing views on the quality of work life engendered by the respect for people approach and the larger Toyota Way paradigm. Some praise the system for emphasizing fairness, humanism, and justice while providing financial and psychosocial rewards to workers, as well as opportunities for skill development (Adler, 1995; Adler & Cole, 1993; Hummels & Leede, 2000; Liker & Meier, 2007). Others suggest that employee empowerment espoused in Toyota's respect for people principle is illusory, and that real choices offered to employees are quite limited (Graham, 1995; Jones et al., 2013; Parker & Slaughter, 1988; Phillips et al., 2004). James (2019) suggests that differences in the operations of Japanese vs. Australian union institutions made application of the Toyota Way difficult at TMCA. These and other foregoing research studies illuminate respect for people attributes and outcomes as they relate to a stable production environment. To our knowledge, no prior study examines the implications of the respect for people value paradigm in a plant closure circumstance.

4 | RESEARCH METHOD: ENGAGED RESEARCH

Given prior research on plant closures and the underpinnings of the theories and perspectives described above, we aimed our research objectives toward theory elaboration. Ketokivi and Choi (2014, p. 236) state that "... elaboration can involve the combination of several theories, or introduction of concepts from another theory" and "... theory-elaborating case research entails remaining open to unanticipated findings and the possibility that the general theory requires considerable reformulation." Accordingly, we started with potentially relevant theoretical frames and applied a combination of engaged research methods to a single case instance of the TMCA plant

closure, with particular focus on the roles and reactions of executives, managers, and employees.

We conducted engaged research (Touboulic et al., 2020) by incorporating into the research design the two conditions suggested by Touboulic and Walker (2016): (1) careful integration of theory and practice and (2) the explicit and participative role of the researchers. The first researcher was the primary data collector, having been formally selected and commissioned by the company, including given unfettered access to employees, plants, and documents. The second researcher was less directly involved with the company, and thus served in the role of impartial critic in the evaluation and interpretation of qualitative data. The initial engagement included a request by Toyota executives for the primary researcher to propose conceptual frameworks or theories that could be useful in the work, and this process involved a series of meetings, presentations, iterations of literature reviewing and discussions in the company, until convergence between the literature based theoretical frameworks and Toyota executives' practical preferences and judgments was achieved.

Our initial literature review of knowledge about plant closure effectiveness and its socioeconomic impacts encouraged an engaged research approach. In addition, this approach created goal alignment between the researchers' and the company's objectives. The broad scope of potential factors for study we originally identified included leadership, policy choices, closure initiatives, and the balancing and tradeoffs of multi-stakeholder outcomes, focusing particularly on the local employees who were being dislocated. As researchers, we were given the opportunity to closely examine internal factors within Toyota, as well as to consider the larger turbulent environment in which the loss of skills and capacity would produce broader and longer-term impacts as spillover effects across the Australian economy.

Data collection efforts included direct interviews described below, observations gained through participation in team meetings and larger company events, and collation of quantitative data provided by production reports and by internal and third party administered surveys. Articles in the local press and company internal documents provided additional background data, as well as perspectives of various community and government stakeholders. TMCA executives regularly asked the primary researcher to reflect and provide feedback on strengths and weaknesses of the process as he independently observed them and gathered both qualitative and quantitative data. For example, he was asked to assume the role of "fresh eyes" at the 2016 Annual Production Planning offsite conference, both making a formal presentation there and reflecting on the day's proceedings

and Toyota's approach and progress to summarize and close the day. During 2016 and 2017, the primary researcher consulted extensively with a range of general managers, plant/operations managers, and human resource managers. Close working relationships were formed, and in late 2016, the primary researcher was asked to provide career development advice and some coaching and mentoring. He then became a contracted part of the Reskilling initiative, formally advising one senior executive about post-Toyota career, and informally advising others.

The researcher submitted written reports on a quarterly basis to the Steering Committee, maintaining frequent contact and communication with committee members. These reports were included in the quarterly reports given by the Toyota Australia Chairman and President to the company's global President in Japan, as it was the global President who originated the idea of commissioning this independent academic research project. Key people inside the company facilitated the deep engagement of the researcher with other company personnel. For example, one senior manager formally introduced the researcher to all seven plant managers, who in turn helped arrange interviews of shop floor Team Members and Team Leaders. Thus, the research approach closely fit the prescription of Touboullic et al. (2020, p. 37), who state: "In particular, engaged research enables viewing researchers as not only contributing to conceptual developments but also to practical wisdom." Touboullic et al. (2020) refer to different types of knowledge production, depending on their degree of engagement and degree of critical orientation. The primary researcher was highly engaged and low in degree of critical orientation. Touboullic et al. refer to this type of engaged research as "Interventionist approaches to engaged research."

The study engagement began well after the 2014 closure announcement. Hence, we collected no direct pre-announcement data and had no prior knowledge of employees' regard for the psychological contract in place at TCMA. We developed inferences regarding the old and new or repaired psychological contracts from more than 40 interviews (described below) with plant managers and executives across TMCA in all operational and human resource management roles, including the Australian President of Toyota, and many shop floor team members. The primary researcher also attended many meetings, including production planning and closure project meetings, over the course of 3 years. In March through May 2016, he conducted an additional 75 detailed interviews with Team Members including frontline workers and supervisors, most of whom were leaving the company. Each interview averaged 1 h in length. Interviewees

included a mix of employees selected randomly and volunteers. The interview questions were designed to tap psychological contract concepts including expectations of obligation, fairness, and reciprocity (Rousseau, 1995). The primary researcher pre-tested the questions with managers and pilot groups of employees in 2015 and refined them based on the received feedback. The pre-tested questions were similar in meaning to those presented as our primary results in Table 1, yet the pretesting served to reduce the use of contained management jargon, in their expression. For example, rather than asking about "employee satisfaction" as such, this was rephrased to be expressed as "What has been the best thing about working at Toyota?" and similarly for the worst thing. The interviews were followed up with informal monthly visits, discussions, and communications, continuing through to the plant closure date in October 2017.

We were not given permission to record the interviews; the steering committee felt that recording might inhibit some employees' responses, especially as they had been selected to be interviewed by a professor about their views regarding the company, closure, and their outcomes associated with that closure. Detailed written notes were taken during and after the interviews. The interviews were confidential; anonymity was promised to employees, with no other people present during these "closed door" discussions. From the detailed notes, summaries were created of issues and the prominence with which they were raised in the interviews. We measured prominence by frequency of mentions by participants and weighted by their expressed views, for example when a participant said, "this is really important to me." Interviewees were encouraged to take the semi-structured interview sessions as opportunities to speak about workplace issues, family-impact issues, community issues, longer-term career issues, and other matters. During the shop floor personnel interviews, there was no need to modify the broad questions that were initially posed and agreed upon with the steering committee; the questions served as starting points for discussion, offering ample scope for responses to vary according to the interests of the respondents, which ranged from business focus to personally focused issues. Table 1 provides the interview starter questions.

During the period 2015 through 2017, the primary researcher participated in frequent discussions with personnel in the human resources department, who provided detailed information on independently gathered employee engagement and enablement data. Toyota gathered such data frequently during the period of transition toward closure, with the goal of ensuring that executives and managers had as true as possible a view of

TABLE 1 Qualitative interview results

Question/theme	Summary of responses	Typical quotes from Toyota employees
Q1. How long have you been working at Toyota and what drove you to join and stay here?	Most employees had been in the company for 25–35 years, although there were some of lesser duration. Many had joined as temporary employees then been offered permanent jobs, and many had been referred to the company by relatives or friends.	<p>“I joined in a temporary role, but was offered a permanent position and have stayed a long time because it is better than any other company I have heard of”</p> <p>“I believe in the product and our quality”</p> <p>“The company treats its workers well”</p> <p>“Leadership here is demanding, but sincere and fair”</p> <p>“We get to develop ourselves”</p>
Q2. What has been the best thing about working at Toyota?	<p>Many respondents immediately answered “opportunity” to develop, do different jobs, gain international experience, gain new skills and capabilities, and participate in interesting kaizen projects.</p> <p>Second most frequent answer was “pay and conditions,” which are higher than most comparable organizations in the region.</p> <p>Third, was culture and leadership, described as strong and consistent. Many described it as a “family” even though TMCA employed thousands of employees.</p>	<p>“After you get to understand the Toyota way of working, it captures you, develops you and gives you a strong sense of satisfaction and comfort”</p> <p>“I have done over 90 training courses in my 30 years, as have many of my colleagues, and I can't imagine that happening elsewhere.”</p> <p>“Respect for people is sincere and leadership is heartfelt”</p> <p>“Our leaders know that people are the most valuable resource we have”</p> <p>“I take great pride in our brand and our product”</p> <p>“I like what Toyota does in the local community too”</p>
Q3. What has been the worst thing about working at Toyota?	Employees felt let down by the manufacturing closure, given their efforts in continuous improvement, capability development and training, and the “respect for people” principle. This was known to be the first ever planned plant closure by this company. Most employees felt that they had achieved an adequate understanding of the reasons for this but were still sad about the company's and their personal dislocation and uncertain future.	<p>“I was in shock, and many of us cried when we heard about the closure”</p> <p>“I thought I would work here forever: not going to happen”</p> <p>“I haven't written a cv or applied for a job for over 20 years: Toyota has always planned and given me my next job role”</p> <p>“When I talk to friends and relatives, I hear about all sorts of problems and poor management in other companies, and now we are going to be thrust into that outside world”</p> <p>“Toyota is like my family: and now that is being taken away!”</p> <p>“It's been a shock, still is, not unlike a grief process we have gone through and still are”</p>
Q4. What has been your impression of the upskilling initiative	Gaining a qualification at a higher level of skill/seniority during the closure process was seen by virtually all interviewees as a positive show of faith and respect in the workforce. Most interviewees generally engaged in this initiative, taking courses ranging from improving language and literacy, competitive manufacturing processes (like Toyota Production System/lean management), and a range of certificated and diploma courses. Most expressed that they valued the	<p>“It's gratifying to be given opportunity to develop to a higher level than my current work”</p> <p>“This will hopefully make me more attractive in the job market”</p> <p>“The learning was practical, applicable here and wherever I go next”</p> <p>“I am going to open my own business after the closure, and I am now much better placed to do that”</p> <p>“It was quite intense to do this as well as my job, and family responsibilities: guess it will be worth it”</p>

(Continues)

TABLE 1 (Continued)

Question/theme	Summary of responses	Typical quotes from Toyota employees
	<p>opportunity and took pride in the lasting achievement.</p>	<p>“I haven’t heard of other companies doing all this for their employees who are being made redundant: its widely appreciated” “A few people I work with haven’t engaged with it because they are intimidated or lack confidence in their language skills”</p>
<p>Q5. What has been your impression of the Reskilling/ DRIVE initiative?</p>	<p>Most interviewees stated that it was a positive initiative that exceeded their expectations of what any company might do in a closure scenario. Some people were early adopters of the opportunity, reskilling for a completely different type of career, for example, nursing or construction industry work. They were the most positive about it. Some people had attended small business training courses, and they felt better equipped for their next career step. A smaller percentage said that they took advantage of the opportunity, even though they might be retiring, to support a hobby or volunteering work.</p> <p>When asked why the participation was not 100% of the workforce, interviewees stated that some people lacked confidence or language skills to be “examined” by a case worker, some were still in denial of losing their Toyota job, while others planned to take retire on their redundancy payment. Those who had engaged were strongly positive about the value of DRIVE.</p>	<p>“A wonderful opportunity, given the circumstances, for me to relaunch myself and my career” “I can’t see this being done anywhere else: its generous of the company” “Mr Toyoda said it would be a respectful transition: and this is a full-on part of it” “We were expected to show some initiative, and that has meant being self-motivated to go to the DRIVE center, rather than the more usual hand holding approach at Toyota for training.” “There had to be the right amount of push and pull to get this right, and some employees have not stepped up yet” “They suggested industries where growth and jobs are likely, then we had to figure out what we wanted and could achieve” “They are paying fees, but we are having to do it mostly in our own time, and I guess that is fair” “On top of the generous payment that will occur, this is a good initiative” “Given that manufacturing is closing, we are getting a very fair deal, of retraining and large payouts. I am very positive and confident about my future”</p>
<p>Q6. What other views do you want to express about the Toyota Way, and how it is being implemented here in Altona manufacturing?</p>	<p>Most participants stated that they believed the company had made sincere attempts, with high energy, to enact the “respect for people” and continuous improvement values throughout the closure process.</p> <p>Three out of the 75 interviewees were skeptical, suggesting that the Toyota Way was merely a means to an end of corporate success. They pointed to difficulties that the company had with the union 5 years earlier. Nevertheless, they admitted that present relations with the workforce were strong and psychologically aligned, even in “stressful” times.</p>	<p>“When president Toyoda came here in early 2014 to personally announce the closure of Altona manufacturing, he had tears in his eyes, and so did many of us” “I can’t see how the company could have done much more for us, given that it seemingly had to happen” “Executives from President Dave Buttner, Chris Harrod (director) and others are open to discussion and explanation in many ways, including when they walk the shop floor, and at the open lunches they have organized. It’s been transparent” “There has been some uncertainty about who stays and who goes and why, but I accept that it is management decisions.” “Bottom line: I am losing my job, but the company has been doing more than I expected to prepare us for it”</p>

TABLE 1 (Continued)

Question/theme	Summary of responses	Typical quotes from Toyota employees
Q7. How does the Toyota value system fit with your own beliefs and values, and how is this impacted by the transition to manufacturing closure?	<p>The pervasiveness of the Toyota Way philosophy came through intensively and consistently throughout the interviews, at all levels of the workforce. Some employees described it as verging on being “cult like”—in a good way, because of the behaviors of respect and quality improvement that everyone practiced.</p> <p>Many people alluded to the downsizing of 2012, when over 300 employees were made redundant: they were said to have been chosen for redundancy based on lowest level of alignment and behavior in accordance with the Toyota Way values.</p> <p>There was uncertainty about who was leaving and who was staying, coupled with a strong view that those leaving were being well looked after, both financially and in preparation for their personal transition. A few interviewees asked for more openness and transparency in selection processes in the new structure, claiming that without this transparency, favoritism might occur.</p> <p>Most people expressed trust in the Respect principle and suggested that Toyota had created a large bank of goodwill among employees and an expectation of fairness. Union leaders and representatives commented on the alignment (company, employees, and unions) that had occurred in the past 5 years, and that it was helpful in negotiating the transition arrangements. They expressed little acrimony, along with the feeling that they had won because the redundancy payouts were generous.</p>	<p>“People either stay at Toyota in Australia for less than 12–18 months, or they stay 30 years or more.”</p> <p>“Once we ‘get’ Toyota, it gets us in the sense that we become acculturated, and it gets into our core system of beliefs”</p> <p>“The value system is very strong, mostly in a good way, and we all think similarly about how to do standardized work, how and why we solve problems, overcome challenges and create quality outcomes.”</p> <p>“I have been using what I have learned and practice at work here at Toyota, at home, and my whole family does 5S and waste reduction for example. Same thing with respect for people.”</p> <p>“After just a couple of years here, the Toyota way gets into our DNA and we automatically work it. Also, it is regularly refreshed through meetings and training, so it never fades.”</p>
Q8. How does Toyota relate to its other stakeholders, apart from employees?	<p>Answers from shop floor team members were somewhat limited, as they had less knowledge about extended stakeholders. Managers, engineers, and procurement staff offered strong opinions in communicating consistent expectations of fairness, respect, and high performance to customers, environmental stakeholders, and especially to suppliers.</p>	<p>“One of our mantras here is ‘Employee First = Customer first’, and we live it. We are meticulous with quality and service because we compete for our customer’s attention with Hyundai, Mazda, and others, who keep getting better too.”</p> <p>“We have brought customers into the manufacturing site to see how we do it, and that is good for us too, to see them”</p> <p>“When I see what we make in dealerships and on the road, I feel pride”</p> <p>“We care about the green environment as best can: we spend lots of money on reducing emissions, and goodness, we are now producing Hybrid vehicles!”</p> <p>“We have strong practices in place to not pollute, whether it is oil, paint, resin or CO₂: we measure it and use our usual</p>

(Continues)

TABLE 1 (Continued)

Question/theme	Summary of responses	Typical quotes from Toyota employees
		<p>problem solving and continuous improvement methods to improve”</p> <p>“When it comes to our suppliers, we like to develop them, and it is for the long term.”</p> <p>“We partner with suppliers, which means we expect a lot of them, and we make sure we all do well out of it, and we support them”</p> <p>“Suppliers can become an extended part of our Toyota family. We help them, and that helps us.”</p>

employee's opinions. We inspected these data and reports, as well as training materials. The primary researcher frequently and freely toured areas of the plant and facilities where training initiatives were proceeding, and interacted in numerous informal discussions with employees, including for example over meals in the canteen. Many follow up interviews and meetings were held with managers, and Toyota employees showed an open approach to participating in the research.

A final mode of engagement with the company was attendance and participation at meetings of the Action Learning Teams (ALT). Toyota had set up a system of ALTs in each plant, that long preexisted the closure process, and an overall site-wide ALT, as a way of raising and addressing issues aside from the usual hierarchical modes of issue resolution. The ALT system, led by a senior HR manager, was considered a trusted way of alerting managers and executives of problems which in Toyota's terms are called *abnormalities*. We observed in ALT meetings the issues that bubbled up from the shop floor. For example, one ALT meeting discussion led to the creation of multilingual capability and training initiatives for employees who did not speak English well, as these employees were reticent to seek advice on creating c.v./resume documents, and to participate in external job interviews. Overall, Toyota leaders were consultative and open-minded in supporting the research project; they wanted to learn from the transition experience. In late 2017, the primary researcher presented and discussed a written summary of findings with Toyota leadership.

Throughout the interviews and informal interactions, we asked TMCA employees questions regarding the initiatives that were occurring and their views of the company's sincerity and integrity throughout the process. These data were combined with observations of ALT and within-plant problem-solving team interactions, improvement initiatives, employee engagement data, plant performance data, and the specific actions undertaken by

the company to prepare employees for their post-Toyota career. Plant performance and employee sentiment data were provided by HR managers and the aforementioned surveys. Additional insights were provided via conversations and personal bonds the primary researcher formed with some key executives in the company. Beyond these initial primary data, we collected secondary data describing the larger economic conditions, the history of the Australian automotive industry, and aspects of contemporaneous closures of GM and Ford plants in Australia. We also conducted retrospective interviews in 2021 with three executives: a top HR executive at GM Australia who directly managed the closure from 2014 to 2017, the HR executive at TMCA responsible for developing and implementing much of the closure process, and the TMCA Divisional Manager of Manufacturing. These interviews provided additional perspectives and comparative data on the closure processes at the GM and Toyota plants.

From this large, diverse set of data sources reflecting multiple stakeholders, we were able to interpret communications and form views about the management of the closure process. We followed Gioia et al. (2013) in processing the qualitative data from the workforce interviews into themes, with the goal of creating data structure tables suggestive of a proposed parsimonious model. During the data collection, the researchers perceived that “theoretical saturation” (Gioia et al., 2013, p. 20) regarding understanding of the key themes had been reached before the end of 2016, having completed the bulk of interviews during that year. However, we were invited to continue observations and discussions including performance and progress reviews well into 2017, as closure approached. This continued period of participation added confidence that the emergent themes of the study were robust. Further, the variety of data sources provided a convergent frame of events and theoretical underpinnings for elaboration, as per the specification from

TABLE 2 Production data in years prior to closure

	2014	2015	2016	2017
Ford—plant opened 1959. Produced rear wheel drive family sedans, almost exclusively for domestic market. Closure announced May 2013				
Employees	1160	750	730	-
Production volume	18,962	17,494	13,532	-
Number of shifts	1	1	1	-
Number of models	2	2	2	-
Closure—October 2016				
GM—opened plant in 1962. Produced rear wheel drive family sedans, almost exclusively for domestic market. Closure announced December 2013				
Employees	1680	1420	1220	950
Production volume	68,616	56,786	38,677	28,681
Number of shifts	1	1	1	1
Number of models	2	2	2	1
Closure—October 2017				
TMCA—opened plant in 1994. Produced front wheel drive sedans including hybrid electrics, two-thirds for export. Closure announced February 2014				
Employees	2750	2550	2500	2500
Production volume	102,590	88,470	95,204	87,486
Number of shifts	2	2	2	2
Number of models	1	1	1	1
Closure—October 2017				

Ketokivi and Choi (2014). In practical terms, for example, once some 50 of the 75 shop floor employee interviews were conducted, a stable understanding of key issues emerged; the last 25 interviews were essentially predictable repeats on emergent themes. In sum, our continuous engaged involvement with the company throughout the closure process provided rich insights into the process and the perspectives of the involved stakeholders.

5 | RESULTS: EVIDENCE AND ANALYSIS

5.1 | Comparisons of TMCA, ford, and GM closures

The TMCA closure process and experience manifested both similarities and important differences compared with the closures of the Ford and GM Holden plants in Australia. First, the closure volume trajectory and related employee departure schedules varied. Unlike the Ford and GM plant closures which followed a sliding decline in volume over 10 years,¹⁰ Toyota chose to continue production at a rate of ~90,000 vehicles per year, working

two full shifts of manufacture and assembly, until the last day of operations (October 3, 2017). This level of Camry production accounted for more than half of the country's total vehicle production in 2015.¹¹ Whereas Ford and GM used multiple rounds of lay-offs to ramp-down employment over a 3-year period, Toyota maintained its full workforce until the last day. Table 2 provides a summary of employment levels, production volumes, and other data during the closure periods for Ford, GM, and TMCA plants.

A comparison of resources dedicated to employee support during closure processes indicates differences in levels and types of commitments across the three companies. A GM senior executive we interviewed identified employee support resources of A\$3000 to A\$4000 per employee for retraining, accompanied by support, advice, and mentoring. A Toyota HR executive indicated that TMCA spent about A\$20,000 per employee. This difference notwithstanding, the GM executive explained that GM Australia (GMA) diverted from the general approach used by its parent company. Rather than follow the traditional approach of telling employees of the closure “as late as possible,” GMA instituted initiatives to help its 3000 employees who were to be laid off, including

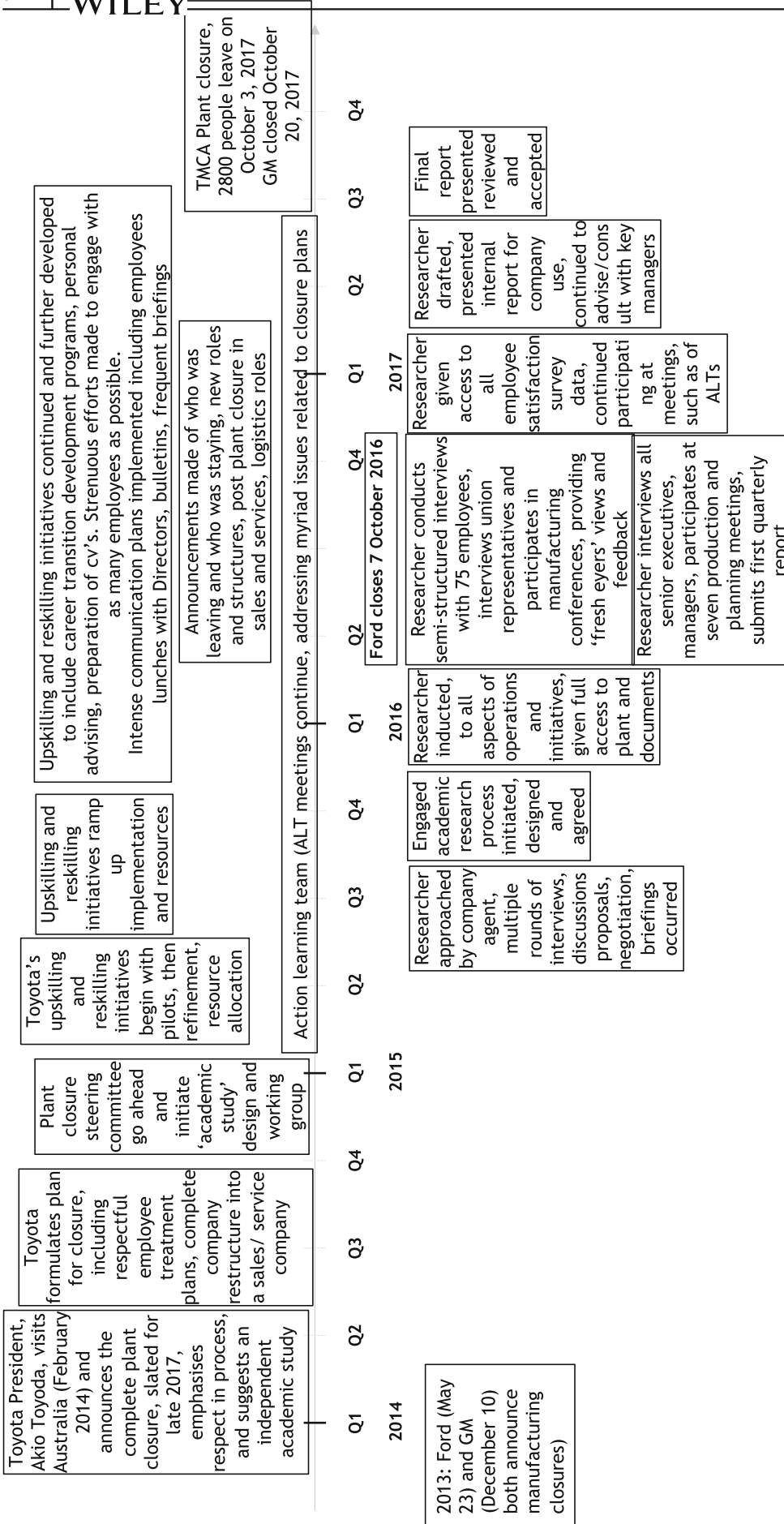


FIGURE 1 The TMCA plant closure

bringing prospective employers to GMA to see employees' skills, extending counseling services to families, and providing financial and psychological counseling. The GM executive indicated that 86% of workers found new work or retired within 12 months. This compares to an 80% placement rate within 6 months at TMCA. Like TCMA, the GMA plant improved performance during its closure countdown. It was awarded "Most Improved" among GM international plants for the years 2013–2017. The plant reduced costs, and vehicle assembly quality improved from 85% in 2013 to over 90% by 2017, making it number 1 in GM. Thus, GM's approach can be observed as a similar yet limited version of Toyota's, with a total budget of A\$15 m spread across 3000 employees, whereas Toyota invested approximately three times that amount on 2300 employees. GMA's approach was respectful and effective compared with plant closures reported in North America (Helper & Henderson, 2014), yet lesser in intensity than that of TMCA.

Our interview with a Ford manager indicated that Ford mostly outsourced and limited employee counseling services, compared with both GMA and TMCA's more extensive initiatives. Moreover, Ford mostly relied on government support and union leadership to manage employee transitions, where GMA and TMCA managed transitions more directly with internal staff. Retraining efforts were mostly competence based and less holistic than the efforts of TMCA or GMA.

5.2 | The TMCA closure process

The timeline presented in Figure 1 identifies TMCA's major actions that defined the closure process. Also shown are the timing of researcher engagements with staff at all levels of the company. In 2014, Toyota offered what managers considered to be a generous severance package for employees who stayed until the closure. During 2015 and 2016, TMCA managers formulated a transformation plan. A central plank of the closure strategy communicated by Toyota managers was a determination to not let safety, productivity or quality slip as the closure approached. Leaders forwarded mantras including "Employee First = Customer First" and "Last Car Equals Best Global Car" to signal commitments to quality and to emphasize the importance of worker efforts. At the company's internal manufacturing conferences leaders communicated productivity, quality, unit cost, safety, employee engagement, and environmental goals with an aim to continuously improve these aspects through problem-solving processes, as if an imminent closure were not on the horizon.

5.3 | Upskilling and reskilling programs

Managers worked in consultation with employees to identify the 1300 who would stay beyond the plant closure in the service organization, and the 2800 who would leave. The stated plan for leavers was to provide the best possible chance of transitioning them to new jobs and careers. Accordingly, TMCA management launched two major initiatives: *Upskilling* and *Reskilling*. In the Upskilling initiative, all employees were invited to undertake certified learning courses, customized by Toyota to provide them with skills and qualifications needed to get jobs that were one level up from their Toyota positions. Many employees, from team members to managers, took courses in business practices, team leadership, supervision, project management, logistics, and a host of other topics. Formal qualifications were created at various levels: Cert II, Cert III, Cert IV, and Diploma. Qualified engineers also took an education program on TPS approaches and methods provided by qualified Toyota TPS trainers. The qualification involved core modules and topics in the fields of Safety, Cost management, Quality, Productivity, Environment, and other topics relevant to daily work. Participants received a qualification with documented competency achievements; employees communicated that the program instilled a sense of pride and achievement within the workforce. Although initially unanticipated, some employees expressed a need for courses in language, literacy, and numeracy. Toyota partnered with a local education institute, Registered Training Organization, Kangan Institute (College) to jointly design, accredit and deliver the Upskilling programs on site and on company time. The partnership between Toyota and the Kangan Institute took 1 year to design and develop, involving government as the regulator, with Kangan Institute as the formal provider and registrar of the awards, responsible for the preparation of trainers, materials and program resources, and compliance.

Managers indicated that, while they framed the Upskilling resource to give leavers a lift in employability, it was also offered to stayers to improve their capabilities. Thus, interviewees stated that the program was seen as beneficial for both team members and for the company. Union representatives we spoke with also indicated broad support. Planned enrolment and completion of the program was 40% of leaving employees in year 1, 40% in year 2 and 20% in year 3. This allowed for leveling of the resources and program works. Leaders in the ALT network, including union representatives, coordinated employee selection processes, and program administration.

The second major initiative included in TMCA's closure plan was a Reskilling program, also known as

“DRIVE” (dedicated, ready, individual, vocational, and energized). Available to all employees who were leaving the company, the DRIVE reskilling initiative created a resource center that started by educating employees about the external labor market and its opportunities, and then worked with individual employees to identify their employment desires, to match them to opportunities, and to develop and implement a training or education program to equip them for those roles. The program was tailored to individual needs. Toyota paid for training and education courses, including fees and mandatory materials, for employees who mostly pursued the programs on their own time. For example, 26 employees, mostly manufacturing workers, wanted to reskill as nurses. Toyota arranged and funded their study for relevant nursing qualifications. Other popular programs included truck driving, logistics, construction work and trades, pilot training, and master's degrees.

By the beginning of 2017, over 75% of employees had accessed the reskilling opportunity, each receiving and developing an individual plan and preparation for their next job/career. In 2017, Toyota redoubled its efforts to engage employees who had not yet participated in this initiative, finally having just over 2300 participants in DRIVE. Some employees retired and hence did not require reskilling; others delayed their post-Toyota action plans or were reticent because of limited language and literacy skills.

5.4 | Managers' perspectives regarding the closure process

Interactions with more than 40 TMCA managers and Toyota executives on many occasions provided opportunities to dig deeper into the company's motivations to undertake the resource intensive support initiatives described above. In our interviews with the designers of these initiatives, they spoke of the processes of budgetary approval, ultimately a decision taken in Japan, and explained that executives provided evaluations and approvals as a matter of respect, against which money was allocated. Managers also spoke of money being spent as a matter of discretion on supporting loyal local supply companies who had invested in machinery and human capabilities and were about to lose their major customer (Toyota). Interviewees described these actions, along with other initiatives, as parts of a multi-prong approach reflecting stakeholder orientation with goals of engagement and satisfaction. Additional steps included preserving the manufacturing site as a community resource, hosting community days for family and friends, creating and investing in a local museum, engaging with

governments, sponsoring local social and sporting activities, and resourcing the environmental outcomes of the closure.

Over the three-year research period, our engagement produced a build-up of trust with key executives, enabling a fuller understanding of Toyota's stakeholder approach. In later discussions, managers consistently evidenced a pervasive stakeholder orientation across the global organization. Evidence is provided in the earliest statements of the company's principles, traced back to the company's founder Sakichi Toyoda in 1931,¹² who emphasized the dual goals of the company and the greater good. During interviews, Toyota managers told us that the costs of severance payouts and the Upskilling and Reskilling programs were much higher than the costs of usual practices associated with a plant closure. However, they explicitly stated that they did not expect a direct return on this large expenditure. Instead, they consistently referred to the respect for people core principle that prioritizes the satisfaction of stakeholders broadly, rather than focusing primarily on shareholder wealth. In our retrospective interview with the Toyota Divisional Manager of Manufacturing, he stated,

The key evidence of our Respect was the communication, which we persisted with, intensively from February 2014 until the closure day of October 2017. For example, our Operations Director listened and spoke to all our employees every month, multiple times per month about our plans, consistently for 3½ years. It wasn't left to our Human Resources department or the union, as was traditional in our industry. We in the manufacturing division chose to step up to the difficult conversations, as often as needed, with full honesty. As to the role of unions, when we communicated so effectively with our employees, unions found little need or opportunity to get involved after the initial discussions: their role was reduced.

At the same time, TMCA managers emphasized their expectations for employee efforts and outcomes during the transition toward shutdown; they expected these continued improvements to produce productivity and customer satisfaction gains that would at least partially offset the large investments the company made in both leavers and stayers. Through executive interviews, it became clear that because of the primacy of the stakeholder respect perspective in Toyota, managers believed that steady-state employee enablement and a long-

servicing loyal workforce justified such thorough funding and implementation of the closure initiatives. Toyota executives said that, if the pre-breach psychological contract had been weaker, then Toyota would likely have conducted much less extensive post-breach actions. Managers reported to us that the company-wide Upskilling and Reskilling initiatives demonstrated the respect for people value re-applied innovatively from the usual stable production environment to the new plant closure circumstances.

Managers' perceptions of the overall closure process are perhaps best summarized by a published quote from the Divisional Manager of Manufacturing, Doug Rickarby. In a review article describing the closure experience,¹³ he spoke publicly about the initial "shock and disappointment" experienced by TMCA employees. Given these initial employee responses, managers were surprised by the rebound in employee performance. Rickarby commented further: "In fact, our figures improved! Amazingly, we reached 84% participation in quality circles and 100% project completion. Later, even the union confirmed the soundness of DRIVE."

5.5 | Employees' perceptions and responses to closure

In March through May 2016, just over halfway through the 4-year transition toward manufacturing closure, the researchers interviewed 75 Toyota employees, mostly Team Members and Team Leaders from the plants, to assess their degree of engagement and their views on the company's employee-employer relationship. Table 1 summarizes the questions and answers from these interviews, with typical quotes from Toyota employees.

In responses to questions such as question 3 in Table 1, the interviewees consistently spoke of their shock and even grief at hearing the announcement. Many were surprised even considering the prevailing industry conditions, given their expectations of long-term employment fostered by the company's communications and prior actions. Many of the employees had worked at TMCA for more than 25 years. They explained that their faith in the judgment of the company executives led them to ultimately conclude that such a decision was indeed inevitable, as had been explained to them by the company's global president in 2014. In reluctantly accepting the decision to close, most employees expressed little resentment toward the company¹⁴; they considered the company's efforts, both before and after the closure announcement, to be sincere. Many employees expressed sorrow at being forced to leave an employer that they considered quite special in its treatment of the workforce.

During the countdown period, the majority of TMCA manufacturing employees remained committed to and engaged in problem-solving projects in addition to their production or support work. When asked why they sustained efforts at such high levels, employees provided consistent answers. First, they bought into the company philosophy and appreciated the investment made in them in terms of training and capability. It was typical for manufacturing longer-term employees to have completed more than 50 and up to 100 training courses. Most of them spoke with passion in articulating the well-known statement, "My job equals my work plus Kaizen," meaning that it was standard practice to conduct continuous improvement through problem-solving as an integral part of their production work. Second, employees noted their appreciation for the fact that TMCA offered excellent pay and working conditions.¹⁵ The company's staff regarded compensation and benefits as sensibly generous, including in career development, travel, international secondment opportunities, and worker training/education. Overtime pay, achievable through attending training and problem-solving team meetings beyond normal work hours, further motivated employee engagement.

5.6 | Employee satisfaction, engagement, and enablement

Measures of employee satisfaction, engagement, and enablement, as well as manufacturing performance were frequently taken by both internal and third parties across the 4-year closure process. These data provide independent corroboration of the sustained and improved performance trajectories of the plant over the 4-year countdown period.

An independent research firm administered anonymous employee opinion surveys throughout the closure timeline. Individual employee records also provided in de-identified form demographic and employee intention data. Overall, the data indicate that positive trends were achieved in 80% of measures of employee sentiments during the transition toward closure. Employee sentiment quickly recovered from the shock that many long-serving employees experienced from the closure announcement. Through a period of intense communication by management in 2014/2015, overall sentiment measured across 2208 employees became more positive. Commitments to quality control and customer satisfaction were also evidenced during this period. A survey of manufacturing employees in December 2015 revealed 78% favorable responses, 18% neutral responses, and only 4% unfavorable responses to the statement: "I am committed to making the last car we make the best car we make."

TABLE 3 Trends in employee enablement and engagement

	2014	2015	2016	2017
Employee engagement (average agreement across four items)	69%	72%	74%	80%
Employee enablement (average agreement across four items)	60%	61%	64%	67%
Enablement	TMCA is doing a good job of monitoring and improving the safety of my work area Rate your manager/supervisor on coaching you in your development (e.g., conversations to help you identify ways to improve your performance and further your career) At TMCA there are no significant barriers (obstacles in the form of nonessential tasks, procedural restrictions/red tape) to doing my job well Working conditions (access to essential equipment, information, tools, and technology) in my job allow me to be as productive as I can be			
Engagement	My manager/supervisor proactively engages with me about changes that are occurring in the business Rate your intention to stay at TMCA Day-to-day actions of my manager/supervisor are consistent with their words (e.g., “walk the talk”) Attempts to innovate (successful or otherwise) are celebrated at TMCA			

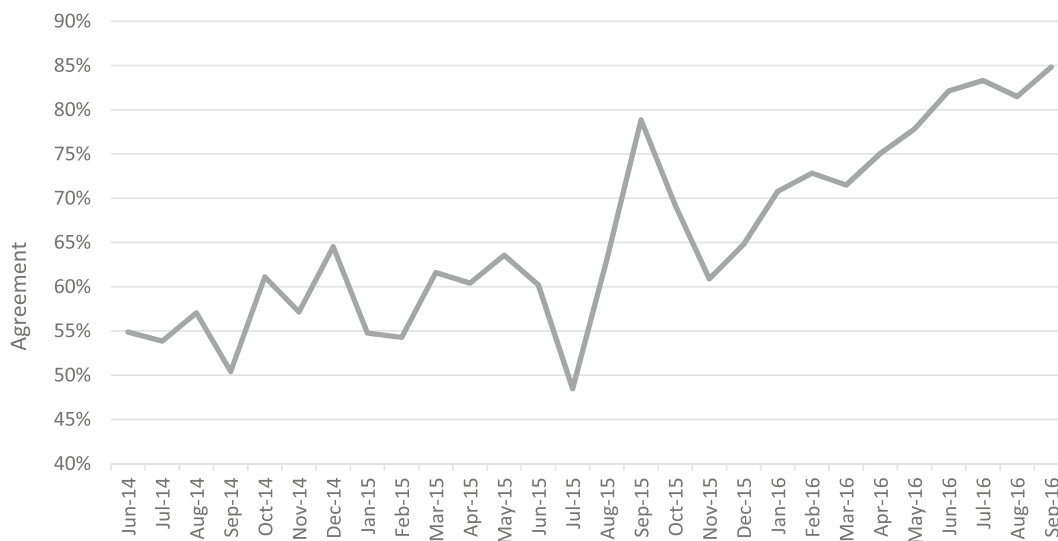


FIGURE 2 Trend in employee satisfaction 2014–2016. Trend scores represent the average across the following items: Overall, I am satisfied with TMCA at the present time; I receive relevant communications; The company is being open and honest in communications; Overall, TMCA is effectively managed and well run; I am given the opportunity at work to learn and develop; In my workgroup, safety is a priority over production targets; In my workgroup, quality is a priority over production targets; The DRIVE program is important and of value to me for my future

Table 3 provides annual average survey scores for measures of engagement and enablement; the overall averages reflect positive trends. By December 2016, three-quarters of the transition program had been implemented, with 10 months of the four-year process remaining until closure. In a third-party administered survey at this

time, 75% of employees indicated their levels of agreement with statements of willingness to go beyond normal job requirements to help TMCA, pride in working at TMCA, and an intention to stay at TMCA until closure or beyond, respectively. The score reflecting willingness to go beyond the norm was better than all three

benchmarks offered by the third party: Australian manufacturing norm, global automotive norm, and global high-performing plants norm. However, while better than the Australian norm, the scores for pride and intention to stay were lower than the global automotive and global high-performing plants benchmarks. Comparisons of survey data in 2016 indicated that TMCA employees' ratings of compensation, continuous improvement opportunities, training, and worker respect were higher than averages from other Australian manufacturing plants.

In addition to measures of engagement and enablement, scores reflecting employees' broader sentiments of satisfaction, trust, and support continued to improve throughout the 4-year closure process. Figure 2 shows the trend for overall sentiment scores throughout 2015 and 2016. Another salient item from annual surveys indicated employee's sentiments specifically regarding TMCA's respectful closure process. Agreement with the statement, "I am confident that TMCA will support me achieving a respectful transition to the next step in my working life", averaged 54% in 2015, 61% in 2016, and 71% in 2017. In the 2017 data, 29% of respondents were "unsure" and 0% disagreed with the statement. In another employee sentiment survey conducted in June 2017, 4 months before closure, 65% of respondents who would be leaving the company indicated they were positive or very positive about their future after Toyota; 30% were unsure about their feelings; and 5% were not positive about their prospects. Five hundred out of 2572 employees surveyed did not answer this question.

Managers met frequently to review the results from all these surveys and the primary researcher participated in these meetings. In general, their perspective reflected cautious optimism, recognizing the progress but also focusing on remaining challenges. The positive trends suggest that managers' efforts and the design of the transition program helped employees recover from the shock of the closure-induced PCB. Soon after the closure announcement of early 2014, the company executive team formulated its transition plan, with the new arrangements being very different to what the workforce was used to. Instead of indefinite work being part of the employees' perceived PC, there was now a clear time limit. Managers expected employees to continue to engage in improvement initiatives until the last day. For those who participated until then, the continuing emphasis on quality and lean production terminated with a six-figure payout. This new PC was formulated in 2014, pilot implemented in 2015, then fully rolled out in 2016–2017, involving the new initiatives of reskilling, upskilling and continued improvement work until "last car equals best global car" was to be achieved on the closure date. The

new PC presented managerial challenges and was not without risk. For example, it was not a foregone conclusion that the union would be supportive or that employees would take up the upskilling or reskilling initiative opportunities. Yet these risks were offset by potential upsides to the company from continuing at full production volume until the last day, as against incrementally ramping down as Ford and GM did. Toyota, as compared with Ford and GM, had no diminution in demand for their product, thus financially justifying full rate production until closure as well as the large investments in reskilling and upskilling.

5.7 | Union perspectives on the closure process

As suggested by the quotes of Smith cited in Section 3.1 and Rickarby cited in Section 5.4, though union representatives were disappointed in the plant closure decision, they generally came to view the closure process favorably. In 2016, the primary researcher was invited to meet with union representatives to discuss their roles in the closure proceedings. He interviewed five representatives, three of whom had long personal histories in the company and industry. The consensus view across the union representatives was that the closure was being managed respectfully and well, and that the soon to be redundant employees were being given generous terms of departure. Several interviewees mentioned the sincerity of the present generation of managers, drawing a contrast to the past days of industrial strife, mostly prior to 2005. The involvement of union representatives in designing the monetary payout given to redundant workers was high. They had raised only minor issues and recommendations regarding the Upskilling and Reskilling initiatives. In general, they felt that the company did a "sound job" in designing and implementing these programs, and that interests were aligned in the circumstances of mass redundancy and plant closure. An example of the union's participation was that the most senior union representative on site was the first employee to engage in the DRIVE/Reskilling initiative, acting as a role model and expressing overt support.

5.8 | TMCA operating performance in the countdown period

Measures of plant performance were published until the last car was assembled. TMCA continued to achieve high levels of employee productivity relative to performance prior to the closure announcement. In primary

production areas, managers stated that they continually re-emphasized the TPS focus on safety, productivity, quality, waste reduction, environmental outcomes, and customer service to guard against complacency and to maintain pursuit of the “last car equals best global car” goal. Some workers conveyed that the sense of urgency in pursuing productivity and quality improvements seemed to increase during the countdown period. As noted in the Rickarby quote above, employee participation in quality circles and completion of quality circle activity improved substantially. Independently assessed quality audits conducted in June 2017 also indicated positive outcomes on both plant performance and continuous improvement activity. Vehicle quality outcomes at closure were the highest they had ever been, comparing favorably to international automotive standards. In addition, an internally developed report delivered in 2017 showed that safety, productivity, and environmental performance did not decline in the countdown period.

6 | INSIGHTS AND THEORY ELABORATION

The TMCA plant closure experience provides a unique opportunity to observe how robust the practices and culture embodied in the Toyota Way can be in the context of a plant closure. The data collected through surveys, interviews, and direct interactions with TMCA plant personnel offer a perspective on the approach that was sown by executives and widely adopted throughout the organization as a cultural response to the closure challenge.

Employee's long work tenures and expectations of work at Toyota until retirement made the closure announcement a PCB in the minds of most employees. Toyota had a global reputation for protecting employees' jobs and only letting employees go as a last resort, as articulated in both its core principles and in its historical practice of training employees during downturns while other automotive companies engaged in layoffs. The closure decision appeared antithetical to these espoused values. Foregoing research suggests that perceived violation from PCB is conditioned by the cognitive distance between the breach action and organizational norms. In an organization where layoffs are rare, a PCB producing termination would be expected to elicit intense feelings of loss (Morrison & Robinson, 1997). Further, James (2019) describes how the Toyota Way is designed to integrate worker and company interests, engendering among employees a sense of belonging to the organization. Toyota asks its employees for greater levels of commitment and job involvement than in comparable employment situations (De Treville & Antonakis, 2006). Stoner

and Gallagher (2010) argue that such job involvement raises sensitivity to PCB. Highly involved employees suffer greater negative consequences and feel a greater sense of loss, as high job involvement requirements raise the level of the firm's psychological contract obligations perceived by employees. TMCA employees may have considered lifetime employment as an appropriate compensation for their intense commitments to process improvement and customer satisfaction. Psychological contract theory would therefore predict feelings of violation, and many interviewees did express shock at the announcement, accompanied by serious concerns regarding the impacts to themselves and their families. PCB theory further suggests that such feelings would reduce trust and commitment, and therefore lower work effort. However, the TMCA story suggests that other factors play important roles in moderating employees' responses to perceived PCB.

Contrary to the findings of Zhao et al.'s (2007) meta study of PCBs, TMCA's employees did not exhibit lingering affective emotions of violation and mistrust once they overcame initial shock, nor did they exhibit prolonged reductions in job satisfaction and in-line job performance. Indeed, our data suggest that the psychological alignment of the corporation and its workforce seemed to strengthen as closure approached. Literature suggests that high levels of performance during a closure countdown period are rare, both inside and outside the automotive sector (Bergman & Wigblad, 1999; Hasanen et al., 2011). In perhaps the worst of cases, it is reported that during the GM Fremont plant closure, “workers would often sabotage the very cars they were building, leaving bolts and soft drink cans in panels for instance to rattle and annoy customers.”¹⁶ Such sabotage led employees to achieve overtime pay while they fixed defects that they had deliberately implemented.¹⁷

On the other hand, a few plant closure studies document evidence of a countdown effect in which operational performance rebounds after a closure announcement. Explanations of this effect point primarily to process-oriented factors including simplified operations and intensified focus, or opportunity-oriented factors where employees are freed, and even required, to innovate because of staff reductions (Bergman & Wigblad, 1999; Butler et al., 2009). Another possibility is that employees hold out hope that improvements will change the closure decision.¹⁸ The GMA plant closure process fits more consistently with these prior reports of closure profiles; GMA instituted early production volume reductions and phased headcount reductions that may have simplified and focused processes while opening innovation opportunities for remaining employees. In contrast, the TMCA case does not fit the typical profile; it maintained both full production volume, two working

shifts, and full headcount until its last day. Thus, the TMCA case requires a different explanation for performance improvements and increasing levels of employee satisfaction during countdown.

Given the larger context of the closure decision, TMCA employees likely had little hope of saving the plant. Instead, our findings suggest that behavioral factors drove the results. Robinson and Morrison (2000) suggest that employees' attributions and fairness judgments are moderators of their affective responses to breach. Toyota executives influenced employee's attributions and judgments by clearly communicating the reasons for closure and by resourcing a respectful and orderly transition, as mandated by the company's global president. The Toyota Way philosophy guided the organization's values and behaviors during the closure process toward actions that were more consistent with its steady-state culture. Reflecting a stakeholder orientation (Berman et al., 1999), the focus at TMCA was often on the employees themselves; leaders expressed the belief that employees are at the heart of quality, safety, improvement, standardized work, and productivity in all aspects. In addition, the company had worked intensively over decades to become an employer of choice in its region, and to keep its loyal employees satisfied and productive while developing their capabilities. The psychological alignment between the company's values and those of employees remained strong during the period approaching shutdown, when all concerned were going through a great deal of change in a company that more usually thrives on standardized work. At TMCA, the initial breach in 2014 of the existing psychological contract can indeed be seen as part of a larger psychological contract change. The closure announcement that employees perceived as the point of breach was quickly followed by a new replacement psychological contract. This new 4-year finite employment relationship followed the principle of being most respectful and was well resourced in terms of the upskilling and reskilling initiatives. Hence, a best practice exemplified in this case is for managers to ensure that a severe breach such as a plant closure announcement is immediately followed by establishment of a new psychological contract so that employees are not left in a psychological vacuum. In the case of TMCA, the continued alignment and satisfaction levels signify that the employees accepted the new psychological contract as part of the change from the old, breached contract to the new arrangements.

TMCA leaders effectively introduced a new psychological contract that remained until closure. As described above, elements of the new contract included employment until the last day, a large redundancy payment for those who stayed until the end, continued process improvement

work that brought overtime pay with it, and investments in upskilling and reskilling for those who would leave in 2017. These actions built upon a substantial reserve of goodwill in the workforce, based on the psychological alignment that had been built over decades and was further cultivated during the 4-year transition period. When employees were asked by the researcher whether they really believed in the Toyota Way values and principles, the vast majority said that they felt aligned to these values, because they were practiced sincerely and led to mutual benefits. These findings relate to the high-performance work systems (HPWS) literature, recently updated by the study of Meuer (2017), who found complementarities among practices' impacts on productivity outcomes. Contrary to Meuer's finding, however, when the core work practice of job security was removed from TMCA's workplace, the intensity and effectiveness of HPWS at Toyota continued, and even increased. Employees explicitly reported that their commitments to safety, quality, and productivity were unchanged, yet what was changed by the PCB was the time horizon of such commitment, from indefinite to finite.

Toyota executives initially confirmed that both psychological contract theory and stakeholder theory were worthwhile perspectives for structuring the research project. However, during the work it became clear that neither perspective fully explained the experience at TMCA. Psychological contract theory explains some of the observed employee responses initially, but current elements of the theory fall short in explaining the motivation, depth, and intensity of employees' involvement throughout the 2014–2017 period. Furthermore, recent extensions to the theory do not fully address the unusual and dynamic conditions of a major shutdown and employee dislocation. Stakeholder theory provides a useful foundational perspective for explaining how a principled approach to all work matters can justify initiatives that have little expected financial returns on investments. But more details are needed to explain how a stakeholder orientation might be operationalized in the circumstances of a plant closure. The primary researcher repeatedly asked TMCA managers if they felt that the upskilling and reskilling initiatives would produce positive returns on investment. Their answer was consistently “no,” yet both initiatives were fully funded and deployed at substantial cost. Executives may have factored into their decision calculus the longer-term reputational benefits that could result from their closure approach, yet we observed that their greater motivation stemmed from a belief that it was the “right thing to do.” Such a view is consistent with normative and stewardship perspectives in stakeholder theory (Donaldson & Preston, 1995).

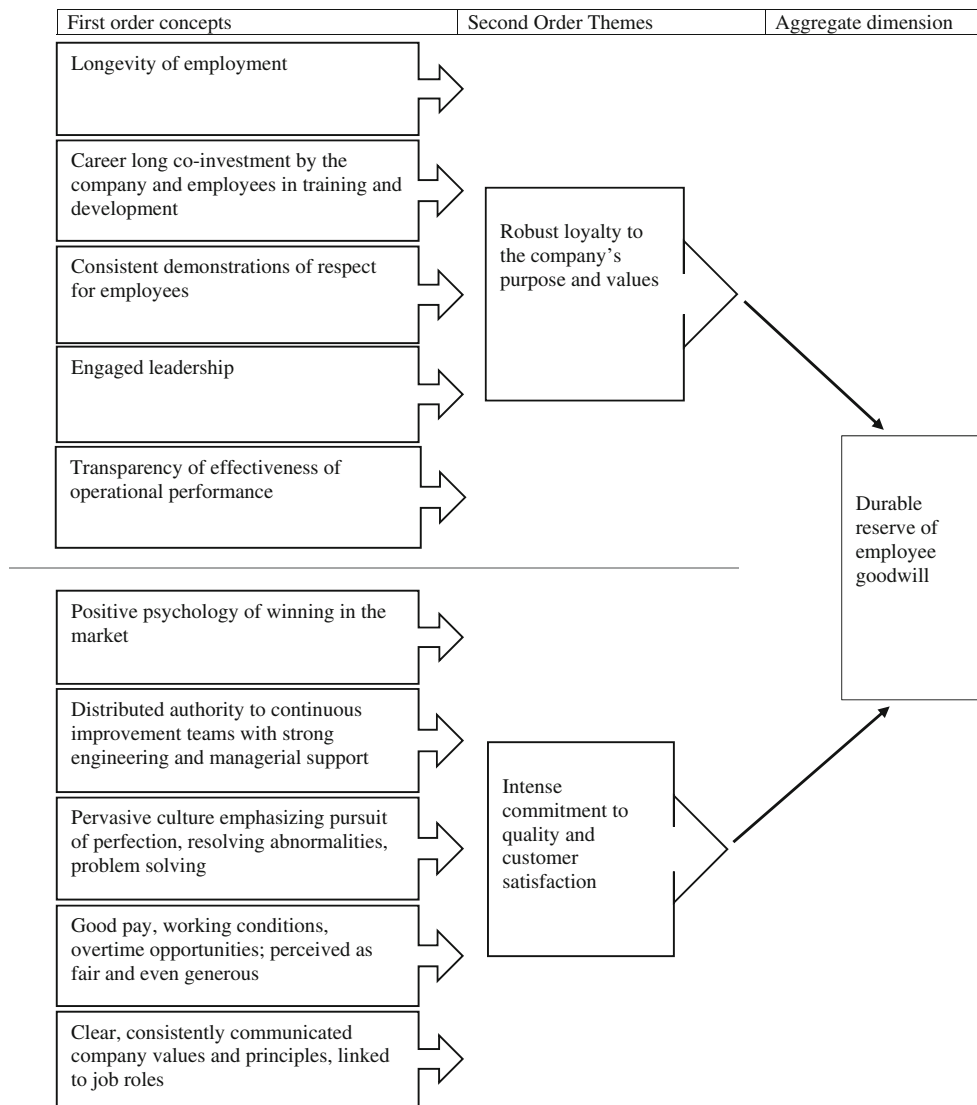


FIGURE 3 Steady-state reserve of goodwill elements, prior to breach

6.1 | Elaboration of psychological contract theory in the context of plant closure

Building on the foregoing observations, we followed Gioia et al. (2013) in creating data structure tables and an associated model to identify relationships among salient factors related to the PCB circumstances, leadership actions, and employee responses exemplified in the TMCA closure. Ketokivi and Choi (2014, p. 233) refer to the use of such qualitative approaches as searching for “meaning and interpretation in specific contexts of inquiry.” The theoretical perspectives discussed earlier fit well with the duality of case research criteria as posed by Ketokivi and Choi (2014, p. 234), being situationally grounded but also seeking a sense of generality.

The TMCA closure experience suggests that corporate values can be fostered, and actions taken, to moderate

the potentially negative outcomes emanated from PCB, including employees' lowering of commitment, job satisfaction, and performance (Morrison & Robinson, 1997; Zhao et al., 2007). In addition, exogenous factors including industrial and historical context can play important roles. These observed moderators go beyond the factors identified in existing research. For example, Morrison and Robinson (1997) propose that employees' sense of violation from PCB is impacted by their prior beliefs about the organization including good faith and the fairness of their treatment during the breach. The TMCA case data support this view, yet the data point to additional antecedents of prior beliefs, as well as to unique applications of the proposition to the plant closure context. Our developed insights are summarized by three main factors that appear to moderate the relationship between PCB and its expected outcomes in a plant closure context.

6.1.1 | Moderator 1: Durable reserve of employee goodwill

The interview data frequently point up themes related to employee loyalty and commitment that in turn created a reserve of goodwill. Figure 3 illustrates relationships among antecedents of employee goodwill indicated in the comments and classified quotes present in the data. First-order concepts that related to a second-order theme of loyalty included longevity of employment, co-investment in employee development, demonstrations of respect for employees, engaged leadership, and performance transparency. These elements of leadership and prevailing culture at Toyota's also manifested as what Dwivedi and Dwivedi (2007) refer to as loyalty drivers including care and concern for employees, fairness at work, day-to-day satisfaction, feelings of accomplishment, and compensation/benefits. As such, they relate to the center of employer-employee reciprocation that is implied by a psychological contract.

Longevity of employment. Increased feelings of belonging, sense of comfort with work and "family," and undergirding levels of commitment were strong. Most interviewees expressed satisfaction with their long-term relationship of employment with the company, along with an expressed desire to stay indefinitely, had the closure not been announced.

Co-investment in employee development. Even before the closure decision, TMCA had a history of investment in skills and capabilities by both employees and employer; this was a component of the pre-existing PC. Several shop floor employees mentioned that Toyota had involved them in traveling to regional conferences in Thailand or Japan to participate and present their continuous improvement work projects, and they demonstrated pride and gratitude for such opportunities. These kinds of engagements, along with career developments and other investments in employees, are likely to have raised a moral obligation and collective culture developed toward discretionary work effort (De Treville & Antonakis, 2006). Indeed, this was the cornerstone of the psychological contract that TMCA cultivated in its employees, long-term human and career development with reported good pay and overtime opportunities, exchanged for high levels of work effort in both primary work tasks and continuous improvement efforts.

Consistent demonstrations of respect for employees. Many interviews were conducted in a training room where Toyota Way principles were posted on the walls, and numerous interviewees pointed those out as guiding principles for them personally. The first principle, respect for people, was repeatedly identified by interviewees as being sincerely demonstrated by the company's leaders, as expressed in questions 6, 7, and 8 in Table 1. Datta

et al. (2010) note that leader-subordinate relationships characterized by respect can mitigate negative effects of downsizing.

Engaged leadership. A related first-order theme was conveyed as high levels of leadership engagement. Leader-employee interactions were appreciated by interviewees, who mostly spoke positively about the daily shop floor visibility of their team leaders, plant managers, operations directors, and the company President. All but one of 75 shop floor interviewees offered remarks related to this theme, noting the frequent formal and informal communications promulgated directly by executives, as well as through plant managers and team leaders, ALT structures, newsletters, and emails.

Performance transparency. Employees expressed that their loyalty and goodwill toward the company was related to the fact that they were informed about performance of their team, plant, and overall site performance outcomes. Obeya¹⁹ Walls and Centers placed throughout the plant provided employees with information about a variety of outcome measures related to their work. Canonico et al. (2020) describe the value of such transparency in other automotive industry settings. Being kept informed about manufacturing and company performance added to employees' sense of well-being and feeling respected.

In sum, interviewees both directly and indirectly intimated that these elements engendered a *robust loyalty to the company's purpose and values*. Such loyalty, combined with a sense of meaning stemming from the employment relationship was pervasive prior to the closure decision. The mindset grew through the long evolution of the initial Toyota Production System into the broader and more mature approach of the Toyota Way (Liker & Hoseus, 2010). Loyalty to company values was a constant goal and had been so for decades. Alignment of employee mindset and loyalty supersede industry norms and expectations that newly hired employees may bring with them (McDermott et al., 2013). This pre-existing loyalty presents as a second order theme in our model (see Figure 3), as it formed an important part of the context and originating condition that predisposed both the employer and the employees to enter a new psychological contract.

Distinguished from personal loyalty was the commitment that employees expressed toward achieving vehicle quality excellence and resulting customer satisfaction outcomes. Employee statements indicated that they firmly believed they were responsible for customer satisfaction via their produced vehicle quality. This belief stemmed from several supporting elements:

Positive psychology of winning. As noted above, employees were informed in newsletters and oral

communications about their product's leading sales and market share, and that their locally produced Camrys were as good in quality and customer satisfaction as those produced anywhere in the Toyota world; they led the markets in both Australia and overseas. This provided a sense of personal and collective pride, driving a desire to continue to strive for quality excellence outcomes. Martin (2005) suggests that these factors further impact motivation and productivity.

Distributed authority. Interviewees described Toyota's formal approach to delegation as empowering team leaders and members to engage in problem identification and solving, contributing to, and connecting them with quality and customer outcomes. Numerous employees spoke with pride of their personal contributions to quality improvement. This was confirmed in later 2016 and into 2017 when the primary researcher participated in ALT processes at the site. Processes followed a democratic and egalitarian approach (George, 1984; Liker & Convis, 2012) in jointly solving problems, with shop floor employees and managers working shoulder to shoulder. Both Datta et al. (2010) and Bergman and Wigblad (1999) identify employees' perceptions of control and empowerment as possible contributors to improved performance in downsizing and closure situations.

Pervasive culture/pursuit of perfection. Interviewees spoke of not just doing the work, but also of being capable and responsible for improving work processes and being motivated to "pursue perfection" through ALT and other problem-solving and continuous improvement processes. Womack and Jones (1996) describe this aspect of Toyota's general approach; it was in place as part of the base culture and way of working in the Melbourne plant.

Good pay and conditions of work. When questioned further about their motivation to engage in continuous improvement initiatives, interviewees spoke about the win-win nature of actions, in that the company benefitted from improvements, customers received better vehicles, and as we were told repeatedly, "We get paid overtime pay for that work." This was seen as an enduring part of the baseline of employer-employee relations by interviewees, and some expressed it as a connection between aligned outcomes for the company, customers, and, because of good pay and conditions, "my family." Toyota manufacturing workers were paid a base rate of \$55,000 to \$58,000 with bonuses, overtime, and other entitlements on top of that base; their pay on closure was determined as 5 weeks of pay per year worked, capped, such that some shop floor employees received \$120,000 payouts.²⁰

Clear, principled values. In both formal interviewees with workers and informal conversations with managers, employees were repeatedly asked to describe how the

Respect and Continuous Improvement principles were deployed. As detailed in questions 6 and 7 of Table 1, interviewees identified these principles as commitments that connected them to their employer and to each other. Both operations managers and shop floor team members expressed commitment and belief in the value of what they were individually and collectively doing at work, and had been doing, in most cases, for decades.

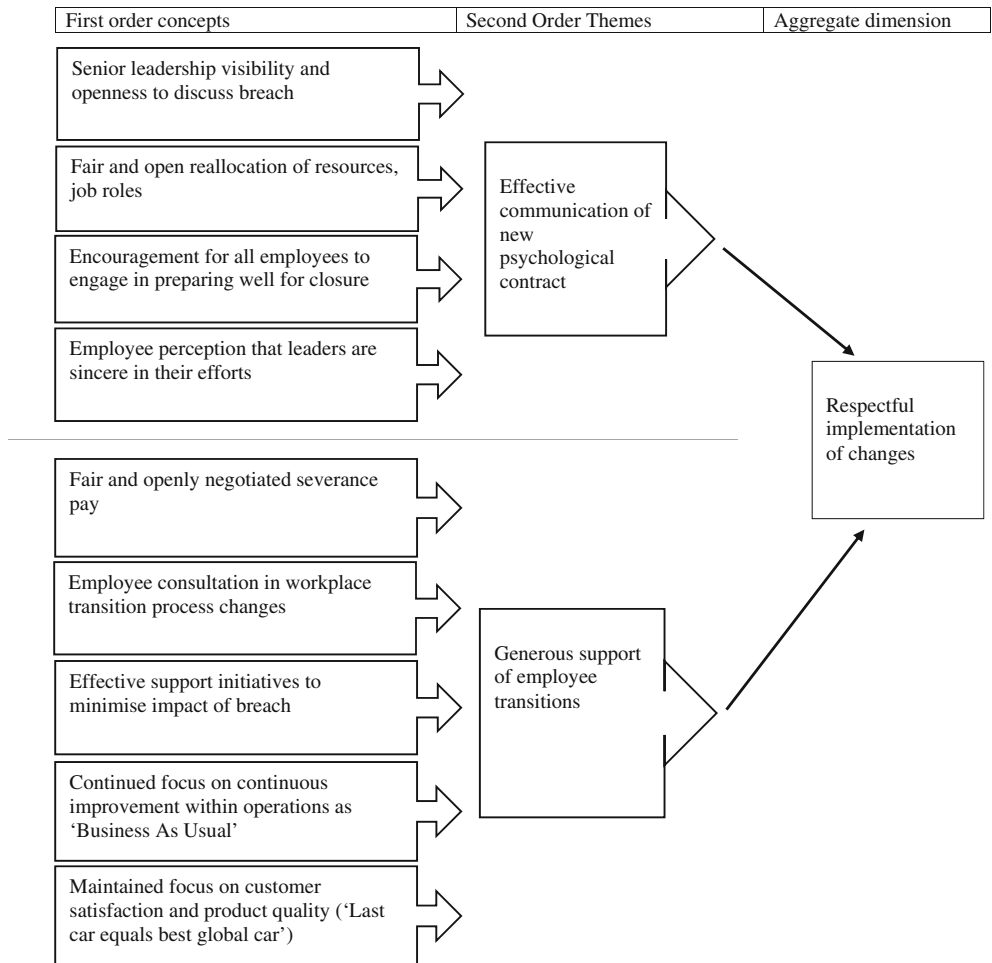
We observed that these motivating elements created levels of job involvement for employees that bred *commitments to quality and customer satisfaction*. Researchers state that job involvement involves cognitive preoccupation, engagement, and concern with one's job (De Treville & Antonakis, 2006; Paullay et al., 1994) whereby individuals identify psychologically with work (Lodahl & Kejner, 1965). From the beginning of our years of engagement, the primary researcher observed high levels of person-organization fit, alignment and engagement, and a passion for the business and its outcomes, across the workforce (Ho & Astakhova, 2017). While such job involvement may compound employees' feelings of loss, Stoner and Gallagher (2010) also empirically show that job involvement as psychological investment in work moderates the impact of PCB severity on both the depressed mood and turnover intentions of employees.

Taken together, the second-order themes of employee loyalty and commitment describe the state of the employer-employee relationship in the steady state period prior to the announced plant closure. Many employees expressed their disappointment at being forcibly separated from their "second family," expressed variably as the company/workplace/team-mates. They had previously assumed that they would stay until retirement, or, as a few said "forever: I would never leave here." When the plant closure was announced, these employees had a long way to fall emotionally; many expressed a profound sense of loss. However, reactions to the closure and associated psychological breach were influenced by employees' history of long, strong bonds with the company. Employees from plant manager to shop floor viewed the breach through that lens. They considered their prior experiences to form a substantial backdrop to their current circumstances, as these experiences had engendered a *durable reserve of employee goodwill* (see Figure 3).

6.1.2 | Moderator 2: Respectful implementation of changes

TMCA plant managers and executive leaders followed an approach of intense and open communication throughout the 2014–2017 countdown period. Our interviews

FIGURE 4 Respectful post-breach actions and initiatives



with shop floor employees and middle managers provided evidence of their perceptions of leader visibility, sincerity and commitment that signaled consideration and respect for employees as important stakeholders. These perceptions were influenced by several management actions, including:

Leadership visibility and openness. After the closure was announced in February 2014, Toyota created a transition management team, who planned and executed oversight of the many initiatives described earlier. The company's leaders went to great efforts to "over-communicate" as one executive expressed it, to get employees through the shock period, and keep them motivated to transform their work lives, while keeping the plant running and improving. Company leaders made themselves available, for example at formally scheduled lunchtime discussions in the canteen, for open discussions with shop floor team members, and practiced *Management by Walking Around* (Tucker & Singer, 2015). These actions resolved problems and signaled commitment, rather than merely "lip service" (see Table 1, question 6).

Fair and open reallocation of job roles. In the early stages of the transition, employees felt trepidation

regarding who would stay and who would leave, and how this would be decided, but these feelings resolved in time. As employees became resigned to their outcomes, they expressed overall satisfaction with the decision processes. Some middle managers were redeployed into new roles, but most manufacturing employees lost their jobs. Once a process for reallocation was devised and deployed, interviewees expressed satisfaction with it as fair. The review of downsizing literature provided by Datta et al. (2010) identifies several studies that point to perceptions of distributive justice as important in dampening employees' feelings of dissatisfaction during PCBs.

Encouragement for employees to prepare for closure. Once the Upskilling and Reskilling initiatives had been designed, approved, funded, and installed, Toyota leaders asked TMCA executives and managers to encourage all employees to make use of them. With the closure date looming, many rounds of communications were made, with feedback and advocacy from early adopters, descriptions of benefits being given, and many other forms of invitation. Table 1 includes quotes about how these signals were mostly positively received.

TABLE 4 Quotes from Toyota administered interviews with selected employees on the day of plant closure (October 3, 2017)

Position: Senior Specialist, Quality Control Department

Future goal through the DRIVE program: Math and physics teacher in secondary education “Without the DRIVE Program, I don’t think I would have followed up any career opportunities. I would have just waited to see the closure and then hoped I would have found another job. It turned a negative into a positive in my case because it gave me the chance to chase a new career and develop further options that I never had before. It opened more doors than I could have ever imagined. I feel like I’m ready to go into the job market. In actual fact, I’m ready to go now. There are opportunities coming up on a daily basis, so once I finish my current position I’ll be able to succeed and fulfill a position out there for a teaching vacancy.”

Position: Import Material Manager, Production Control Division

Future goal through the DRIVE program: Consultant in lean business improvement “I walked into the DRIVE Program with a confused mindset. Fortunately, I had a good consultant. I received a lot of advice, so I was able to narrow down what I wanted to do. I’m currently reskilling. I’m doing a Six Sigma Black Belt course. This is a high-demand certification that I’m prepared to go through, and the company is supporting me financially. Within another few months, I’ll finish my project and I’ll obtain my certification. This will put me in a better position after Toyota to find a secure job.”

Position: Environmental Policy Manager, Corporate Affairs

Future goal through the DRIVE program: German and science teacher

“The support I got from the DRIVE Program was really, good. It was a very personalized service. I got my case manager and we spoke about the future. They did not have to do any of that, the DRIVE Program, but I remember how our global president, Akio Toyoda, said at the closure announcement that he would make sure that we were all taken care of, and it would be done in the best possible way. It would not be Toyota if we would not do this the best possible way. I’m confident that other people that are leaving will take these very unique and well-regarded skills out into the broader workforce. Toyota will stay with us for many years to come.”

Perception of sincere efforts. As was the case in steady state before the announcement, employees expressed their perceptions regarding the sincerity of the company’s managers; many acknowledged that this was evident from actions including reskilling and upskilling initiatives and resources, not just words. Many of the managers explicitly espoused “Heartfelt Leadership” as a term describing their approach following the emotional closure announcement made by the global President in February 2014 (Figure 1). Most employees and managers that we interviewed were aligned to this concept (Table 1, question 6), thus building feelings of management trustworthiness (Datta et al., 2010).

These elements collectively contribute to a second-order theme of *effective communication of new psychological contract*. Communication intensity and style reflect the “soft elements” of leadership (Freeman, 2009) that shaped the cultural expectations of employees. We observed that this expectation played a key role in motivating employees’ behaviors during the transition.

The new psychological contract differed from the old steady state contract. An opportunity for indefinite employment was replaced with efforts to prepare employees for life after Toyota. These supportive efforts served as partial compensations for employees’ continued commitments to continuous improvement. In addition, interviewees spoke at length about the more tangible actions and supportive initiatives launched during the transition toward closure (see Figure 4).

Fair and openly negotiated severance. Union leaders that we interviewed asserted that the negotiations of the severance packages were conducted in good faith. Generally, leaving employees reportedly felt the severance terms were generous. In addition, morale for the 1300 people who were not leaving the company was positively impacted by how well the leavers were treated. These observations were consistent with Stengard et al. (2015), who found that employees who feel that severance packages are satisfactory convey higher levels of well-being and more positive attitudes. They suggest that generous severance and career counseling are ways for the closing organization to shift to a new psychological contract focused on facilitating workers’ transitions (Marks & Vansteenkiste, 2008).

Employee consultation in workplace transition. Stakeholders from the workforce were closely involved in developing transition support processes. The design of the upskilling and reskilling initiatives incorporated union representative views, as well as inputs from employee groups. Employee feedback was solicited in multiple ways by the company’s most senior leaders, including structured lunchtime feedback sessions, for example. These interactions engendered a sense of workforce ownership of the transition arrangements.

Effective support initiatives. Comments noted in Table 1 suggest that tangible support initiatives were central in making the TMCA closure different from others in Australia and described in the literature. Further evidence is provided by interviews of selected employees administered by Toyota the day of plant closure (see

quotes in Table 4 that were independently published by Toyota) and by the magnitude of the resources dedicated to the closure initiatives, being more than three times as much per employee as the GMA closure. Interviewees articulated positive responses to the upskilling and retraining initiatives (see specific questions 4 and 5 and related interviewee quotes in Table 1), indicating that they signaled that the respectful transition wasn't just rhetoric; it was auctioned, focused primarily on leavers, and well resourced. In addition, commentators in Australia's national business newspaper²¹ acknowledged the extent of these resources, and employees expressed their appreciation for them in our interviews.

Continued focus on continuous improvement. Employees we interviewed were committed to the efforts that were ongoing under the "Last car equals best global car" theme. Employees were intent on maintaining their focus on pursuing perfection in how all the company's internal, plant and office, processes were being affected. This "business as usual" approach may have deterred employees from a focus on transition and feelings of futility. They continued to find meaning in their work as they were encouraged to continue to express creativity and initiative, factors that have been associated with growing productivity in countdown periods (Bergman & Wigblad, 1999).

Maintained customer focus. Numerous interviewees told us of their sense of connectedness with the customer. Though plant workers did not interact with customers directly, a monthly newsletter reported on quality and customer satisfaction, bringing the voice of the customer closer to employees. A broad literature addresses the roles of super-ordinate goals in mitigating intergroup conflict. The dual focus on internal process improvement and customer satisfaction seems to have served similar purposes in dampening conflicts, both in employee feelings and across employee interactions, that otherwise may have arisen during the closure process. Further, Hasanen et al. (2011) explain that clear goal rationale during closure processes can improve workers' job performance.

In aggregate, these tangible elements of severance pay, consultation, support initiatives, continued intensity of improvement, and focus on customers created a perception among employees that the company offered *generous support of employee transitions*. This support, coupled with effective cultivation of a new psychological contract, exemplified ways in which the company communicated and executed a *respectful implementation of changes*.

6.1.3 | Moderator 3: Contextual drivers of attributed responsibility

A third important factor in explaining the TMCA employee responses is the external context of the closure

decision. We believe that the effects of the closure announcement and associated PCB on employees' attitudes and performance were shaped by the historical and industry events leading up to the closure decision. These contextual factors influenced the *responsibility attribution* made by employees. Prior research suggests that employee's perceptions of responsibility for the breach condition moderate their reactions (Cappelli, 1999; Morrison & Robinson, 1997; Robinson & Morrison, 2000). To the extent that employees locate blame for a breach condition to external causes, they are less likely to respond in retaliatory or counter-productive ways.

Interviewees told us of the nuances of felt emotions and reasoned attributions when they discussed why the closure occurred. Many employees acknowledged that TMCA was indeed caught in a larger industry-level change. They understood that, because of uncompetitive cost elements and the other concurrent closures, Ford and GM, Toyota's corporate interests were served by closing the local facility. At the same time, there was debate about whether the TMCA closure was inevitable, exogenously forced, and the extent to which it was influenced by factors outside the company's control. Some employees expressed the view that Toyota was strong enough and large enough to keep going as the sole Australian assembler, while others expressed the opposite view. For most, Toyota's closure decision was interpreted as ultimately a business decision made by the company, for the company, albeit reluctantly, respectfully, and with sincere regrets. Along with holding this view, however, most employees considered the larger contextual factors that put Toyota in the position of having to make a difficult choice. Most employees were generally aware of the troubled history of auto manufacturing in Australia and the concurrent closures of GM, Ford, and many suppliers, though they may have been less familiar with the economic pressures of an inflated local currency and the arduous relationships between the Australian government and the automakers.

It seems highly likely that for some employees the broader events related to the economy, competitors, suppliers, and industry-government relations diverted some of their responsibility attribution to these external forces. While the events may be viewed as exogenous influences on Toyota's decision to close the plant, feelings of violation were likely dampened for employees who understood and considered the larger context. One can envision a much different employee reaction had TMCA been the first Australian plant to close. Interestingly, an exogenous forces interpretation of events was generally avoided as a discussion point by managers and executives in our interviews, whose sole focus and messaging was future-oriented on implementing the respectful closure.

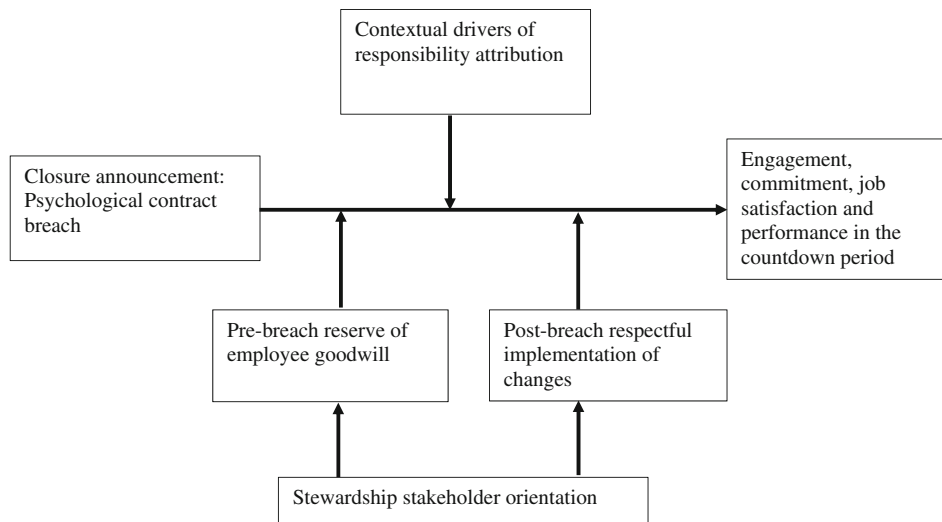


FIGURE 5 Proposed model of plant closure performance effects

6.2 | A model of plant closure combining stakeholder and psychological contract perspectives

Figure 5 illustrates a model that integrates the factors we understand to be important drivers of employee responses to the PCB of plant closure. Zhao et al. (2007) offer a model of PCB including sequential stages of breach, affective reaction, attitude change, and impact on individual effectiveness. Their empirical analysis points to the importance of the type of breach in governing this causal chain. A *transactional* breach affects specific, monetizable exchanges over a limited period such as obligations about high pay and merit pay, whereas a *relational* breach concerns long-term exchanges that maintain the employee–employer relationship such as obligations about personal support and a meaningful job (Robinson et al., 1994). As exchanges become more relational, norms increasingly dictate against self-interested, opportunistic behavior. “Thus, when a breach is perceived, it strongly violates the beliefs and assumptions governing that relationship” (Morrison & Robinson, 1997, p. 247). In contrast to this model, our model derived from the TMCA case data suggests that intensely relational exchanges can also serve to mitigate employees’ affective, attitudinal, and effectiveness responses to PCBs.

TMCA employees had strong relationships with their employer, from which they extracted satisfaction and meaning associated with their work. In return, they provided high levels of effort in continuous improvement. The psychological alignment of employees with their employer is shown by their candid statements in answering questions about their sense of belief in what the company stands for, as well as their products, services and customers, and their sense of connectedness to their own

personal gains, both monetary and developmental. James (2019) suggests that this level of employer–employee relationship stems from Confucian foundations of the Toyota Way that emphasis mutual trust, the assumption of the basic goodness of human nature, group harmony, and education. These traits yield a sense of belonging among employees and minimize the need for control from above, while inculcating loyalty, commitment, work ethic, and discipline. De Treville and Antonakis (2006) argue that certain configurations of “lean” manufacturing practices akin to the Toyota Way can engender intrinsic motivations in workers. As noted earlier, they echo the critical importance of “respect for workers” as an organizing principle (De Treville & Antonakis, 2006).

In the context of the TMCA closure, interviewees spoke of the human approach of leaders, explicitly referred to in TMCA as heartfelt leadership, along with the corporate values described above. These factors reflect a broad stakeholder approach to management, which underpinned the management decisions and actions that comprise the proposed moderators we extracted from the data analysis; employees perceived that the company viewed and treated them as key stakeholders. This perception was sometimes communicated in semi-structured interviews directly, and sometimes relatively obliquely, as shop floor employees were primarily focused on their own fates. Nevertheless, our subsequent discussions with executives gave clear indications that both the moderators represented in Figure 5 were present because of the common underpinning of Toyota’s founding values, which emphasize doing good for a broad set of stakeholders. In addition, stakeholder values were reflected in company policies and practices. Respect for the environment was evident in plant practices, measurements, and improvement efforts related to emissions and material waste reductions. Customer satisfaction was

measured frequently and attended to, especially in the occurrence of a defect or abnormality. Evident measures of quality and service created mindfulness of the connections between employees' work and consumers' satisfaction. As noted earlier, TMCA initiated several social interactions with and commitments to the local community. As depicted in Figure 5, these reflections of stakeholder orientation exert foundational influences on the moderators of responses to PCB (Berman et al., 1999). We conclude that, lacking the stewardship of stakeholder concerns evidenced at TMCA, both the pre-breach workforce goodwill and the post-breach respectful transition would likely not have been present in sufficient strengths to have ameliorated the negative impacts of the PCB on performance outcomes.

The third moderator illustrated in Figure 5 acknowledges the importance of context. The TMCA plant closure can be seen as the culmination of a long developing set of circumstances, many outside the immediate control of Toyota executives. In keeping with other studies of PCB, we suggest that context can play an important role in the ways that employees attribute responsibility for a breach. Industrial relations, historical events, economic conditions, and other factors could be seen by employees as making the breach the fault of the employer. We envision a spectrum of contexts that would produce varying influences on attributed responsibility. On the one hand, in circumstances in which a war or other wholly exogenous event causes a plant closure, the employer might be seen to bear essentially no responsibility for a PCB. On the other hand, if a company is seen as acting purely in its own profit-maximizing interests, such as when automotive plant operations were moved from Detroit to the Maquiladora region, employees are likely to experience much stronger feelings of violation.

Some of the first-order concepts undergirding the second-order themes and aggregated moderators identified in our model echo findings of previous research cited above, while others are new and perhaps more finely related to the plant closure context. However, the proposed model is novel in suggesting how the various elements coalesce into higher-order effects that serve to moderate the typically observed performance declines in plant closure count-down periods. It also provides insights into the potential relative contributions of actions taken in pre-closure decision and post-closure decision periods. The relational and values-based factors created in years leading up to a closure decision build a foundation upon which management's supportive actions in the count-down period are perhaps more liberally and trustingly received by employees. We suggest that, along with context, the overarching factors of employee goodwill and respectful change are important factors that can

explain differences in employee engagement, commitment, job satisfaction, and performance in periods of transition toward plant closure.

7 | CONCLUSIONS, FUTURE RESEARCH, AND MANAGERIAL IMPLICATIONS

Psychological contract theory has been applied to many different contexts. In the stream of research that addresses instances of PCB, the prevailing model suggests that perceptions of a breach lead to feelings of violation and betrayal, which then produce negative outcomes in terms of depression, job satisfaction, turnover intentions, feelings of commitment or obligation to the organization, and ultimately, work behaviors. However, only a few foregoing studies examine PCB in the context of plant closure, where termination is the basis of the breach, and these offer only limited examinations of mitigating factors (Blau, 2006, 2008; Stengard et al., 2015). In this context, feelings of violation pertain to the expectation of long-term employment. Where HRM researchers tend to focus on employees' affective and cognitive reactions to PCB and employee attributes such as mood, self-esteem, tenure, employability, as moderators of these effects, we focus on changes in employee behaviors and in-role performance, because these behaviors and performance directly impact safety, process productivity, vehicle build quality, machine maintenance and reliability, and indeed all aspects of operational outcomes. Further, we center on management's pre and post breach actions that served to mitigate employees' negative responses, while also being designed to address broader stakeholder concerns.

We conclude that the longstanding strengths of the relationships and loyalties engendered by a stakeholder orientation in action led to positive outcomes in the context of widespread redundancies. The ingrained culture and values largely endured the shock. The company attempted to implement a respectful transition, and employees responded in kind. On essentially all key measures of performance, outcomes were improved, including cost reductions and quality, and problem-solving participation. It was found that the specific initiatives applied to the workforce, namely upskilling and reskilling, contributed substantially to the psychological realignment of the workforce and the company during their difficult period of adjustment.

The TMCA closure experience presents unique examples of several managerial action factors identified in the literature. These findings are useful for operations management researchers who want to examine relationships among workforce policies and systems and operational

outcomes. In addition, the case data point out new moderating factors, which synthesize into a model for future research. The proposed model and associated observations call for further development toward a comprehensive theoretical framework that links corporate values and operating principles with stakeholder relations. In Toyota, these linkages create the fabric that undergirds their business success, as well as their respectful interactions with employees and other stakeholders.

In practical terms for managers deciding about or managing plant closures, key implications are that firstly, plant closures can be considered by employees to be a severe violation of their psychological contract, perhaps especially so if the company is successful. Second, the context and employer-employee relations before closure influences employee's expectations of the company's obligations to its employees on closure. Third, the way that managers treat employees during the countdown period exacerbates or mitigates employees' satisfaction, commitment levels and actions. These contingencies can moderate the typical diminishing of performance in plant closure countdown periods. The Toyota Australia plant closure demonstrated that authentic respect, investments in upskilling and reskilling, and continued focus on product quality, plus incentives for employees who worked effectively until the last day, mitigated effectively against employee's potential negative reactions.

MacCormick and Parker (2010) acknowledge Toyota's ability to embrace contradictions. This ability was on display in this instance, in that TMCA was able to preserve manufacturing stability while going through extreme change. We conclude that this robustness is rooted in a deeply principled values-based approach designed to consider and value employees, communities, and the environment as relevant and important stakeholders. As researchers who were actively engaged in the TMCA closure process, we are convinced that, had TMCA managers not been steward-like in enacting its respect for people principle, the upskilling, reskilling, and other support initiatives would not have been nearly as comprehensive or effective. A shorter-term transactional view would have led to lesser investment in support of employees' transitions, and it would likely not have perpetuated the levels of employee engagement, performance, and satisfaction achieved. Freeman (2009) wrote of his experiences using soft hands in treating employees during plant closures; the TMCA closure exemplified this approach, demonstrating the power of closely held stakeholder values in managing change.

The expression of corporate values through operating principles and policies is central to the core themes of this special issue of the *Journal of Operations Management*, which focuses on socioeconomic outcomes such as

access to employment, job quality, and climate impact. Interest in values-based management has emerged in disciplines such as accounting and finance, in which principled approaches are argued as being superior to transaction-oriented approaches (Folsom et al., 2017). This concept has attracted a small amount of attention in managerial and leadership studies, yet the engrained value structure within Toyota merits further attention, both in terms of its theoretical and practical implications. It has been standard practice for Western automotive companies to take more agent-like stakeholder postures focusing foremostly on profit (Samson et al., 2018), sometimes leading to deleterious human outcomes such as in the Ford Pinto exploding gas tank debacle (Lee & Ermann, 1999) or the more recent Volkswagen emissions cheating scandal (Zhang et al., 2021). Future research might build upon the findings of the TMCA story to formulate actionable prescriptions for broader values-based management perspectives.

Further research is also warranted into best practices of closure and displacement of workforces. We need to extend or develop new theory that explains the behaviors of managers and employees in a range of closure circumstances. Our study is limited to one company's experience, thus other company stories can provide useful points of comparison. Consider, for example, the decline of General Motors (Helper & Henderson, 2014). GM has continued to restructure, closing five more plants in North America just in 2018²² and reducing volume produced by 30% from 2016 to 2019. Plant closure management practice could benefit from study of these and other similar cases. Future researchers might examine the presence/absence of the elements expressed in our proposed model to determine which ones are most critical in driving positive outcomes, or if all factors work together in a synergistic way (De Treville & Antonakis, 2006). More broadly, theory that relates organizational core values to practices and outcomes in such circumstances is not yet developed. Net present value calculus fails to explain why Toyota allocated extensive resources to reskill and upskill its departing employees; thus, a new calculus of values and total stakeholder utility is warranted to both explain such instances and guide decision makers. Relatively little is known about how companies with less intense culture and value systems handle such situations, except that there is often a loss of value in affected communities. While the case study examined herein is of essentially a best practice exemplar, a comprehensive examination of a spectrum of closures is called for at the organizational level, warranted by the expectation that there will be more closures occurring in the future due to the forces of globalization, trade wars, offshoring/reshoring, and technology-based disruptions (Shockley

et al., 2020). The reskilling and upskilling initiatives at TMCA provided benefits in terms of psychological alignment and loyalty, yet further research is needed to consider how such initiatives might have been done differently, within different industries or national cultures, or indeed whether entirely different initiatives might have been effective in keeping a workforce engaged and productive as closure approaches. A body of knowledge needs to be created about how best to manage closures using a multi-stakeholder perspective (Samson et al., 2018). The increased movement of operations will likely cause plant closure capability to emerge as a valuable differentiator for manufacturing firms.

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ENDNOTES

- ¹ James (2019) recounts the history of industrial relations between TMCA and Australian unions up to 2015. The study does not address TMCA actions during the plant closure period.
- ² Toyota had closed other facilities such as NUMMI in California and a small facility in New Zealand. However, Toyota executives framed this as a “first ever major closure” of a plant for their company.
- ³ <https://www.theguardian.com/business/2019/dec/19/oshawa-general-motors-plant-closure>.
- ⁴ <https://www.carsguide.com.au/car-news/two-car-brands-top-2019-customer-satisfaction-survey-76943>.
- ⁵ <https://www.isecars.com/vehicle-recalls-study>.
- ⁶ <https://www.theguardian.com/business/2010/jan/29/timeline-toyota-recall-accelerator-pedal>.
- ⁷ This positive statement stands in contrast to other negative statements found in: Massola, J., Australian Manufacturing Workers Union at “war” with Toyota: Joe Hockey, Sydney Morning Herald, 14 January 2014.
- ⁸ Managers expressed this fondness directly to the primary researcher on background visits to Toyota’s global headquarters in Japan. Fujimoto (1995: <https://gerpisa.org/ancien-gerpisa/actes/26/26-3.pdf>) also points to Toyota’s positioning of its Australian manufacturing operations as an important “Middle size centre for the southern hemisphere.” TMCA had been one of Toyota’s oldest foreign operations, and in the 1990s one of its highest performing in terms of quality and productivity.
- ⁹ https://global.toyota/en/company/vision-and-philosophy/toyotaway_code-of-conduct/.
- ¹⁰ Indicated in our interviews with executives from Ford and GM.

- ¹¹ Total national production had dropped to 165,000 vehicles due to reduced demand for locally produced Ford and GM Holden vehicles. The flagship models of Ford and GM, named Falcon and Commodore, had declined in volume to below 20,000 and 30,000 units respectively, by 2015.
- ¹² http://www.toyota.com.cn/company/vision_philosophy/guiding_principles.html.
- ¹³ <https://planet-lean.com/toyota-australia-lean-thinking-securing-futures/>.
- ¹⁴ Only one interviewed employee expressed negative sentiment regarding the breach.
- ¹⁵ Senior Toyota executives confirmed that TMCA typically operated in the top quartiles in pay and working conditions.
- ¹⁶ <https://medium.com/10x-curiosity/worst-to-best-lessons-from-nummi-4cde7eb41f21>.
- ¹⁷ <https://www.popularmechanics.com/cars/a5514/4350856/>.
- ¹⁸ We thank one of the reviewers for suggesting this possibility. Even Clibborn et al. (2016) expressed hope that auto manufacturing in Australia might be preserved.
- ¹⁹ Displays of a variety of performance and process measures in every plant showing performance, targets, and tracking of improvement initiatives.
- ²⁰ <https://www.news.com.au/national/toyota-factory-workers-get-a-200-million-payout/news-story/43b3f3ba36f94c7780c01066af650346>.
- ²¹ <https://www.afr.com/companies/manufacturing/toyota-closure-heralds-the-end-of-carmaking-in-australia-20171002-gysv65>.
- ²² <https://www.bbc.com/news/business-46350057>.

REFERENCES

- Adler, P., & Cole, R. (1993). Designed for learning: A tale of two auto plants. *Sloan Management Review*, 34, 85–94.
- Adler, P. S. (1995). Democratic Taylorism the Toyota production system at NUMMI. In S. Babson (Ed.), *Lean work: Employment and exploitation in the global auto industry* (pp. 207–219). Wayne State University Press.
- Bergman, P., & Wigblad, R. (1999). Workers’ last performance: Why some factories show their best results during countdown. *Economic and Industrial Democracy*, 20(3), 343–368.
- Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. (1999). Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal*, 42(5), 488–506.
- Blau, G. (2006). A process model for understanding victim responses to worksite/function closure. *Human Resource Management Review*, 16, 12–28.
- Blau, G. (2008). Exploring antecedents of individual grieving stages during an anticipated worksite closure. *Journal of Occupational and Organizational Psychology*, 81, 529–550.
- Bolt, A. (2014, February 12). *How Toyota unions killed their members’ jobs*. Herald Sun.
- Butler, M. J. R., Sweeney, M., & Crundwell, D. (2009). Facility closure management: The case of Vauxhall motors Luton. *International Journal of Operations & Production Management*, 29(7), 670–691.
- Canonica, P., De Nito, E., Esposito, V., Iacono, M. P., & Consiglio, S. (2020). Knowledge creation in the automotive

- industry: Analyzing Obeya-oriented practices using the SECI model. *Journal of Business Research*, 112, 450–457.
- Cappelli, P. (1999). *The new deal at work: Managing the market-driven workforce*. Harvard Business School Press.
- Cascio, W. F. (1993). Downsizing: What do we know? What have we learned? *Academy of Management Executive*, 7(1), 95–104.
- Clibborn, S., Lansbury, R. D., & Wright, C. F. (2016). Who killed the Australian automotive industry: The employers, government, or trade unions? *Economic Papers*, 35, 2–15.
- Conley, T. (2022). The decline and fall of the Australian automotive industry. *The Economic and Labour Relations Review*, 33(2), 415–433.
- Datta, D. K., Guthrie, J. P., Basuil, D., & Pandey, A. (2010). Causes and effects of employee downsizing: A review and synthesis. *Journal of Management*, 36(1), 281–348.
- De Treville, S., & Antonakis, J. (2006). Could lean production job design be intrinsically motivating? Contextual, configurational, and levels-of-analysis issues. *Journal of Operations Management*, 24, 99–123.
- Donaldson, T., & Preston, L. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*, 20(1), 65–91.
- Dwivedi, Y. K., & Dwivedi, A. (2007). A practitioner perspective on drivers of employee loyalty. *International Journal of Human Resources Development and Management*, 7(3–4), 276–285.
- Eckerd, S., Hill, J., Boyer, K. K., Donohue, K., & Ward, P. T. (2013). The relative impact of attribute, severity, and timing of psychological contract breach on behavioral and attitudinal outcomes. *Journal of Operations Management*, 31, 567–578.
- Fassin, Y., de Colle, S., & Edward Freeman, R. (2017). Intra-stakeholder alliances in plant-closing decisions: A stakeholder theory approach. *Business Ethics: A European Review*, 26(2), 97–111.
- Fisher, S., & White, M. (2000). Downsizing in a learning organization: Are there hidden costs. *Academy of Management Review*, 25(1), 244–251.
- Folsom, D., Hribar, P., Mergenthaler, R. D., & Peterson, K. (2017). Principles-based standards and earnings attributes. *Management Science*, 63(8), 2592–2615.
- Forsyth, A. (2014, June 9). *Canada and Australia: A tale of two car industries*. *The Conversation*.
- Freeman, K. W. (2009). The right way to close an operation. *Harvard Business Review*, 87(5), 45–51.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
- Freeman, R. E., & Evan, W. M. (1990). Corporate governance: A stakeholder interpretation. *The Journal of Behavioral Economics*, 19(4), 337–359.
- Fujimoto, T. (1995). Toyota Motor Manufacturing Australia in 1995: an emergent global strategy. *Actes du GERPISA*, 26, 37.
- George, P. S. (1984). Theory Z and schools: What can we learn from Toyota? *NASSP Bulletin*, 68(472), 76–81.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15–31.
- Graham, L. (1995). *On the line at Subaru-Isuzu: The Japanese model and the American worker*. Cornell University Press.
- Guthrie, J. P., & Datta, D. K. (2008). Dumb and dumber: The impact of downsizing on firm performance as moderated by industry conditions. *Organization Science*, 19, 108–123.
- Hansson, M., & Wigblad, R. (2006). Pyrrhic victories – Anticipating the closedown effect. *International Journal of Human Resource Management*, 17(5), 938–958.
- Harrison, J., & Wicks, A. C. (2013). Stakeholder theory, value, and firm performance. *Business Ethics Quarterly*, 21(3), 97–124.
- Hasanen, L., Hellgren, J., & Hansson, M. (2011). Goal setting and plant closure: When bad things turn good. *Economic and Industrial Democracy*, 32(1), 135–156.
- Helper, S., & Henderson, R. (2014). Management practices, relational contracts, and the decline of general motors. *Journal of Economic Perspectives*, 28(1), 49–72.
- Helper, S., Keith, D.R., and Stevens, M. (2020). Call for papers: Special issue of the *Journal of Operations Management* on mobility, climate change, and economic inequality.
- Hill, J. A., Eckerd, S., Wilson, D., & Greer, B. (2009). The effect of unethical behavior on trust in a buyer–supplier relationship: The mediating role of psychological contract violation. *Journal of Operations Management*, 27(4), 281–293.
- Ho, V. T., & Astakhova, M. N. (2017). Disentangling passion and engagement: An examination of how and when passionate employees become engaged ones. *Human Relations*, 71, 0018726717731505.
- Hummels, H., & Leede, J. (2000). Teamwork and morality: Comparing lean production and socio technology. *Journal of Business Ethics*, 26, 75–88.
- James, R. (2019). The Toyota way or the unions' way? Examining the nexus between lean and unions in Toyota Australia. *The International Journal of Human Resource Management*, 32, 1273–1311. <https://doi.org/10.1080/09585192.2018.1513413>
- Jones, R., Latham, J., & Betta, M. (2013). Creating the illusion of employee empowerment: Lean production in the international automobile industry. *The International Journal of Human Resource Management*, 24, 1629–1645.
- Jones, T. M., Harrison, J. S., & Felps, W. (2018). How applying instrumental stakeholder theory can provide sustainable competitive advantage. *Academy of Management Review*, 43(3), 371–391.
- Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, 32(5), 232–240.
- Lee, M. T., & Ermann, M. D. (1999). Pinto “madness” as a flawed landmark narrative: An organizational and network analysis. *Social Problems*, 46(1), 30–47.
- Levinson, H., Price, C., Munden, K., Mandl, H., & Solley, C. (1962). *Men, management, and mental health*. Harvard University Press.
- Liker, J., & Meier, D. (2007). *Toyota talent*. McGraw-Hill.
- Liker, J. K., & Convis, G. L. (2012). *Toyota way to lean leadership: Achieving and sustaining excellence through leadership development*. McGraw-Hill Education.
- Liker, J. K., & Hoseus, M. (2010). Human resource development in Toyota culture. *International Journal of Human Resources Development and Management*, 10(1), 34–50.
- Lodahl, T. M., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology*, 49 (February), 24–33.
- MacCormick, J. S., & Parker, S. K. (2010). A multiple climates approach to understanding business unit effectiveness. *Human Relations*, 63(11), 1771–1806.

- Marks, M. L., & Vansteenkiste, R. (2008). Preparing for organizational death: Proactive HR engagement in an organizational transition. *Human Resource Management, 47*(4), 809–827.
- Martin, A. J. (2005). The role of positive psychology in enhancing satisfaction, motivation, and productivity in the workplace. *Journal of Organizational Behavior Management, 24*(1–2), 113–133.
- McDermott, A. M., Conway, E., Rousseau, D. M., & Flood, P. C. (2013). Promoting effective psychological contracts through leadership: The missing link between HR strategy and performance. *Human Resource Management, 52*(2), 289–310.
- Meuer, J. (2017). Exploring the complementarities within high-performance work systems: A set-theoretic analysis of UK firms. *Human Resource Management, 56*(4), 651–672.
- Mishra, A. K., & Mishra, K. E. (1994). The role of mutual trust in effective downsizing strategies. *Human Resource Management, 33*(2), 261–279.
- Mishra, K. E., Spreitzer, G. M., & Mishra, A. K. (1998). Preserving employee morale during downsizing. *Sloan Management Review, 39*(2), 83.
- Monden, Y. (1983). *Toyota production system. Industrial engineering and management press*. Institute of Industrial Engineers.
- Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review, 22*(1), 22B–256B.
- Murphy, M., & Murphy, E. (1996). Cutting healthcare costs through workforce reductions. *Healthcare Financial Management, 50*(7), 64–69.
- Orvis, K. A., Dudley, N. M., & Cortina, J. M. (2008). Conscientiousness and reactions to psychological contract breach: A longitudinal field study. *Journal of Applied Psychology, 93*(5), 1183–1193.
- Parker, M., & Slaughter, J. (1988). Management by stress. *Technology Review, 91*, 36–44.
- Paullay, I. M., Alliger, G. M., & Stone-Romero, E. F. (1994). Construct validation of two instruments designed to measure job involvement and work centrality. *Journal of Applied Psychology, 79*(2), 224–228.
- Phillips, N., Lawrence, T. B., & Hardy, C. (2004). Discourse and institutions. *Academy of Management Review, 29*, 635–652.
- Phillips, R. A. (2003). *Stakeholder theory and organizational ethics*. Berrett-Koehler Publishers.
- Raja, U., Johns, G., & Ntalianis, F. (2004). The impact of personality on psychological contracts. *Academy of Management Journal, 47*, 350–367.
- Richbell, S. M., & Watts, H. D. (2000). Plant closures in multiplant manufacturing firms: Adding an international perspective. *Management Decision, 38*(2), 80–89.
- Robinson, S. L., Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of management Journal, 37*(1), 137–152.
- Robinson, S. L., & Morrison, E. W. (2000). The development of psychological contract breach and violation: A longitudinal study. *Journal of Organizational Behavior, 21*, 525–546.
- Rousseau, D. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Sage Publications.
- Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal, 21*, 21–139.
- Rousseau, D. M., & Greller, M. M. (1994). Human resource practices: Administrative contract makers. *Human Resource Management, 33*, 385–401.
- Samson, D., Foley, P., Gan, H. S., & Gloet, M. (2018). Multi-stakeholder decision theory. *Annals of Operations Research, 268*, 357–386.
- Shockley, J., Collignon, P., & Liu, X. (2020). Why do so many good assembly plants close? Toward a new plant stakeholder and total lifecycle management strategy. *Rutgers Business Review, 5*(1), 61–83.
- Sims, R. R. (1994). Human resource management's role in clarifying the new psychological contract. *Human Resource Management, 33*, 373–382.
- Sloan, J. (2014, February 12). *Lies, damn lies and car subsidy statistics*. *The Australian*.
- Stengard, J., Bernhard-Oettel, C., Naswall, K., Ishall, L., & Berntson, E. (2015). Understanding the determinants of well-being and organizational attitudes during a plant closure: A Swedish case study. *Economic and Industrial Democracy, 36*(4), 611–631.
- Stoner, J. S., & Gallagher, V. C. (2010). Who cares? The role of job involvement in psychological contract violation. *Journal of Applied Social Psychology, 40*(6), 1490–1514.
- Sutton, R. I. (1987). The process of organizational death: Disbanding and reconnecting. *Administrative Science Quarterly, 32*, 542–569.
- Touboulic, A., McCarthy, L., & Matthews, L. (2020). Re-imagining supply chain challenges through critical engaged research. *Journal of Supply Chain Management, 56*(2), 36–51.
- Touboulic, A., & Walker, H. (2016). A relational, transformative, and engaged approach to sustainable supply chain management: The potential of action research. *Human Relations, 69*, 301–343.
- Tucker, A. L., & Singer, S. J. (2015). The effectiveness of management-by-walking-around: A randomized field study. *Production and Operations Management, 24*(2), 253–271.
- Verity, F., & Jolley, G. (2008). Closure of an automotive plant: Transformation of a work-based 'community'. *Policy Studies, 29*(3), 331–341.
- Womack, J. P., & Jones, D. T. (1996). Beyond Toyota: How to root out waste and pursue perfection. *Harvard Business Review, 74*(5), 140–172.
- Womack, J. P., Jones, D. T., & Roos, D. (1990). *The machine that changed the world*. Harper Collins Publishers.
- Yoder, D., & Staudohar, P. D. (1985). Management and public policy in plant closure. *Sloan Management Review, 26*(4), 45.
- Zhang, M., Atwal, G., & Kaiser, M. (2021). Corporate social responsibility and stakeholder ecosystems: The case of Volkswagen dieselgate scandal. *Strategic Change, 30*(1), 79–85.
- Zhao, H. A. O., Wayne, S. J., Glibkowski, B. C., & Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: A meta-analysis. *Personnel Psychology, 60*(3), 647–680.

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