

Business is War: Military Literature and Strategic Management's Future

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Abstract

Orthodox theorists often unwittingly invoke military language when writing about business-related phenomena. For example, in the world of commerce, the definition of the term strategy evokes competition between enemies: it can lead to victory or defeat. While most scholars agree that business literature from the 20th century borrows concepts from the military, there has been little attempt to appreciate the extent to which business literature of the digital age is influenced by military parlance and theorizing. This paper has two objectives. First, it demonstrates that the military and business literatures have somewhat similar historical trajectories and discontinuities. The second objective is to provide three lessons from military philosophers for those speculating about managerial issues in the digital era. Awareness of the relationship between business and military language can provide managers with a new perspective with which to view the challenges of the digital age.

Introduction

Business literature, especially content published in the second half of the 20th century, often invokes military and war metaphors. Relatedly, management scholars frequently use military literature as a starting point for creating working definitions of such terms as strategy,^{1,2} resources, resource planning,³ and positioning.⁴ As a result of this curious connection, much contemporary writing about management is peppered with somewhat hostile

parlance. For example, authors typically discuss industries as existing within a zero-sum arena,^{5,6} the idea being that advantage gained by one firm comes at the expense of what a competitor must be compelled to forfeit.^{7,8} Implicitly, the analogy being drawn here establishes a correspondence between, say, market share and conquered territory.⁹ Such an analogy is often further extended. Specifically, a saturated market (one that is unable to grow in size) can be compared to an island (as opposed to an unending landmass), on which rival warlords each seek to annex the same terrain.^{6,10} Another business-related idea which emanates from conjecture about hostile confrontation concerns when and where to attack. The Chinese general and military philosopher Sun Tzu, in 500 B.C., counselled that taking-on an opponent who is already well ensconced is best avoided, particularly in circumstances where it is possible to achieve expansionist and enrichment objectives without direct confrontation.⁹ In 1979, Michael Porter, with his conception of generic strategy, said essentially the same thing when he noted that it is generally unwise to attempt to draw customers away from a competitor when there still exist those who have never used an industry's offering.¹¹ A third war metaphor which applies to business is activated when direct confrontation becomes unavoidable. If, for example, market share must be stolen, the more hardcore notions of strategy are activated. In this vein, as a senior military officer must draw-up a battle plan, so to a senior manager faced with the prospect of direct confrontation must have a formalized set of specific actions that are associated with relevant objectives.¹² Indeed, as a matter of orthodoxy, the more pure instantiations of business (or corporate) strategy are maximally relevant when one is faced with hostile competition. Such instantiations describe how prescribed means (resources) will achieve desirable ends (goals).^{1,2,12}

With the arrival of the digital age, and the possibilities afforded by e-commerce, the scope and focus of management literature changed substantially. Some commentators have interpreted this shift in emphasis as a rupture^{13,14,15,16} and indicate that consequential scholarship addressing management is demarcated on the basis of whether or not it was created before the arrival of the Internet as a public utility in 1995.¹³ As such, it is the case now that, at least for most digital era sectors, much industrial age conjecture concerning how to do management is no longer fit for purpose. To address this malaise, scholars have either attempted to create genuinely new theory or update that which is antiquated. For example, insofar as updating is concerned, Gould & Desjardins have proposed that the two axes of Michael Porter's strategy grid, type of customer and type of advantage, (which define four quadrants of generic strategy option) be augmented by a third axis (complexity – high and low), creating eight archetypal

approaches.¹⁶ Porter's Competitive Advantage framework is not the only conceptualization being revisited. Thakur and Workman¹⁷ adapted the original Henderson Portfolio growth–share matrix to create a model which embraces distinctively digital age variables such as customer relationship management (CRM).¹⁸ Furthermore, to cope with e-commerce's challenges, some scholars have mixed and matched pre-Internet management theories. For example, Khajezadeh and al.,¹⁹ in their effort to wrestle with making sense of the strategy orientations of key players in the hygiene industry, have merged the Boston Consulting Group and the Ansoff Matrices to produce a new framework. This kind of experimentation with theoretical refurbishment draws attention to a larger point: the digital age has rendered defunct much 20th century scholarship concerning management and corporate strategy. As such, stepwise advance in technology has left practitioners in a position where a large part of their go-to literature is outdated and of little use.^{20,21}

In this paper we argue that, to update and revise theory about management that was developed for the industrial age, scholars can find inspiration in military literature and conjecture about how to wage war. It is not only the case that key tenets of such philosophy have been largely imported into the world of governance and stewardship of private capital, but military and business histories have compelling parallels. For example, in each case, technological advance has – at key moments – created state-changes such that one era ends, and another begins. Our analysis of how military literature can inform business provides insight into the challenges faced by modern managers and hopefully will assist theoreticians who are charged with providing relevant conceptual frameworks.

A Brief History of War

For more than two millennia, military historians have documented battles and conquests and sought to delineate what works in matters of warcraft. This history has mostly been written by victors however there are cases (which often provide especially compelling insight) where the vanquished have also provided accounts. For example, Heinz Guderian, pioneer of mobile warfare and architect of the German Blitzkrieg, was pummelled by Russian forces on the Eastern front during Operation Typhoon in 1941. He was unable to conquer Moscow and, largely for this reason, was deemed by the Fuhrer to have been a failure and unceremoniously dispatched the year after from the eastern front. He authored *Panzer Leader* wherein he laid out a blueprint for how to deploy tanks and heavy artillery on a battlefield. In a general sense, of those who have reflected on their exploits, musings can mostly be classified as being either accounts of generic best practice or those invoking notions of

contingency (which invariably provide description of how to adapt as circumstances change).

Best practice accounts of warcraft typically give the reader a sense of what will always result in victory. Historical figures who have contributed to this corpus include Julius Caesar,^{22,23} Nicolas Machiavelli,²⁴ and Erich Ludendorff.^{25,26} Irrespective of whether their sympathy laid with the winning or losing side of a campaign, these philosophers provided exposition of what went right or wrong in the confrontations they analyzed. In their accounts, prescriptions were pragmatic and emphasized what leaders did that worked (and didn't work). The writings from this genre have a distinctively upbeat narrative; they embolden a reader to enter into any and all hostile confrontation with confidence.^{25,27}

Contingency-based accounts of what to do in circumstances of military conflict inspire less confidence than those of best practice. Such philosophies require, in the first instance, that a battlefield leader make judgements about the state of consequential variables before committing to a course of action. For example, the commander must assess where an enemy is in terms of both its orientation (in front, to the side, or behind, or some combination) and distance (far away versus close, etc.). They further must make judgements about elements such as an enemy's disposition (e.g., what is it prepared to do if so allowed?) and its relative force (e.g., overwhelming, equivalent, or inferior). Much decision making about these matters is often speculative because it is based on incomplete data and faulty assumptions. Whatever the case, contingency views of military conflict inevitably are about classical conceptions of strategy. They take the form of, if X, then Y (where X is an assessment of relevant circumstances, and Y is a set of actions). They presuppose that each campaign is unique and that, even when a single skirmish is the object of analytic interest, opponents will necessarily pursue different courses of action. Authors whose writings are unambiguously of this kind include Sun Tzu,⁹ Carl Von Clausewitz,²⁷ Charles de Gaulle,²⁸ and Liddell Hart.²⁹ In some instances, there is overlap between best practice and contingency-based accounts of warcraft. For example, in key respects, Clausewitz and Charles de Gaulle write as circumstantialists, however both consider, in a universal sense, that qualities such as intelligence and well-honed instinct are indispensable in a military officer.^{27,28}

Waging War and Doing Business: Curious Parallels

In the 20th century, literature about how to manage private capital has had conspicuous similarity with several thousand years of musings addressing how to manage military-type conflict. Insofar as management scholarship is concerned, one way to view the modern situation is to conceive

of it as being (roughly speaking) either concerned with profit maximization, in a narrow sense, or competitive positioning, in a broader sense.³⁰ For example, well-known writers (and thinkers) focusing on the profit problem included the likes of Frederick Taylor, Henry Ford, Henri Fayol and Frank and Lillian Gilbreth. These authors, perhaps partly because of the time they lived, wrote as though they were advising capitalists with pre-existing monopolistic control.³¹ Their views – often explicitly presented as being about how to achieve efficiency – were actually addressing generic notions of “best practice.”^{32,33,34} Indeed, if ever one needed evidence that theorists from the classical age of management were concerned with creating a universal blueprint, one need only consider the axiom “the one best way,”³⁵ probably the era’s most archetypal expression.

The idea that there is a best practice *nirvana* for business profit maximization survived into the years of the second World War and beyond.³⁶ Indeed, when allied powers were in conflict in Europe (and later in the Pacific), Western governments were forging pragmatic partnerships with universities and research institutions, often in an effort to discover the universal in matters of governance and stewardship. These initiatives played a central role in post-war recovery and in sustaining the ensuing economic long boom.³⁷

As previously co-opted industries in the Western world transitioned away from being used for military purposes, cross-jurisdictional trading activity, especially within North America and Europe, also increased. It is in this period that multinational enterprises – firms that have operating divisions in more than one country – emerged for the first time.^{4,38} Such entities were mostly American, leading authors such as Mares to describe the era as that of American corporate hegemony.³⁹ The axiom that “bigger is better,” perhaps incidentally, substituted for more nuanced strategy consideration.⁴⁰ In a nutshell, under the influence of early- and mid- 20th century best practice, the owners of capital could be assured a decent return without having to reflect on the influence of competitors.

Insofar as competitive positioning is concerned, the strategy revolution began in a fledgling way in the 1950s and reached a zenith at some point in the 1980s. A large part of the impetus for growth in this corpus of literature was the fact that, during the latter part of the 20th century in the Western world, key product markets were becoming saturated. In such circumstances, notions of marketing and nuanced customer preference take on special import. By the same token, when dealing with saturated markets, competitor firms must be managed or, in some way, dealt with. As such, the instantiation of modern strategy – at least from a historical perspective – can be interpreted as a response to an exhaustion of available customers and

insufficient influx of new buyers within Western economies in the second half of the 20th century.⁴¹ In these constrained circumstances, a profitable entity expropriates its surpluses in an increasingly zero-sum context.

Reflection on the development of management thought during the 20th century would be inadequate without consideration of Japan's economic rise following its devastation when allied forces ended the war through dropping atomic bombs on the cities of Hiroshima and Nagasaki. For historians, the pressing question about the Rising Sun Empire's recovery in the 1950s is, how did it occur so quickly? It appears that, courtesy of theorists such as Deming,⁴² Japan's reborn industries were able to rapidly overcome an image that they produce items of inferior quality through instituting distinctive production techniques such as lean manufacturing and statistical process control.⁴³ For American electronics and auto manufacturers (in particular), Japanese industry in the 1950s and 1960s, was coming up with more clever solutions. Japan was also emerging as an aggressive export nation; in many cases, cutting into domestic (Western) market share.⁴²

With the rise of Japan in the 1950s and the *Asian tiger* economies of South Korea, Singapore, and Malaysia in the 1960s and 1970s, conjecture about how to manage was becoming synonymous with conjecture about how to manage competitors – in short, about more hardcore strategy. The issue at hand was: what needs to be done to enhance firm-based competitive positioning within a multi-entity context. Such a focus unambiguously establishes the object of analysis as an industry; a group of firms (configured nationally or internationally) which each produce, as their principal output, the same or a substantially similar kind of offering.^{44,45} In such a milieu, the role of strategy is to provide enhanced “relative” performance, with the key term here being “relative.” It is at this point in post-industrial revolution history when the war metaphor has special explanatory import. Specifically, “relative” improvement becomes salient when a market is saturated and/or not expanding and the most obvious way to enhance one's own prosperity is through attacking rivals. Because shareholders require a long-run return on their investment, in the absence of an expanding customer base – and assuming minimal offering innovation, etc. – the idea of “attacking rivals” roughly corresponds to expropriating customers.^{6,10} With such a view in mind, multiple late industrial age paradigms for conceiving generic strategy options were proposed.⁴⁵ A notable contribution to this corpus is from Porter who provided an early generic blueprint. A key tenet of Porter's conception is that strategy orientation can only be derived following consideration of an industry-wide analysis.¹¹

From the Industrial to the Digital Age: Three Lessons that Military Philosophers have to Teach Modern Management Scholars

Following the advent and early development of firearms, for a time war was still being waged in such a way that manpower determined might. In a nutshell, an army equipped with basic weaponry grows in strength as a function of the number of soldiers it has in its ranks. However, in the nuclear age, the nexus between size and formidableness was largely broken.⁴⁶ Atomic fission results in instant massive destruction and, as was made devastating clear in the cases of Hiroshima and Nagasaki, can be brought about with individual warheads deployed by eight men crewing a B-29 Superfortress bomber.⁴⁷ In the wake of the Manhattan Project, 23 sovereign jurisdictions have acquired nuclear weapons and/or a nuclear attack capability.⁴⁸ Since 1945, these weapons have not been aggressively deployed. One Cold War theory about why there has been such reticence is given concisely using the acronym MAD (Mutually Assured Destruction).

Whilst not in any consequential sense dangerous (a point that probably needs to be made when comparing it to atomic warfare), the Internet – when it became a publicly available utility in 1995 – rendered obsolete much prevailing management literature and, at the same time, radically changed conceptions of economic power.⁴⁹ For example, it placed the likes of Mark Zuckerberg (the undergraduate kid with a laptop in his Harvard dorm room) in a position where he could – with hardly any sweat – virtually overnight achieve global economic dominance. In earlier generations, equivalent-type legendary industrialists may have had vision but almost invariably had to match ingenuity with years of hard work. The Internet is a manifestation of a new era because it acts as a platform for the organic – and rapid – proliferation of myriad other technologies. It has influenced certain approaches becoming redundant, the fusion of approaches and the blurring of boundaries between physical, digital, and biological spheres.⁵⁰ Insofar as trading and commerce are concerned, analysis of the Internet’s potential cannot be divorced from notions of a so-called new economy that, according to Castells is informative, global and networked.⁵¹

The tendency of scholars in the digital age has unambiguously been to give managers a wider repertoire of generic decision-making options. However, in the same way that having a bigger restaurant menu does not mean one is going to end-up eating better, having more strategic choice is not necessarily beneficial.⁵² Indeed, expanded opportunity can lead to the malaise of information overload.⁵³

What follows is an account of what management scholars can learn from military philosophers. The advice emerges from the idea that, in much the same way as the nuclear age has created disconnect between manpower and

destructive potential, the Internet has further pushed disjuncture between the size of a labor force and economic power. Three lessons are germane.

Lesson 1: Don't Fight Battles Yourself – Use Mercenaries

Following the Second World War, nations with large and well-developed military capability have been disinclined to take lead roles in either initiating or participating in full-scale war. Certainly, evenly matched superpowers don't attack each other. As such, where hostile intervention does occur, it is typically carried out collaboratively – and mostly in circumstances where less powerful forces have lead role status. In the post-World War Two world, the destructive consequences of military action are almost never seen within the sovereign jurisdictions of large Western nations.⁵⁴ Rather, nation-level animosity is typically resolved in far-flung locations, using proxies, and under the guise of helping locals.⁵⁴ Relevant examples of these kinds of clashes can be seen in the cases of the Korean (1950-1953), Vietnam (1955-1975), Afghanistan Wars (1979-1989) and the Cuban Missile Crisis (1962).

The tendency to displace military aggression through making other parties its key agents has a parallel in the way digital age industries compete. The Canadian telecommunications sector is a case in point. Specifically, the “Big Three” (Bell Canada, Telus, and Rogers Communications) were conventional rivals prior to the rise of smartphones. Competition was not especially fierce (with different firms being dominant in particular provinces). To the extent that it (competition) occurred, it centered mostly on price and costing methodology.¹⁶ When the Canadian telecommunications sector was deregulated, smaller entities entered the arena as purveyors of smartphone-related services (e.g., Freedom Mobile, formerly named Wind Mobile). In response, the “Big Three” created minion firms to take-on recent entrants. They, themselves, mostly avoided becoming sullied. Rather, to do their bidding, Rogers co-opted Fido, Bell co-opted Virgin, and Telus co-opted Koodo.

The tendency to avoid direct confrontation and/or transform hostility manifests in ways other than through using proxies. For example, much as modern military commanders have mastered the art of putting on a show-fight (e.g., the first Gulf war in which Saddam Hussein's Baathist forces were compelled, in a televised spectacle, to withdraw from Kuwait), rival firms may look like they are competing, when in fact they are not. A curious contemporary case of this latter situation is the Costco/Walmart comparison.⁵⁵ Each of these entities provides to consumers groceries and household goods. Each ostensibly invokes a strategy of, what Michael Porter would identify as, low-cost leadership.⁵⁶ However, these firms are not locked in competition in any meaningful sense. Their customer bases are different

and, the way each achieves cost curtailment, is dissimilar. Whatever the case, industrial age theory about strategy *à la* Porter, is largely unable to reconcile the Costco/Walmart comparison and it is here argued that conjecture about military conflict is more explanatory.⁵⁶

Lesson 2: Intelligence Gathering and Reconnaissance Come Before Hostile Confrontation

Nuclear weapons have potential to indiscriminately kill up to tens of millions of people instantly. The economist might say that a nuclear bomb is expensive but value for money because it creates “scale.” As such, when it is deployed, it does its work at low per-unit cost. Furthermore, nuclear weapons are universally feared and, largely for this reason, have not been used in anger since the Second World War. For these two related reasons – destructive efficiency and universal annihilation potential – coercion and curtailment of enemies in the nuclear age has largely been about learning more about them. Indeed, it is really in the nuclear era that notions of military intelligence have come of age.⁵⁷ In the modern world of warfare, resources that could be directed towards procuring conventional (or higher end) weaponry are often redirected to such activities as satellite and drone-based surveillance and, monitoring and spyware systems (including use of cameras and imaging technology).⁵⁸ However, such “front-end” gadgetry are only ever precursor elements because amassed data on an adversary must be analyzed. It is in analysis that much modern military investment is made.⁵⁸ Specifically, as of 2019, the CIA budget in the United States was 5 billion dollars – the bulk of this expenditure being directed towards data interpretation of one kind or another.

The relevance of data is as important to the modern management strategist as it is to the modern warlord, and to warmongers of the past. For example, Amazon and eBay, both digital marketplaces, have each used notions of data-based decision making to turn themselves into global giants.⁵⁹ Indeed, each concerns itself at least as much with profiling customers as it does with selling and dispatching products.⁶⁰ For example, Amazon’s patented anticipatory shipping model uses big data for predicting products likely to be purchased, and when and where such offerings will be needed.⁶¹ This kind of approach has also been largely embraced by industrial age industries which have adapted themselves for digital era conditions.⁶⁰ For instance, McDonald’s, often viewed as an exemplar of 20th century commercial success,⁶² has unveiled a digital strategy centered on data gathering and artificial intelligence.⁶³ Its goal is to create predictive selling through profiling customers who use the McDonald’s loyalty app. Generally, these kinds of approaches seem to be working.⁶⁴ Indeed, there is evidence

that industrial age firms that do not learn from their digital age counterparts are inclined to lose market share.⁶⁵ Such misfortune has been the epitaph for companies such as Sears Canada, which was a behemoth in the 20th century's retail sector, mainly because of its mail-in service via a catalogue. Sears Canada filed for bankruptcy at the beginning of 2018. It appears that its lack of commitment to data gathering and its failure to establish a robust online presence were consequential in its demise.⁶⁶ Perhaps the final word on the importance of data gathering in the contemporary commercial world belongs to Napier et al. They say that firms should invest in creating modern, digital centric competitive advantage "that can leverage data and machine learning to create valuable insights, intelligence, and capabilities across the organization."⁶⁶

Lesson 3: Don't Let the Enemy Know Your Motives or What You are Willing to Do

Data – even if in the form of information – is not necessarily actionable. One reason for this is that, at least under certain conditions, it is possible to have too much of a good thing, an insight known to both military and business decision makers (at least the battle hardened ones).⁶⁷ In a nutshell, beyond a certain point, additional data becomes of diminishing marginal utility. At this point, dysfunctional forms of complexity are liable to hinder effective decision making.

Complexity theory has a long history and various instantiations. Insofar as business strategy is concerned, in the digital age, John Stuart Mill's⁶⁸ conception of the construct has been passed down through the work of scholars such as Herbert Simon who defined it as "a large number of parts that interact in a non-simple way."⁶⁹ Relatedly, Simon noted that a consequence of heightened complexity is more interdependent elements which increase coordination requirements and raise a system's total number of interfaces.⁶⁹ While not necessarily explicitly discussed in literature (although becoming more so), being complex (broadly conceived) – whether it be present in the context of a battle or a business scenario – increases a protagonist's opportunity to be duplicitous and/or deceptive.^{66,70}

As is typically the case in organizational life, the complexity of armies and fighting forces increased greatly in the 20th century, at least as assessed according to Simon's definition. Moreover, since 1945, outside of the organizational arena, such things as ballistics technology have evolved at roughly the same pace as advance in consumer electronic goods. There are, perhaps self-evidently, budgetary and resources implications of such increasing sophistication. Specifically, at the end of the millennia, the U.S. army employed more than 1.9 million people, and had an annual budget of

more than \$700 billion.⁷¹ At this time, the orthodoxy was that military commanders should be committed to identifying and planning for myriad types of conflict. Knowingly or not, they had made their organizations unprecedentedly complex. However, in 1999, under the influence of at least one high-ranking officer, Douglas MacGregor, a decision was taken that it is folly to attempt to be prepared for all contingencies and moves were made to diminish administrative overhead and remove layers of hierarchy.⁷¹ MacGregor's axiom was: "defeat in battle is not the result of the failure to plan for every possible contingency, but rather, an organization's ability to understand changing battlefield conditions and quickly evolve to face those challenges successfully."⁷¹ The message was that less data and more data interpretation would be the way forward and it is desirable to replace mechanistic with organic organizational structures so that adaptability and agility can be prioritized over sheer brute force. Nygren took up this agenda when he argued that armies should create networks, establish alliances with civilian institutions, and strike a balance between organizational complexity and flexibility.⁷²

Notwithstanding MacGregor's iconoclastic instincts, armies that have complex organizational structures may have some advantages over those that don't. Indeed, to the extent that complex organizations are the repositories of complex technology, there may in fact be a paradoxical link between complexity and flexibility/adaptability. A case in point concerns the way Russia and China reorientated their arsenals following the end of the Cold War. These great powers, at least according to Johnson, were able to quickly reconfigure their military infrastructure (including its hardware and software elements) to change longstanding battle lines based on a global east/west divide.⁷³ As such, they positioned themselves for likely 21st century-type threats, including those that may come from cyber or biological attack. Moreover, they also placed themselves in a position where their systems and protocols now allow for external threats (actual or anticipated) to not necessarily be classified as acts of aggression or attack activity.

The impact of organizational complexity has been an object of scholarly interest for strategic management theorists.⁷⁴ As noted, in the wake of Simon's contribution, the construct is often viewed as an aggregate measure of how many interactions between sub-entities occur within a larger circumscribed organization plus how many occur between the organization itself and external elements.^{75,76} In practical terms, complexity levels provide an index of likely resourcing needed for a division, project, or team. When modern scholars write about this phenomenon, they are typically skeptical. Most of their counsel is directed towards assisting executives reduce organizational complexity – or, at least, ensure that it is appropriately aligned

with corporate objectives. In this vein, Egelhoff notes that relevant conceptual frameworks have been devised to assist firms become simultaneously more agile and proactive.⁷⁶ Such a concern with agility and anticipation is perhaps most obvious in the domains of supply chain management, logistics, and organizational procurement. In these areas, often under the guise of lean production and just-in-time (JIT) inventory management, the principle, “the leaner, the better,” is approximately tantamount to an axiom of de-complexification.⁷⁶ According to Perona and Miragliotta, much of this philosophy also drives initiatives concerned with streamlining a suite of products being offered (i.e. reducing the size of a product range), having simple-to-use support platforms, and modern mass customization efforts.⁷⁷

Organizational complexity has also been studied from a marketing perspective. The construct has been found to have implications for conceptions of customer-type within digital age industries, in particular. For example, Petruzzellis reminds firm decision makers that they will be successful when value-added offerings are well-aligned with the identified needs of distinct market segments.⁷⁸ His categories implicitly establish the vendor as responsible for ensuring customer satisfaction with key aspects of an offering, including its cost and usability. This same principle is embodied in Kasper et al.’s counsel, based on a study which reveals that certain customers are more comfortable than others with complexity.⁷⁹ The strategic implications of this kind of research are that, where possible, managers should be cultural change agents. Specifically, in the modern era, one of their crucial roles is to make customers more technically at ease and simultaneously placed them in a position where organizational (but not necessarily technical) complexity is kept under control. In this regard, firms such as Apple sell technically complex devices but strive to have easy and straightforward customer-interface protocols.

Insofar as complexity is concerned – be it of an organizational or technical nature – military historians have something to teach modern business scholars. The lesson is as follows: provide offerings, and ways of interacting with clients, that appear straightforward but, in fact, have complex costing methodologies. The point here is that a digital age firm may have its greatest chance of profit maximization when customers misanalyse their needs and thus have to pay more for an utility being offered.⁸⁰ Recently, such a view of the value of new forms of deception (what we call here – borrowing from military parlance – “strategic deception”) have entered into management literature. Indeed, the missive is present in contemporary accounts of the telecommunications,¹⁶ aviation,⁸¹ finance,⁸² and real estate industries.⁷ For example, in the Canadian telecommunication sector, Gould and Desjardins

have concluded that Bell and Rogers, both dominant incumbents, have intentionally embraced complex pricing structures for their offerings.⁸⁰ According to their focus group findings with vendors, this tactic enables employers to increase their sales revenues through confusing consumers, encouraging them to enroll in monthly plans that will inevitably need to be adjusted (i.e., become more expensive). Curiously, such an approach was not found to be consistent across the industry, for example it was not detected for the firms Videotron and Koodo. This industry-based differential is evidence for Gould and Desjardins other argument, that complexity (greater versus less depending on a sector's structure) is a strategy dimension (and thus varies from firm to firm).¹⁶

Conclusion

This article has made the case that those who comment on military adventurism have something to teach modern management scholars. In the case of the military, the nuclear age has created a new era. In a nutshell, it has placed civilization (for the first time in history) in a position where might does not come as a function of manpower. Similarly, the Internet (and all that comes with it) creates disconnect between conventional measures of economic size and ultimate measures of economic clout. One consequence of the Internet – particularly, of e-commerce – is the emergence of distinctively digital age industries. For entities operating within these sectors, 20th century theory concerning competitive strategy, *à la* Porter's generic grid, etc., is somewhat outmoded. Indeed, scholarship addressing how to compete in a multi-firm arena was mostly developed for the industrial age.

Doing business and waging war have unsettling parallels. In each case, there are opponents, there is propaganda, there are the spoils of victory and there is the humiliation and pain that comes with defeat. It is strategy (in the hardcore sense) that coordinates collective action in the modern boardroom as well as on battlefields. In this article we have provided three lessons from the military arena that have a special resonance for those struggling with how to manage private capital – and competitors. Mostly, no one gets killed or seriously injured when engaging in modern business. However, the world of commerce is littered with psychological and economic casualties – perhaps something that, although unpalatable, makes the analogy of war all too relevant.

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Endnotes

1. Chaffee, E. E. (1985). Three models of strategy. *Academy of Management Review*, 10(1), 89-98.
2. Mintzberg, H. (1987). The strategy concept I: Five Ps for strategy. *California Management Review*, 30(1), 11-24.
3. Bchini, B., Hamdi, B., & Hikkerova, L. (2016). L'impact des stratégies génériques sur les pratiques de gestion des ressources humaines. *Gestion 2000*, 34(5), 75.
4. Heller, V. L., Tablada, D. M., & Darling, J. R. (2009). Positioning a firm's initial market offering: A strategic application of a consumer-oriented model. *European Business Review*, 21(6), 516-530.
5. Meegan, D. V. (2010). Zero-sum bias: Perceived competition despite unlimited resources. *Frontiers in Psychology*, 1, 191.

6. Zhu, J.-H. (1992). Issue competition and attention distraction: A zero-sum theory of agenda-setting. *Journalism & Mass Communication Quarterly*, 69(4), 825-836.
7. Alfaraj, Q. (2019). Attaining and sustaining competitive advantage in Dubai's real estate industry. *Walden Dissertations and Doctoral Studies*.
8. Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
9. Tzu, S. (2017). *L'Art de la Guerre*. Paris: North Star Ed.
10. Henderson, B. D. (1983). The anatomy of competition. *Journal of Marketing*, 47(2), 7-11.
11. Porter, M. E. (1980). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 25-40.
12. Grattan, R. (2002). *The strategy process: A military-business comparison*. U.K.: Palgrave Macmillan.
13. Berners-Lee, T. (2000). *Weaving the web: The original design and ultimate destiny of the World Wide Web*. New York, NY: HarperCollins Publishers.
14. Aguiar, L. (2017). Let the music play? Free streaming and its effects on digital music consumption. *Information Economics and Policy*, 41, 1-14.
15. Briones, R. L., Kuch, B., Liu, B. F., & Jin, Y. (2011). Keeping up with the digital age: How the American Red Cross uses social media to build relationships. *Public Relations Review*, 37(1), 37-43.
16. Gould, A. M., & Desjardins, G. (2015). A spring-clean of Michael Porter's attic: The Canadian telecommunications sector as an exemplar of refurbished generic strategy. *Competitiveness Review*, 25(3), 310-323.
17. Thakur, R., & Workman, L. (2016). Customer portfolio management (CPM) for improved customer relationship management (CRM): Are your customers platinum, gold, silver, or bronze? *Journal of Business Research*, 69(10), 4095-4102.
18. Seeger, J. A. (1984). Research note and communication. Reversing the images of BCG's growth/share matrix. *Strategic Management Journal*, 5(1), 93-97.
19. Khajezadeh, M., Niasar, M. S. F., Asli, S. A., Davari, D. D., Godarzi, M., & Asgari, Y. (2019). Application of neural network in portfolio product companies: Integration of Boston Consulting Group matrix and Ansoff matrix. *International Journal of Economics and Management Engineering*, 13(6), 809-813.
20. Bartunek, J. M., & Rynes, S. L. (2010). The construction and contributions of "implications for practice": What's in them and what might they offer? *Academy of Management Learning & Education*, 9(1), 100-117.
21. Pearce, J. L., & Huang, L. (2012). The Decreasing Value of Our Research to Management Education. *Academy of Management Learning & Education*, 11(2), 247-262.
22. Caesar, J. (2016). *The Gallic Wars* (T. Holmes, Trans.). Los Angeles, CA: CreateSpace Independent Publishing Platform.
23. History, C. (2019). *The Gallic Wars: A captivating guide to the military campaigns that expanded the Roman Republic and helped Julius Caesar transform Rome into the greatest empire of the ancient world*. CH Publications.
24. Machiavelli, N. (2010). *The art of war*. Pacific Publishing Studio.
25. Förster, J. (2003). Ludendorff and Hitler in perspective: The battle for the German soldier's mind, 1917-1944. *War in History*, 10(3), 321-334.
26. Ludendorff, E. (2012). *Der totale Krieg*. Berlin: ZeitReisen Verlag.
27. Clausewitz, C. von, Howard, M., Paret, P., & Heuser, B. (2006). *On war*. Oxford University Press.
28. De Gaulle, C. (1996). *Le fil de l'épée*. PLON.
29. Liddell, H. B. H. (1991). *Strategy* (2nd ed.). Plume Publishing.

30. Lambertini, L., & Rossini, G. (1998). Capital commitment and cournot competition with labour-managed and profit-maximising firms. *Australian Economic Papers*, 37(1), 14–21.
31. Littler, C. R. (1978). Understanding Taylorism. *The British Journal of Sociology*, 29(2), 185–202.
32. Waring, S. P. (2016). *Taylorism transformed: Scientific management theory since 1945*. Chapel Hill, NC: The University of North Carolina Press.
33. Boyer, R., & Durand, J.-P. (2016). *After Fordism*. Springer.
34. Jessop, B. (2005, September 27). Fordism and Post-Fordism: A critical reformulation. In A. J. Scott & M. Storper (Eds.), *Pathways to industrialization and regional development*. London: Routledge.
35. Merkle, J. A., & Riley, J. M. (1980). *Management and ideology: The legacy of the international scientific management movement*. University of California Press.
36. Conke, L. (2013). O Pensamento Estratégico no Século XX: Explicações Históricas. *Revista Ibero-Americana de Estratégia*, 12(4), 210–234.
37. Wernerfelt, B. (1995). The resource-based view of the firm: Ten years after. *Strategic Management Journal*, 16(3), 171–174.
38. David, Q., Peeters, D., Van Hamme, G., & Vandermotten, C. (2013). Is bigger better? Economic performances of European cities, 1960–2009. *Cities*, 35, 237–254.
39. Marens, R. (2010). Destroying the village to save it: Corporate social responsibility, labour relations, and the rise and fall of American hegemony. *Organization*, 17(6), 743–766.
40. Gould, A. M., & Lokrou, M. (2018). Paved with good intentions: Misdirected idealism in the lead-up to 2008's GFC. *The Economic and Labour Relations Review*, 29(4), 394–409.
41. Shah, R., & Ward, P. T. (2003). Lean manufacturing: Context, practice bundles, and performance. *Journal of Operations Management*, 21(2), 129–149.
42. Aguayo, R. (1991). *Dr. Deming: The American who taught the Japanese about quality*. New York: Simon & Schuster.
43. Chernatony, L. D., Daniels, K., & Johnson, G. (1994). Competitive positioning strategies mirroring sellers' and buyers' perceptions? *Journal of Strategic Marketing*, 2(3), 229–248.
44. Fiegenbaum, A., & Thomas, H. (1990). Strategic groups and performance: The U.S. insurance industry, 1970–84. *Strategic Management Journal*, 11(3), 197–215.
45. Amatulli, C., Caputo, T., & Guido, G. (2011). Strategic Analysis through the General Electric/McKinsey Matrix: An application to the Italian fashion industry. *International Journal of Business and Management*, 6(5), 61–75.
46. Bell, M. (2019). Nuclear opportunism: A theory of how states use nuclear weapons in international politics. *Journal of Strategic Studies*, 42(1), 3–28.
47. Avey, P. (2018). The historical rarity of foreign-deployed nuclear weapon crises. *Security Studies*, 27(1), 89–119.
48. Head, S. (2005). *The new ruthless economy: Work & power in the digital age*. Oxford University Press.
49. Schwab, K. (2017). *The fourth Industrial Revolution*. Crown Publishing Group.
50. Melewar, T. c., & Navalekar, A. (2002). Leveraging corporate identity in the digital age. *Marketing Intelligence & Planning*, 20(2), 96–103.
51. Castells, M. (2010). Globalisation, networking, urbanisation: Reflections on the spatial dynamics of the Information Age. *Urban Studies*, 47(13), 2737–2745.
52. Blair, A. M. (2010). *Too much to know: Managing scholarly information before the Modern Age*. Yale University Press.
53. Freedman, L. (2015). *Strategy: A history*. Oxford University Press.
54. Altman, D. (2018). Advancing without attacking: The strategic game around the use of force. *Security Studies*, 27(1), 58–88.

55. Ellickson, P. B. (2016). The evolution of the supermarket industry: From A & P to Walmart. In E. Basker (Ed.), *Handbook on the economics of retailing and distribution*. Edward Elgar Publishing.
56. Courtemanche, C., & Carden, A. (2014). Competing with Costco and Sam's Club: Warehouse club entry and grocery prices. *Southern Economic Journal*, 80(3), 565–585.
57. Watson, B. (2020). Intelligence. *Encyclopedia Britannica*. p. 1.
58. Ransom, H., & Pringle, R. (2015). Intelligence. *Encyclopedia Britannica*.
59. Hara, K., Adams, A., Milland, K., Savage, S., Callison-Burch, C., & Bigham, J. P. (2018). A data-driven analysis of workers' earnings on Amazon Mechanical Turk. In R. Mandryk & M. Hancock (Eds) *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. Paper presented at CHI Conference in Montreal, QC, Canada, April 21-26 (pp. 1–14). New York: Association for Computing Machinery.
60. Wang, G., & Ng, T. S. E. (2010). The impact of virtualization on network performance of Amazon EC2 data center. *2010 Proceedings IEEE INFOCOM*. Paper presented at IEEE Annual Joint Conference: INFOCOM, IEEE Computer and Communications Societies in San Diego, CA, USA, March 14-19 (pp. 1–9). IEEE.
61. Chesbrough, H. W., & Appleyard, M. M. (2007). Open innovation and strategy. *California Management Review*, 50(1), 57–76.
62. Boje, D. M., & Rhodes, C. (2006). The leadership of Ronald McDonald: Double narration and stylistic lines of transformation. *The Leadership Quarterly*, 17(1), 94–103.
63. McDonald's sets digital goals fuelled by loyalty, drive-thru. (2020, November 9). *BrainStation*.
64. Gupta, S. (2018). *Driving digital strategy: A guide to reimagining your business*. Harvard Business Review Press.
65. On-Piu Chan, J. (2020). Digital transformation in the Era of Big Data and Cloud Computing. *International Journal of Intelligent Information Systems*, 9(3), 16-23.
66. Napier, L., Curry, J., Libert, B., & de Vries, K. D. (2020, August 17). Modern business models will drive the post-pandemic world. *MIT Sloan Management Review*.
67. Kiel, D., Arnold, C., & Voigt, K.-I. (2017). The influence of the Industrial Internet of Things on business models of established manufacturing companies – A business level perspective. *Technovation*, 68, 4–19.
68. Mill, J. S., & Robson, J. M. (1991). *Indexes to the collected works of John Stuart Mill*. University of Toronto Press.
69. Simon, H. (1962). The architecture of complexity. *Proceedings of the American Philosophical Society*, 106(6), 467–482.
70. Calhoun, M. (2010). Complexity and army transformation. *Unifying Themes in Complex Systems*, 5, 73–80.
71. MacGregor, D. (1997). *Breaking the phalanx: A new design for landpower in the 21st century*. Praeger Publishers. p. 160.
72. Nygren, K. (2002). Emerging technologies and exponential change: Implications for army transformation. *The US Army War College Quarterly*, 32(2).
73. Jonnson, O. (2019). *The Russian understanding of war: Blurring the lines between war and peace*. Georgetown University Press.
74. Nickerson, J. A., & Zenger, T. R. (2004). A knowledge-based theory of the firm—The problem-solving perspective. *Organization Science*, 15(6), 617–632.
75. Williamson, O. (2002). Market and hierarchies: Some elementary considerations. In D. Faulkner (Ed.), *Strategy: Critical perspectives on business and management* (Vol. 4, pp. 106-118). Routledge.

76. Egelhoff, W. G. (2020). How a flexible matrix structure could create ambidexterity at the macro level of large, complex organizations like MNCs. *Management International Review*, 60(3), 459-484.
77. Perona, M., & Miragliotta, G. (2004). Complexity management and supply chain performance assessment. A field study and a conceptual framework. *International Journal of Production Economics*, 90(1), 103-115.
78. Petruzzellis, L. (2010). Mobile phone choice: Technology versus marketing. The brand effect in the Italian market. *European Journal of Marketing*, 44(5), 610-634.
79. Kasper, H., Bloemer, J., & Driessen, P. H. (2010). Coping with confusion: The case of the Dutch mobile phone market. *Managing Service Quality: An International Journal*, 20(2), 140-160.
80. Gould, A. M., & Desjardins, G. (2015). Smart for whom? Cost ambiguity as corporate strategy in the 21st century telco sector. *info*, 17(2), 59-79.
81. Komutanont, W. P., & Pires, G. (2016). Insights of resilience to crisis in the airline industry. *Global Business & Economics Anthology*, 1(1), 51-67.
82. Plessis, T. D., & Gulwa, M. (2016). Developing a competitive intelligence strategy framework supporting the competitive intelligence needs of a financial institution's decision makers: Original research. *South African Journal of Information Management*, 18(2), 1-8.