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Achilles' heel strategy: identifying and leveraging a competitor's weakest point

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Significant developments in military strategy over the past century have had little impact, if any, on business strategy. This article focuses on the military paradigm shift from brute-force frontal confrontation as practised in the First World War to shrewd identification of weaknesses in the adversary's rear. To apply this insight in the business world, we present a methodology focusing on the weakest link: the Achilles' heel. We apply this methodology in identifying the adversary's Achilles' heel and attacking it. We aim to avoid attacking the competitor's front namely its products in the marketplace through painful head-to-head attrition price and advertising wars. Instead, we propose a new attack strategy – focusing on the adversary's weakest link. The study integrates a new military insight, specifically from an approach called operational theory, with an insight from the theory of constraints. The sophistication of the Achilles' heel strategy makes it particularly effective for small players – David competing with large Goliaths. We present a methodology: identifying the Achilles' heel; deciding whether or not to attack it; and tailoring an Achilles' heel strategy. The theory is illustrated by numerous business and military applications.

Keywords: strategy; offence; defence; operational theory; theory of constraints

Achilles' mother, the nymph Thetis, anxious to make him immortal, dipped him in the River Styx. In the process she held him by his heel which remained dry and became his vulnerable spot. During the Trojan War, the Trojan prince Paris shot an arrow into Achilles' heel and killed him. The story illustrates that even the most powerful opponent has vulnerabilities that can be taken advantage of by perceptive and shrewd adversaries, equipped with a suitable Paris' arrow. The military attrition strategy of the First World War's trench warfare resulted in 9.8 M military deaths. The brute-force reciprocal slaughter resulting in a bloody Pyrrhic victory led to a paradigm shift in military philosophy advocating a systems strike at the adversary's rear that would drive the adversary off balance through manoeuvring (in the USSR), or an 'indirect approach' as in the west. Consider, for example, Montgomery's victory over Rommel during the Second World War. Rommel's Achilles' heel was long vulnerable logistic lines. By breaking the Enigma code which enabled the systematic sinking of supply convoys to North Africa, the British Paris' arrow was to starve Rommel's forces of gasoline and other supplies, as reflected in Rommel's words: 'It will be quite impossible for us to disengage from the enemy. There is no gasoline for such a manoeuvre. We have only one choice and that is to fight to the end at Alamein' (Vivian 2000, 279).

Despite the fact that such an attack strategy has never been conceptualised in the business domain, outstanding executives have occasionally intuitively used this strategy. Personal insight, business prowess and intuition have helped them pinpoint and attack their competitor's critical weak point. This principle is essential for small competitors guaranteed to lose attrition wars when entering a giant's turf. Attacking the Achilles' heel is their smart option.

A win-win solution is always preferable to confrontation. We recommend the use of the Achilles' heel strategy only as a last resort when all attempts at cooperation have failed. Contrary to the military objective of defeating the enemy, the business objective of an attack is much less aggressive. Businesses should aim just at weakening the adversary's competitive stance and drive for coexistence.

This article outlines an attack strategy that enables small and medium companies to intelligently compete against large adversaries. Rather than falling prey to the giants' resources in winning price wars, they should take advantage of vulnerabilities such as slow response times, arrogance, overconfidence and attack their adversaries using legal and ethical methods. Examples of companies that followed such a strategy successfully are provided throughout the article.

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1. Theoretical background

1.1 *The need for a new attack strategy*

The 'military experience is a veritable goldmine of competitive strategies all well tested under combat positions' (Mintzberg, Ahlstrand and Lampel 1998, 91). Indeed, the business literature on competitive strategy and marketing is partly based on military theory. However, offensive business strategies are for the most part not based on proven modern military theories, but rather on the outdated theory of Prussian General Carl von Clausewitz. In his book, *On War* (1832), Clausewitz observed that an asymmetrical relationship existed between attack and defence and concluded that an offence strategy is advantageous. His emphasis on attacking the opponent's frontline is blamed for the First World War's attrition warfare.

Influenced by Clausewitz, the competitive-strategy literature focuses on attacking the adversary's front, specifically markets, distributors and products. Unfortunately, the strategic business literature ignores the competitors' weak points and neglects the organisational layers behind the competitors' front. This is evident in Porter's four generic strategies that focus on the market (broad or narrow) and on the product (standardised/low cost or differentiated/higher cost). In contrast, in ancient times, when confronting Goliath, King David preferred not to use heavy arms for attacking his enemies' armoured front, which is the business equivalent of attacking the competitors' product-market. Instead, he chose to surprise Goliath with his sling and struck his bare forehead using the strategy of attacking his enemies' Achilles' heel.

Following the lessons of the First World War, military theory evolved in an attempt to reduce the resistance of the enemy and to minimise the casualties suffered. This development prescribed increasing the attacker's mobility (Fuller) and an 'indirect approach' that avoids attacking the enemy's front (Liddle Hart). The jewel in the crown of this development is called operational theory.

The business literature has not yet adopted the ideas of operational theory. Therefore, we present a fresh attack strategy – the Achilles' heel strategy, based on operational theory. It focuses on identifying the competitor's Achilles' heel deep in its organisational system and taking advantage of its vulnerability.

1.2 *Using advanced theories to develop a new offensive business strategy*

The Achilles' heel strategy integrates insight from two relatively new theories: operational theory, from the military domain, and the theory of constraints (TOC) from the organisational domain.

1.2.1 *Operational theory*

Operational theory focuses on attacking the enemy's weak point in the depth of its system to cause its collapse. Its application in the business domain requires that the CEO analyse the company's external environment and identify the dominant competitor's Achilles' heel. The assumptions that a strike at a competitor's Achilles' heel (unlike other weak points) will create a shock, throw the entire company off balance and disrupt its operational ability to meet its strategic goals. In contrast to Strengths – Weaknesses – Opportunities – Threats (SWOT) (Coman and Ronen 2009), analysing the opportunities and threats in the external environment and the strengths and weaknesses of one's business competitor does not suffice. The competitor is seen as a dynamic system, its Achilles' heel should be identified, based on its interactions with other parts of the system, and its ability to react to the planned strike must be assessed. A calculated application of operational theory, as an 'indirect approach' for attacking a competing organisation's Achilles' heel, is a breakthrough, given its avoidance of the costly clashes and friction that characterise direct attacks on the competitor's product market.

Operational theory was the most significant development in military thinking of the twentieth century. The new approach introduced a new intermediate level of planning and implementation called the operational level, which characterises a front (among the entire war's fronts) that may be engaged in several battles and lies between the strategic level of war and the tactical level of battle. Developed in the USSR by Marshal Tukhachevsky and his colleagues in the 1920s, operational theory involves planning and carrying out an operational strike that drives the enemy off balance through manoeuvring (Naveh 1997).

By thinking of one's enemy as a system, the campaign is deep and not confined to the frontline. The strike is targeted at the weak point in the depth of the system and is intended to harm it and to separate the enemy's central components in order to break the synergy between them. The strike is also designed to neutralise the enemy's ability to get reinforcements from its operational reserve, thereby thwarting a counter-attack on one's own forces. It is based on coordinated cooperation between corps as well as on integration of mobility, firepower and shield. The strike is inflicted

simultaneously along the entire depth of the enemy's positions, while rapidly concentrating forces at the appropriate space and time and keeping the momentum of the manoeuvre going until the enemy collapses.

To shock the enemy, the strike is composed of three echelons: The first is frontal and compels the enemy to concentrate forces in the frontline, thereby weakening its ability to resist in its rear; the second carries out the breakthrough and manoeuvres within the enemy lines; the third executes special operations in the enemy's rear (Naveh 1997). Thus, operational theory combines attack and defence: Manoeuvring is not restricted to the offensive forces but includes the front forces which are supposed to carry out a dynamic defence, harm the enemy and prevent it from attacking and gaining success.

The concept of operational theory was adopted by the American Armed Forces (Training and Doctrine Command) and expanded upon to create an operational war-fighting doctrine named Airland Battle. This doctrine was at the core of 'the revolution in military affairs' undertaken after the failure of the Vietnam War. It was successfully applied in the Gulf War and its implications on the structure of the high command are anchored in legislation (Goldwater-Nichols Act).

1.2.2 *The theory of constraints*

The TOC is widely used in manufacturing, project management, logistics and sales. It grew from the well-established discipline of mathematical programming (Ronen and Starr 1990), taking the mathematical principle of a constraint, identifying it and focusing on significantly increasing the throughput from the constraint. We use the TOC to identify the competitor's Achilles' heel. The TOC illustrates how system constraints prevent a company from meeting its business goals. The TOC methodology and tools identify and manage the system constraint, which is the organisation's weak link. The goal is to increase organisational performance and create value.

The TOC focuses on leveraging internal strengths and does not address the competitors' constraints. The Achilles' heel strategy expands the TOC into an attack theory by identifying the adversary's Achilles' heel and attacking it.

The TOC was introduced by Eliyahu M. Goldratt in his book 'The Goal' (Goldratt and Cox 1984) and its premise is that achievement of the organisational goal is limited by a binding constraint, not hundreds or dozens of problems. It focuses on the identification of the binding constraint and its resolution in order to improve the organisation's value creation. TOC methodology consists of five steps, which were formulated by Goldratt (1988):

(1) Identify the system's constraint;
(2) Exploit the system's constraint;
(3) Subordinate the system to the above decision;
(4) Elevate the system's constraint;
(5) If in a previous step, the constraint was 'broken' go back to step 1. Do not let inertia become the system's constraint.

The TOC was initially implemented in manufacturing (e.g. Kim, Davis, and Cox 2003) and then scored numerous successes in logistics, distribution, project management, R&D, services, government and non-profit organisations. Research on TOC effectiveness (Mabin and Balderstone 2000; Ronen and Pass 2007) shows a dramatic increase in throughput and a significant reduction in lead time while the quality is improved. Ronen, Lechler, and Stohr (2012) enhanced the TOC principles by better screening products, services, clients, projects, etc. using the 25/25 principle.

The TOC locates the system's bottlenecks, protects and improves their performance. In this article, we pursue a reverse TOC methodology to identify the adversary's Achilles' heel and design a Paris' arrow to weaken it and reduce the adversary's strength and competitive threat.

2. The Achilles' heel concept and methodology

2.1 *Overview*

The Achilles' heel strategy is based on two constructs: the Achilles' heel and Paris' arrow.

A company's Achilles' heel is defined according to the organisation's strength and survivability. Therefore, it is not necessarily its bottleneck, which is defined as the resource that constrains the organisation's throughput. For example, in a modern military air force the organisational constraint in an offence strategy might be precise intelligence on the locations of targets. Without it, even the best air force will not be effective in its operation. At the same time, the Achilles' heel of the same air force may be the vulnerability of the airplanes on the ground.

Reliability theory analyses situations where the systems are connected in series and/or in parallel (excluding the case of predesigned redundancy). In all cases, the system's reliability is determined by the least reliable component. Consider,

for example, the Columbia space shuttle disaster. The shuttle crashed due to 'foam shedding' where the weakest tile – the one with the weakest adhesive attachment to the shuttle body – caused the disaster.

Hurting a competitor is dangerous and does not necessarily add significant value to one's firm. There are several lines of inquiry that must be thoroughly assessed before deciding whether or not to carry out an offensive in line with the Achilles' heel strategy. Specifically, one must consider the following interrelated questions:

- Risk assessment: thinking of the 'day after' in view of all the market players.
- Cost–benefit analysis from the attacking organisation.
- Timing: what is the best timing for the attack?

Based on insights from operational theory, the basic guidelines for carrying out an Achilles' heel strategy are:

(1) Attack the Achilles' heel. A common target generates cohesion within attacking forces.
(2) Surprise is the key in target choice, attack method and timing. Surprise should drive the adversary off balance.
(3) Maintain speed and momentum to prevent the adversary from recovering.
(4) Integrated offensive: synchronise attacking units to simultaneously attack the adversary's front and rear in order to create confusion.
(5) Divide and disrupt adversary coordination and communication. Block reinforcement forces.
(6) Defend your Achilles' heel against retaliatory attack.

2.2 *Methodology*

The methodology for the identification of the Achilles' heel and the design of the Paris' arrow consists of five steps:

(1) Identify the adversary's Achilles' heel; decide whether and whom to attack and generate a Paris' arrow:
(2) Confuse the adversary and overload its Achilles' heel;
(3) Isolate and starve the adversary's Achilles' heel;
(4) Attack and neutralise the adversary's Achilles' heel;
(5) Return to step 1 if the adversary's Achilles' heel has moved elsewhere – avoid inertia.

We now elaborate on the five-step methodology.

2.3 *Identifying the adversary's Achilles' heel*

This is step 1, which is equivalent to TOC step 1: identify the system's constraint.

Figure 1 presents four areas where the Achilles' heel can be located:

(1) Regulators (regulations, protectionism) and non-government organisations (NGOs).
(2) The supply chain (e.g. sole supplier), as well as business associates.
(3) Customers (e.g. sole customer) and the distribution chain (long chain, sole distributor).
(4) Internal resources:

- Value chain (critical stages).
- Executives and members of board of directors.
- Policy constraints (silos, performance measures, pricing).
- Physical resources (bottlenecks, talents, human resources).
- Processes & structure (bureaucracy).
- Intangible assets: Image, reputation and culture.

Vulnerabilities to be sought in the adversary's supply chain include: long supply chain, shortage of components (end-of-life or peak demand for key components), sole supplier, business associates, co-owned companies, etc.

Internal constraints are sought in the adversary's value chain. They include resources – physical as well as intangible such as key experts, seasoned executives, board of directors, technology breakthrough leaders, cutting-edge technologies, machines, etc. Capital is yet another potential internal constraint. Intangible assets such as image, reputation and brand appeal should be considered.

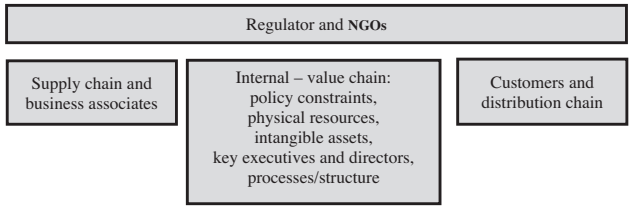

Figure 1. Areas of the Achilles' heel.

Processes are another potential internal constraint. Examples include cumbersome and slow processes. They often result from a silo organisational structure and culture. Silos result in lack of coordination, conflicts of interest and a multitude of ineffective competitive responses.

Policy constraints include faulty pricing and cost accounting procedures. Poorly defined and poorly enforced policies resulting from in-process chaotic mergers and acquisitions. Weak intangible assets include poor branding and positioning.

Inappropriate key performance indicators (KPIs) and incentives are yet another potential constraint. Lack of differentiation and lack of focus result in vulnerable management functions. Finally, unchecked pursuit of market share and revenue thinking as opposed to profitability thinking present another potential Achilles' heel. Market segment negligence presents an opportunity when the adversary focuses on large segments, ignoring profitable niches.

Potential Achilles' heels include dominant customers as well asdistribution chains when they are long or concentrated in the hands of a single distributor.

Finally, regulators and NGOs are potential Achilles' heels. Small players can use the regulator as a weapon constraining large adversaries' manoeuvrability by demonstrating illegal competitive practices violating anti-trust regulation. Similarly, NGOs can damage the adversary's image, appeal and ability to use low-cost sourcing options (e.g. child labour, unfair supplier payment practices, etc.).

A set of tools is useful in identifying Achilles' heels in various domains. The Arena model (Coman 2008) is effective at mapping the supply and distribution channels and identifying weak links in them. A single image describes value creation players – companies, from basic inputs to the final consumer. Experienced executives will identify potential weak links to be explored as Achilles' heels.

Ronen and Pass (2007) developed the focused current reality tree (fCRT). The fCRT identifies the organisation's core problems. Some core problems are potential Achilles' heels.

KPIs include financial and operational parameters. KPIs identify weaknesses in important product and service competitiveness. They help identify adversary vulnerabilities in terms of market share, quality, image, time to market, agility, etc. Table 1 summarizes the identification of Achilles' heels.

Flowcharts describe value creation flow within the organisation. By analysing process interfaces, inefficiencies and blind spots, we can identify Achilles' heels.

Table 1. Identifying the Achilles' heel.

	Achilles' heel					
Potential areas:	Supply chain and business associates	Internal – value chain			Customers and distribution chain	Regulation and NGOs
		Policy constraints	Resources and assets	Processes and structure		
Identification tools*	ARENA	Focused CRT, KPI analysis	Bottleneck analysis	Flowchart	ARENA	
	SWOT, inter-stakeholder analysis (ISA), financial statement analysis, common-sense					
Examples	Long supply chain, shortage of components, sole supplier	Costing/pricing, chaotic M&A, inappropriate KPIs, no differentiation, no focus, market share/revenue thinking, market segment negligence	Senior executives and board members, experts, key human assets, capital, image, reputation, culture	Long time-to-market, silos, branding and positioning	Dominant customers, long distribution chain, sole distributor	Monopoly

*A brief introduction to identification tools is provided later. A full description can be found in Ronen and Pass (2007).

Bottleneck analysis aims at identifying areas of over capacity and resource bottlenecks. Peak analysis identifies periods when bottlenecks become liabilities. This occurs during peak times such as year end, holidays, etc. (Ronen and Pass 2007).

SWOT analysis is a broadly used well-established value analysis tool. Focused SWOT analysis should be used to identify adversary weaknesses as well as potential threats that can be taken advantage of.

Inter-stakeholder analysis (ISA) analyses the intensity of relationships between the adversary and business stakeholders such as manufacturers of key components, supply chain players, key distributors, consultants, influencing customers, purchasing decisions and regulators.

We seek stakeholders that bear great influence on the adversary and at the same time are not vulnerable to its actions since they could easily replace it.

Financial statement analysis helps to identify financial vulnerabilities such as low liquidity, inventory overburden, loss of value generating market segments and product lines, etc.

Finally, common sense is a deadly weapon when judiciously applied by industry mavens. By understanding adversary impulses, internal conflicts and goals, we can expose vulnerabilities.

2.4 *Launching an attack on the adversary's Achilles' heel*

Given the offensive nature of business competition, a company should seek to leverage its strongest competitive advantage and use it as the arrowhead in an offensive. This brings to mind how in ancient times, the outcome of battles was sometimes determined by a contest between the single strongest warrior of each side. Likewise, in the Second World War, the battle over the UK was determined by Royal Air Force pilots (who had the advantage of valuable intelligence data). As Churchill said: 'never in the field of human conflict was so much owed by so many to so few.' Coca Cola's arrowhead is its marketing ability and for 3M it is its innovation.

The maximal effect might be gained by directing the arrowhead to hit the competitor's Achilles' heel. However, possessing the greatest competitive advantage is not always relevant to an attack on a competitor's Achilles' heel. In order to attack a competitors' Achilles' heel, one needs the strengths appropriate to the task. If one does not possess these strengths, they need to be built up and sharpened, so that an attack will be possible at a later date.

The TOC advises a company on how to use its constraint to its utmost benefit by ensuring that the constraint is utilised effectively and efficiently. This is achieved by the five TOC focusing steps aimed at *increasing* bottleneck capacity. The Achilles' heel strategy converts these steps into an inverse methodology aimed at *decreasing* bottleneck capacity, thereby harming the adversary's competitive advantage. After identifying the adversary's Achilles' heel (i.e. step 1), the remaining Achilles' heel steps are as follows.

Step 2: confuse the adversary and overload its Achilles' heel. This is the logical opposite of TOC step 2: exploit the constraint. The goal is to cause the competitor to use its Achilles' heel in the most ineffective way. The idea is to divert the competitor's attention from the upcoming attack by initiating a preliminary deceptive action that will consume Achilles' heel capacity and overload it with dummy tasks.

Step 3: isolate the adversary's Achilles' heel from its supporting elements and starve it. This is the logical opposite of TOC step 3: subordinate the entire system to the constraint. This step is intended to make sure that the competitor does not succeed in subordinating the entire system to the constraint, or diverting resources from other units to assist the Achilles' heel. Severing the ties between units prevents the adversary from diverting some Achilles' heel responsibilities to other units to reduce its work load (offload). In statesmanship and warfare, this move is associated with the 'divide and conquer' approach and involves isolating enemy units and preventing them from getting reinforcements as well as disrupting their internal communication.

Step 4: attack the Achilles' heel and neutralise it. This is the logical opposite of TOC step 4, elevate and break the constraint, and the climax of the attack.

Step 5: return to step 1 if the adversary's Achilles' heel has moved elsewhere – avoid inertia. This is the equivalent of TOC step 5, look for the next constraint if the system constraint is 'broken'.

To briefly demonstrate this five-step process, we turn to the mid-1990s when commercial airlines *identified* the travel agents' total dependency upon them as their Achilles' heel. The emerging internet became their Paris' arrow. To *confuse* travel agents, the airlines' websites initially provided customers with information only. Later, ticket sales were introduced thus *isolating* the travel agents. Delta Airlines then *attacked* unsuspecting travel agents by slashing commissions from 10% of the ticket value to a flat $50 (Clemons and Santamaria 2002).

3. Examples of applying the Achilles' heel

We now present a list of examples illustrating each of the four stages of launching attacks. We start with a list of military applications and proceed with business and non-profit applications. Table 2 summarizes these examples.

3.1 *Military examples*

The concept was developed in the military domain. Long logistic (supply) lines are a common Achilles' heel, as are areas falling between the responsibilities of two battalions and coordination of air, ground, and navy forces.

3.1.1 *Overload and confuse*

- When President Ronald Reagan came into office in 1981, the cold war between the USA and the USSR intensified. The USSR's Achilles' heel was a severe economic crisis which crippled its ability to finance military expenses. 'Star Wars', the US Strategic Defence Initiative to construct a ground- and space-based defence system, was the Paris' arrow that forced the USSR into an exorbitant arms race. The Star Wars initiative is credited by many observers for causing the collapse of the USSR.

3.1.2 *Isolate and starve*

- Napoleon led his half a million strong Grande-Armée in an attack on Moscow. The Russians identified Napoleon's long supply lines as his Achilles' heel. Their Paris' arrow was a scorched-earth strategy during their three-month winter retreat.

3.1.3 *Attack and neutralise*

- Following the First World War, the French embarked on a grandiose fortification project – the 700 KM long impervious Maginot Line along the French–German border, aimed at blocking German attacks into France at the cost of three billion French francs. During the Second World War, German strategists von-Manstein and Halder realised that outnumbered German troops would have to attack the enemy's Achilles' heel – the flanks. The German's Paris' arrow was a Blitzkrieg attack through the dense Ardennes forest in the North Eastern region of France circumventing the Maginot Line and within a month conquering Paris.
- Germany's powerful tank units excelled during the Second World War. Allied forces discovered that half of the ball bearings used in German tanks were manufactured in a handful of plants in the town of Schweinfurt, Bavaria. The Allies' Paris' arrow was massive air bombing of the German Achilles' heel in the autumn of 1943, significantly stalling the manufacturing of German Panzer tanks.

Table 2. Examples of Paris' arrow according to the Achilles' heel steps.

	Examples					
Stage	Military	Business				
Overload	Star Wars	Distribution: Apple's iPhone	Distribution: watch franchise	CEO board of directors		
Isolate and starve	Napoleon, Rommel	Obsolete components	Silos: the mobile service provider	Law enforcement: money laundering	Law enforcement: car theft, scrap metal	
Attack	Goliath, Maginot Ball bearings	Talent: Havas, Chromatis	Merger: Logica-CMG	Costing	Regulation: 3 M	Product gap: Bombardier
Avoid inertia	Joshua at Ai	Lawsuit: Huawei				

3.1.4 *Avoid inertia*

Consider the biblical example of Joshua attacking the highly fortified city of Ai. Ai had the upper hand in terms of defence. Joshua's first attack failed. He identified the people of Ai's Achilles' heel as their fear from his army, following the Jericho victory. Next, he re-identifies the people of Ai's weak command as their Achilles' heel. Ai had the upper hand in terms of defence, so Joshua had to resort to deception.

> Joshua and all Israel made as if they were beaten before them, and fled … And all the people that were in Ai were called together to pursue after them: … and there was not a man left in Ai or Bethel that went not out after Israel: and they left the city gates open, … and the ambush arose quickly out of their place … and they entered into the city, and took it. (Joshua 8: 15–19)

The Achilles' heel at Ai was the weak command, Joshua's Paris' arrow was the deception leading the soldiers away.

3.2 ***Business examples***

3.2.1 *Overload and confuse*

- An important Paris' arrow is to overload the adversary's distribution channels. Apple's iPhone was sought after by mobile phone operators seeking to attract new subscribers. Outside the USA, Apple did not provide exclusivity to any operator and included a clause committing them to the distribution of large quantities of iPhones over a period of three years. As a result, Apple increased its market share at the expense of adversaries such as Motorola, Sony-Ericsson and Samsung.
- Sometimes, a losing player can force a Pyrrhic victory on its adversaries, as in the case of a watch distributor that was competing against a larger player for the franchise of a Japanese watch manufacturer. Realising that the larger player was determined on winning the contract and that it could not achieve a profitable victory, the distributor repeatedly raised the quantity of watches that it committed itself to distribute. When the larger player finally won the bid, the winner's distribution channels were so clogged with quotas for the Japnese manufacturer that its competition in other product lines was ineffective.
- A company's Achilles' heel is often found in high-ranking decision-making forums. This is particularly the case with the board of directors, which is the only forum authorised to make certain significant decisions. Unfortunately, unethical businesses harass boards with legal action, thus sidetracking them and paralysing their ability to reach the right decisions at the right time.

3.2.2 *Isolate and starve*

- The Achilles' heel is often a constrained resource such as a critical component, knowledge or some other specific skill. The Paris' arrow is directed at cornering this resource and making it unavailable to the adversary.
- A US government agency published a tender for a complex high-tech system. One player recognised that a certain component that was required in the contract was declared as 'end-of-life' by its manufacturer. The player bought the whole stock of components from the manufacturer, thus preventing its larger adversaries from bidding. The player identified the obsolete component as a potential Achilles' heel. By buying the whole stock – the Paris' arrow – the player neutralised its opponents and won the bid with high profit.
- Often, the Achilles' heel is the no man's land between organisational silos. A supplier of network equipment to a mobile service provider faced intense threats from a lower-cost adversary. The supplier realised that the life-cycle value generated by the contract consisted of sale value plus integrated logistic support (ILS) – accessories, spare parts, training, etc. The customer's purchasing function of the adversary was judged exclusively by its ability to reduce the purchasing price. Having realised this, the supplier attached a competitively low price to the initial sale realising that it could more than compensate for it in ILS pricing which was left open due to the customer's silo decision-making mentality. The silo gap resulting in myopic, locally optimised decision-making was the Achilles' heel. The manipulative pricing mechanism was the Paris' arrow.
- Law enforcement's fight against drug trafficking has been notoriously ineffective. Blocking traffickers in the 'trenches', that is stopping smuggling or arresting drug dealers, has largely failed due to the geographic breadth of the 'frontier' and to the crime cartels' ease of substituting lost 'soldiers'. The cartel's Achilles' heel was

discovered in their 'back-office' money-laundering operations. Large quantities of cash, with a relatively high proportion of counterfeit bills have to be integrated into the legitimate financial system. This vulnerability is accentuated by the fact that financial institutions are highly computerised and regulated. The Paris' arrow was to require high reporting standards from the financial establishment. This effort was so successful that even the Swiss banking system had to dispense with its clandestine mode of operation, introduce more transparency and block an attractive laundering resource. The same method proved successful in anti-racketeering activities targeting organised crime, stolen-car operations, counterfeit pharmaceutical rings, etc.

3.2.3 *Attack*

- Creative talent is a highly constrained resource in the advertising arena. Talent shortage can result in an agency such as Aegis winning the formidable Procter and Gamble account and in the same year losing the Citibank account. Having recognised its adversaries' Achilles' heel, Havas, rating its creativity at 8 (out of 10) first retained ALL the talent that it wanted to retain around the world (Havas 2008). Given the scarcity of this resource Havas, in 2003, hired top talents to re-launch its activities from its adversaries. The result was that Havas got more lucrative accounts.
- During the millennium high-tech bubble, an entrepreneur named Orni Petrushka created a start-up he named Chromatis. Petrushka identified a weakness in the optic fibre technology offering – the fact that a single call could be communicated on a single wire. Set on exploiting this brief window of opportunity by providing a solution to first-tier players, Petrushka had to rapidly assemble a team of expert optical engineers. He identified the Achilles' heel of incumbents – a laborious human resources decision-making process focused on preventing an avalanche of employee demands. Petrushka's small scale enabled him to generate a Paris' arrow – a radically different, rapid and no-nonsense employee benefits setting process. Consider, for example, the effect of Petrushka's attitude when attempting to recruit a brilliant project leader from an incumbent company. He noticed the candidate's frustration with the company car assigned to him. The employer's human resources decision-making process consisted of a request being made to the division head of HR who would need a recommendation from the division's head of R&D leading to a request for approval from the company's head of HR – a process that lasted around nine calendar months. During the job interview, he asked Petrushka which car would be assigned to him by the company. Petrushka's answer- 'pick any car you want'- was so different from that of his current employer that he accepted the job, leaving key development projects at his previous employer unresolved.
- A developer of value-added services such as voicemail, SMS, etc. was informed that the two leaders in the arena – Logica and CMG – had agreed to merge. The knee-jerk reaction was to treat this merger as a threat. However, deeper analysis exposed a short-term Achilles' heel in the merged company's decision-making processes. This resulted from unclear reporting hierarchies and unfamiliarity with new executives in key positions. The underdog took advantage of the decision-making chaos in the new company, the reduced motivation due to job loss and demotion. The Paris' arrow consisted of aggressively provided bid offers to Logica–CMG customers. This resulted in an almost 50% decline in Logica–CMG's valuation during the two quarters following the merger.
- Erroneous decision-making models provide a classical Achilles' heel. This is particularly prevalent with product pricing erroneously using a cost-plus methodology based on full overhead allocation, as in the case of a manufacturer of PVC piping bidding on a tender by a large electric utility company. The industry was in a cyclical over capacity – operating at about 70% of manufacturing capacity. The leading adversary was using the classical full-allocation cost-plus pricing methodology which completely ignores resource utilisation. The cost-plus mechanism which is a wrong pricing methodology generates particularly inflated prices during extreme underloaded periods – this was the bidder's Achilles' heel. The manufacturer's Paris' arrow was to bid considering the marginal contribution of the contract. Thus, it was able to consistently underbid its larger adversary and return to profitability in a bearish cycle.
- Regulation is yet another potential Achilles' heel weakening powerful global players vs. weaker local incumbents. Consider, for example, 3 M's competition in the luminous-vest arena. 3 M was threatened by significantly cheaper Chinese manufacturers. Its lobbyists succeeded in several instances in inserting into the legal requirement to wear luminous vests the specification that the vest must comply with European standards. This insignificant bureaucratic requirement was 3 M's Paris' arrow – eliminating Chinese players from the competition.

- Product ageing is yet another Achilles' heel. Bombardier, a manufacturer of aircraft identified that the Achilles' heel of its two leading adversaries – Boeing and Airbus – was an anticipated seven-year window of vulnerability in the years 2013–2020. Bombardier anticipates that sales of Boeing's 737-600/700NG and Airbus's A318–319 will decline starting in 2013 while their new-technology single-aisle replacements – the Boeing 737RS and Airbus A320NRS – will only be launched in 2020. Bombardier's Paris' arrow is the launch of its C-series in 2013 to take advantage of this temporary weakness. The Achilles' heel was a product gap. The Paris' arrow was an intermediate product.

3.2.4 *Avoid inertia*

Reassess the location of the adversary's constraint repeatedly. Do not let inertia become your vulnerability (see example in the next paragraph).

3.3 *Full process illustration: the Huawei case study.*

Huawei is a Chinese multinational networking and telecommunications equipment and services company headquartered in Shenzhen, Guangdong. Although founded only in 1988, Huawei has a leading role in global telecommunications. Huawei gained an outstanding growth rate by applying the Achilles' heel five-step methodology:

Step 1: Identify the adversary's Achilles' heel.

The Achilles' heel was identified as the short-term goals of western CEOs: their willingness to risk losing intellectual propriety for the promise of entering the Chinese market (to sell the current generation of their product) and gaining short-term results. Preparing for an attack, Huawei developed a Paris' arrow consisting of several elements. The first was global restructuring with the aid of western consulting firms such as IBM and KPMG. The second was collecting intelligence by setting up R&D centres located in western innovation clusters and establishing joint ventures with leading telecommunication companies. The third was building global marketing infrastructure through centres adjacent to its R&D centres and an advanced global service across 130 branches.

Step 2: Confuse the adversary and overload its Achilles' heel.

Huawei confused its western competitors by initiating strategic collaborations, allegedly aimed at jointly cornering western and Chinese markets. In reality, the cooperation was apparently aimed at obtaining technologies and closing the performance gap with the west.

Once the western partners realised that their technological advantage had vanished, they were overloaded by the urgent need to develop new differentiating technologies.

Step 3: Isolate and starve the adversary's Achilles' heel.

Western partners counting on reducing costs by offshoring part of their R&D resources and moreover by counting on Huawei's marketing presence in South-East Asia found themselves starved of marketing and R&D resources. The reversal was so abrupt that senior western executives were isolated from external decision support resources.

Step 4: Attack and neutralise the adversary's Achilles' heel;

The launch of the next generation equivalent or superior products and services at cut-throat prices made it hard for the western adversaries to compete. The swift reversal of intentions occurred before the competitors' CEOs came to their senses and were able to respond effectively. Initially, the western CEOs were reluctant to sue – still fearing to lose the Chinese market.

Step 5: Return to step 1 if the adversary's Achilles' heel has moved elsewhere – avoid inertia.

Huawei's initial attack was so effective that the company became complacent and vulnerable to inertia. The western CEOs eventually responded with lawsuits for non-disclosure agreement violations and illegal use of software source code. They also urged their governments (the USA in particular) to constrain the sale of USA companies to Huawei (e.g. 3com).

Due to the success of its attack strategy, Huawei is no longer dependent upon aggressive appropriation of western technologies.

The next Achilles' heel Huawei may exploit is the current weakness of the USA economy (with $16 trillion in debt) relative to the rapid growth of the Chinese economy (with $3.3 trillion in reserves). While Huawei does not usually waste time and money on mergers and acquisitions, one of the consequences of the west's economic difficulties is a trend towards consolidation. This trend has created several large companies which are vulnerable to attack due to cumbersome

decision-making, slow new product development, lack of focus, internal rivalry between business units and motivational problems due to massive layoffs. Thus, the next Achilles' heel might be large western companies' slow response time. Moreover, Huawei is more open to seeing and solving problems from a consumer's perspective. The effective application of the Achilles' heel methodology enabled Huawei to grow rapidly and become the largest telecommunications equipment maker in the world.

4. Conclusions

We have presented a methodology for the identification of the adversary's Achilles' heel, the creation of a Paris' arrow and the launching of an attack.

Considering that once the opponent is attacked, retaliation is inevitable, we have developed a defence methodology identifying our own Achilles' heel and defending it, as well as our business partners, but this is beyond the scope of this article and calls for further research.

Given the fact that military thinking has evolved over thousands of years, it is clear that management thinking which has only come about in the last century may benefit from military experience and insights. Basic principles of war such as 'For by wise counsel thou shalt make thy war' or 'The first rule in the art of war is that all is a deception', highlight the age-old role of ploys in war. Still, the indirect approach and 'the art of the ruse' have not been developed in the business domain. As a consequence, shallow and futile attack strategies, such as price wars, which are destructive to all companies involved, are still in evidence, even though their military equivalent (attritional warfare or trench warfare) is considered archaic and obsolete.

2500 years ago, the wise Chinese Sun Tzu claimed that 'one can advance without any obstacles if one's steps target the enemy's weak points'. While no strategic approach can guarantee success, the likelihood of success with the Achilles' heel strategy is relatively high if the circumstances in the external and internal environment of the company are suitable. In fact, proper application of the Achilles' heel strategy, according to the specified guidelines and methodology, will usually result in a significant improvement in the attacking company's competitive advantage relative to the attacked adversary.

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