

Competition Traps: Unconscious Biases and Conscious Decisions

Oleksiy Osiyevskyy

University of Calgary, Canada

Liudmyla Shevchenko

Yaroslav Mudryi National Law University, Ukraine

Olga Marchenko

Yaroslav Mudryi National Law University, Ukraine

Yurii Umantsiv

State University of Trade and Economics, Ukraine

Abstract

Competition traps are common situations across industries where players become locked in intense and ineffective competitive positions leading to negative outcomes for everyone involved. This article summarizes the insights of the previously disconnected streams of literature, distinguishing five broad types of traps: cognitive, price, disruptive, platform, and internal competition traps. The article outlines the mechanisms behind each type of trap and negative impacts they can have for the companies and industries. The study concludes by providing evidence-based managerial advice about avoiding the various competition traps, enabling the companies to achieve sustainable growth and success.

Introduction

The problems surrounding business competition and competitiveness have been extensively studied in the literature. Typically, researchers focus on the fundamental nature of competition, the mechanisms behind it, its effectiveness within particular industries and markets,¹ sustainable competitive advantages of companies,² the role of innovation in shaping the competitive dynamics.³ Prior studies also investigated corporate

bankruptcies, mergers and acquisitions due to competition, and the role of state antitrust regulators in overseeing such processes.⁴

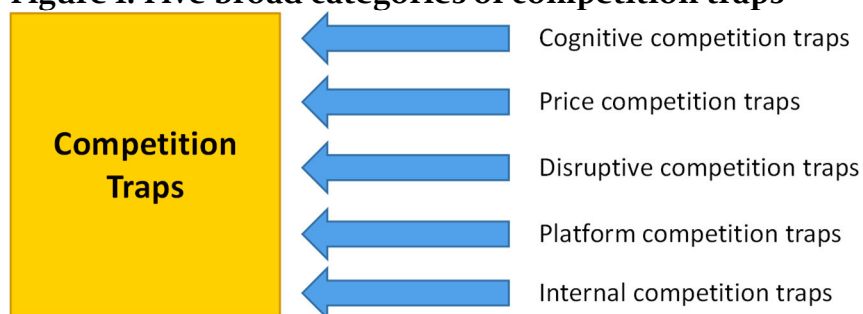
However, modern competition evolves in the conditions of growing environmental turbulence, characterized by rising volatility, uncertainty, complexity and ambiguity (VUCA environment).⁵ Inability to adapt to the hostile and constantly changing business conditions due to ineffective managerial decision making inevitably leads a businesses into competition traps.

The meaning of the word "trap" could be quite broad. For hunters, it is a specialized technical device for catching animals/prey.⁶ For the military, it is a cunning maneuver, a tactic used to lure the enemy into an unfavorable and dangerous position. For chemists, it is a chemical trap used to detect unstable compounds.⁷ For chess players, it is any cunning move that contains a hidden threat and entices the opponent to make a losing move, provoking them into a false, mistaken continuation of the game.⁸ For poker players, it is the so-called deceptive "slow play."⁹

In the domain of strategic management, the term **competition traps** refers to commonly observed situations across industries where players become locked in intense and ineffective competitive positions leading to negative outcomes for everyone involved. The situation resembles a closed circle: as participants are trying to escape the trap, they find themselves getting stuck in it even more.

Surprisingly, despite their prevalence in today's VUCA environment, the topic of competition traps did not receive systematic attention in academic or practitioner literature. To address this gap in understanding and offer evidence-based advice on avoiding such situations, this article summarizes the insights of the previously disconnected streams of literature in strategic management and managerial economics. Our review yields five broad types of competition traps (see Figure 1): cognitive, price, disruptive, platform, and internal.

Figure 1. Five broad categories of competition traps



Competition Traps

In the following sections, we summarize the causes and drivers of falling into particular types of competition traps and provide advice on effective management to avoid them.

1. Cognitive competition traps

Managers employ tactics that function as traps to undermine or eliminate their competitors. They achieve this by enticing other industry players to take actions that initially appear advantageous but ultimately lead to failure. However, in many cases, the companies find themselves in competitive traps without any deliberate actions of competitors; instead, these situations result from unconscious decision-making biases¹⁰ leading to risky decisions and opportunistic strategies. The literature highlights the existence of seven categories of cognitive competition traps stemming from unconscious managerial biases (see Table 1):

Table 1. Cognitive competition traps

1. Fetishization of competition: The competition fetish implies a false belief that there is no alternative to competition for organizing human activity. Competition has become so intense that its alternatives, such as coordination and co-planning, are perceived as obsolete and ineffective. Under this belief, competitive systems are implemented to solve all business issues within and outside the organization, with the blind belief that they will help in achieving fairness, efficiency, and protection against numerous risks. In other words, competition is perceived as a natural force that does not depend on human activity. The harm of competition fetishization is demonstrated, e.g., in the context of modern higher education. ¹¹
2. Demonization of competition: Demonizing the competitors implies focusing only on the hostile, negative aspects of interactions with rivals. The "theory of prizes" as coercive forces of competitive relations argue that competition itself is a trap that draws both cautious and careless into competitive relations through temptation of significant and immaterial rewards. ¹² When competitors are constantly viewed in a negative light, the business loses the opportunity to see them as potential collaborators, as well as understand what they are doing right, and what makes them competitive. It is necessary to carefully study the strengths of competitors and the weaknesses of one's own business, to find opportunities for cooperation and collaboration. ¹³
3. Reactiveness: This trap stems from focusing or even directing the company's activities exclusively in reaction to competitors' actions. In this case, an enterprise becomes not an active but rather reactive player and falls into a reactionary business model, being dependent on the competitors' behavior. Entrepreneurs are afraid to introduce something new without looking back at their competitors; they find themselves in a constant state of anxiety, and ultimately lose their own vision. ¹⁴ The focus on their own activity is lost. Competition imposes someone else's pace

and way of life, curtails the potential for freedom of actions, and controls human behavior.¹⁵

4. Excitement of competition:

This trap implies succumbing to the excitement of competition and therefore making imprudent decisions. Even outstanding entrepreneurs, managers and strategists who fall into the trap of the gambler can demonstrate such behavior. “Making big bets is one of the toughest jobs in strategy. The natural instinct of many managers and entrepreneurs is to plan, analyze, plan some more, and then move incrementally down the chosen path. Lesser strategists often hedge, delay, defer, and refuse to commit. Others take reckless positions that promise great rewards if successful, but risk bankrupting the organization over time. Great strategists must avoid both traps. They must be willing to “go for the big win” and have the courage and conviction to follow through on their plans.”¹⁶

5. Blind competitive mimicking:

Admittedly, it is useful to take into account the best practices and experience of market leaders; this is how industry players adopt successful practices. But there is also a downside, namely the risk of blindly following a specific business style. The following two mistakes can lead to this:¹⁷

- 1) *attribution error* — the tendency to explain a success or a failure of a decision by personal qualities underestimating the role of circumstances, other players, and chance. For example, it can be assumed that the same CEO will be equally effective in different companies — because it is all about their character, so you only need to use familiar techniques in a new space;
- 2) *the nimbus effect* — the tendency to form a general impression of something based on selected indicators. For example, if a company is well known, then it is considered to be successful. And if a CEO made a number of successful decisions, then all his work practices are genius. Managers borrow the “winning” strategy of other organizations, which may not work in their businesses.

6. Excessive caution and indecisiveness:

Excessive caution and indecisiveness imply spending a lot of effort and time assessing contradictory risks and impacts, and exaggerating the likelihood of a negative outcome. Often, an entrepreneur becomes dependent on the opinions of colleagues, experts or consultants, although their judgments may turn out to be wrong and cause real damage to the business. The concept of analysis paralysis is related to this, describing the state of a person or an organization when they are so deeply immersed in the analysis and consideration of various details and factors of a certain situation that they lose the ability to make any decisions regarding this situation. A manager is afraid of making a wrong decision, and continues their research endlessly, which blocks decision-making and cannot give an answer quickly in a critical situation. The consequences can include the loss of a business potential, a market share and even bankruptcy. Excessive caution and indecisiveness lead to inertia and status quo bias,¹⁸ when managers are weighting the risks of losing what is already available much higher than the chances of potential gains. In times of crisis, this cognitive competitive trap manifests itself

in threat rigidity.¹⁹ This results in disregarding the changes, even if they are crucial for business survival.

7. Competitive ignorance:

This trap manifests itself in convincing yourself, your employees and business partners that the firm and business are so unique that they have no competitors. At the same time, neither industrial espionage organized by competitors nor indicators of unfair competition are taken into account. Competitive illusions which ignore or lack a desire to evaluate and forecast the competitiveness of the firm can lead to inertia and loss of development perspectives.

What are the sources of unconscious biases underpinning cognitive competition traps? Management decisions can be made in the following ways: *intuitively* (based on the manager's feeling that such a decision is correct), based on *professional judgment* (i.e., conditioned by knowledge or accumulated business experience), and *rationally* (using an objective analytical process). However, intuition and unconsciousness are always major parts of making managerial decisions. "Making a decision is a psychological process. We all know from experience that human behavior is not always logical. Sometimes we are driven by logic, sometimes by feelings. Therefore, it is not surprising that the methods used by the manager to make decisions vary from spontaneous to highly logical... It is important to remember that the manager is influenced by such psychological factors as social attitudes, accumulated experience and personal values."²⁰

Not surprisingly, up to 90% of our decision-making happens in the unconscious mode,²¹ and hence are subject to unconscious biases. These are systematic patterns of deviation from rational thinking, when people are guided only by feelings, subjective experiences and values. "*Unconscious bias* ...is a *systematic thinking error* that can cloud our judgment, and as a result, impact our decisions. ...Confirmation bias causes us to look for evidence confirming what we already think or believe in and to discount or ignore any information that may support an alternate view... This can lead to poor decision-making, missed opportunities, and negative outcomes."²²

In contrast, rational management decisions are made based on available data and information, an understanding of all risks and their implications for the business, and only a residual risk, i.e. the one remaining after implementation of all the necessary mitigation steps, is accepted. These are rational decisions made following a certain algorithm, with the determination of the causes of an existing problem and limitations for its solution, development of alternative solutions and their evaluation, selection and implementation of the most optimal of them, in the opinion of an entrepreneur. Rational decisions regarding competition can be: *reactive* – when an entrepreneur has already encountered competition problems and is

forced to react to them; *proactive* (anticipatory, preventive), i.e. those that contribute to the success of a business and achievement of its competitive advantages, creation of the necessary competitive environment, driven by preventive actions; *inactive* – actions focused on preserving the current state of the firm's competitiveness, methods and approaches to competitive management; *preactive* – oriented on the future, related to the development of effective competitive strategies and an action plan for their implementation; *interactive* – in order to build vision that is the most suitable for the company and makes it successful in long run. Such decisions often require an entrepreneur to go against trends, traditions or advice of business partners or business advisors.

However, even the rational decisions of entrepreneurs/managers do not protect against the competition traps. When making decisions in a competitive environment, an entrepreneur is almost always faced with knowledge asymmetry with respect to competition, incompleteness, inaccuracy or absence of any information about the competition, the market landscape.

Incomplete knowledge of competing players about each other, the general state of the market, the competition environment of the firm, etc. is generally a norm for a business. Competition information is collected at time t , and checked for truth, systematized and generalized, turning into knowledge, later, e.g., at time $t+1$, when some information has already lost its relevance. The same happens with the adoption of management decisions: due to incomplete knowledge, managers cannot predict all possible events related to competition now in the future. The incompleteness of knowledge of competition is especially associated with the instability of the economic situation, numerous restrictions on doing business (including regulatory ones), and unexpected and unpredictable events. In addition, every entrepreneur has a framework of information protection actions.

Furthermore, unreliability of business knowledge can be deliberately imposed by competitors and is one of the methods of conducting unfair competition and even competition wars. Information obtained from mass media, social networks and even from professional consultants who have insufficient expertise or are misguided by the data available in public domain (quasi-consulting) may be unreliable if it has not been verified by qualified experts and supplemented with the company's knowledge.

Knowledge limitations are typical for start-ups and market newcomers. The lack of specific knowledge of entrepreneurs or managers can be a result of gaps in managerial training indicated through: 1) ignorance of new methods of competition diagnostics and analysis of competitive situations; 2) inability to anticipate hidden illegal and unethical actions of competitors;

3) impossibility to predict a business (firm) development, especially in conditions of uncertainty of the competitive environment; 4) incompetence in developing competition strategies and choosing methods of their implementation.

As such, it is not about the asymmetry of information, but rather about the asymmetry of knowledge, i.e. concentrated, processed and systematized information. If availability of information can be sufficient to make regular management decisions, knowledge is required for strategic business management. The consequences for a business management and its competitiveness in conditions of knowledge asymmetry are much worse than from the actions in the situations of information asymmetry. Constantly falling into the same situations, repeating the same mistakes can have devastating consequences in the long run.

2. Price competition traps

This is the most known and well-studied competition trap. Typically, scholars analyze the trap of price competition, i.e., price cuts to stimulate demand. A market leader can start a price war in order to suppress the economic activity of competitors. But it can also be initiated by a small enterprise that challenges other players in order to survive competition. Faced with aggressive pricing by competitors, managers instinctively react by lowering prices. Those who do not have an opportunity to reduce prices due to high production costs incur losses, often go bankrupt and leave the industry. Then prices rise again, and the initiator of the war compensates for the losses and excess costs associated with crowding out the competitors. However, constant price manipulation undermines the financial stability and reputation of the aggressor itself, complicates its own planning and entire management process. Buyers may question the quality and functionality of products, and in fact the reputation of the business. Constant price reduction can train customers to anticipate it: the most patient buyers will postpone their purchases until the next price reduction. If competitors can take precautionary measures, the price war turns out to be ineffective, and the firm falls into a dead loop – a process of rapid decline of the business, which has entered a vicious circle of failure.

As noted by J. Byrnes of MIT “a price war is the ultimate in self-destructive, lose-lose behavior... This is an invitation to lose your profitability for two reasons: first, your competitor probably will up the ante with another price cut, setting off a viscous cycle, and second, you are essentially training your customers to hammer you on price at every turn...The real win strategy – for both customers and suppliers – is to turn the price war into a value war.”²³

We will have the opportunity to confirm or refute this opinion by observing the recent managerial steps of Elon Musk: the head of Tesla introduced significant discounts at the end of January 2023. Is this a sign of panic due to weakening demand or a new strategy against competitors who may not be able to cope with the price reduction? With the healthy profit margin enjoyed by a \$450 billion worth auto manufacturing market leader, Mr. Musk has room for this fight. But with a global recession looming, this may not be enough to achieve the goal of global market dominance.²⁴

3. Disruptive competition traps

A major threat for a business is the trap of disruptive competition driven by disruptive innovation.^{25,26} At a first glance, innovative development is beneficial for everyone, i.e., businesses, industry and society in general. And the sooner it happens, the better. However, disruptive innovations, according to Clayton M. Christensen, "break" the key direction (core technology) of the organization's activities, and change the balance of values in the market: old products become uncompetitive only because the former parameters of competition are now unimportant to a buyer, and old business models become incompatible with the innovative ones. As disruption occurs, innovative companies threaten, destabilize, and displace incumbent firms from the market.²⁷ If the established players fail to provide a timely and effective response, and rather continue to make decisions in favor of "old" technologies, disruptive innovation and disruptive competition can completely destroy their business. Radical changes in innovative management are needed in such cases.²⁸

Even before Christensen, this problem was investigated by R. Foster,²⁹ who recognized that the majority of managers of successful companies assume that in the future significant changes will be unlikely, innovations will be unpredictable, risky, unmanageable and slow. Therefore, you need to focus your efforts on the economic efficiency of current activities. However, companies, lulled by the comfort of high performance and management achievements, become blind to their fragility, and discover problems too late and lose.

Other companies, on the contrary, believe that future changes will develop in line with certain patterns, innovations will be inevitable and manageable, and no matter how risky they are, the lack of innovation is even more risky. The changes blind the management, and their beliefs are not always based on understanding of S-curves. The latter indicates not only progress due to costs (investments) in the development of a new product or process, but also limitations in the upper part of the S-curve, when further development of the business becomes more and more costly. The firm will

either have to increase its technology spending at a faster rate or accept a lower growth pace. A gap with its almost inevitable consequences on competitiveness is approaching. Management's ability to recognize constraints and change development direction becomes crucial. It is not by chance that the S-curve is also called the "curve of the blinded" or the "curve of the intruder (attacker)", depending on the observer's point of view. The fundamental dilemma is that it always seems more economical to protect an old business than to support a new one, at least until competitors pursuing the new approach gain an advantage.

The traps of disruptive competition are not easy to overcome. First, few companies detect the threat of disruptive competition in a timely manner. Even if this is done at an early stage, market leaders often see the loss of price-driven customers and the opportunity to focus on the most profitable ones as beneficial. Second, managers rarely imagine the potential of a completely new market, and therefore rarely outfight disruptive newcomers. Third, even after identifying a disruptive threat, many managers are reluctant to reduce existing fixed costs as they are unable to imagine that the future dynamics will be different from the current one. It is a common misconception that a business has invested too much in infrastructure, systems and talent to move from a successful business model to an inferior, disruptive alternative. As a result, long-standing successful companies demonstrate deteriorating performance and eventually leave the market.³⁰

An opportunity to test this assumption will come up in the near future. In late November 2022, the American artificial intelligence laboratory OpenAI presented its ChatGPT platform which is based on the advanced neural network model GPT-3.5. ChatGPT is considered to be the most advanced chatbot that can answer questions in an understandable language, and a user does not need to open numerous search queries to get a meaningful response to their query. This worries Google: not only has the corporation had the task of creating products to compete with the ChatGPT chatbot and related DALL-E digital images creation technology, but it has also begun testing several new artificial intelligence tools, including a chatbot called Apprentice Bard. However, Google is in no hurry to completely replace the traditional search engine with artificial intelligence tools.

Microsoft also wants to be involved in the development of ChatGPT: in March 2023, the corporation updated its Bing search engine (with only a 3% share in the search market globally, but 18% in USA), adding an option for presenting search results in the form of full answer instead of the usual list of links. Microsoft also plans to use OpenAI-GPT in Word, Outlook and PowerPoint. This will allow Bing to enter a new level of competition with Google and even begin the destruction of the Google search empire.

However, Microsoft does not plan to completely change the functionality of Bing either. Everyone understands that it will not be possible to defeat Google all at once. Millions of users will still need time to change their search preferences.

Furthermore, very often there is not one, but several potential disruptors on the market whose products are simpler, more convenient or cheaper than those sold by incumbent businesses. This creates a de facto price umbrella for some time, allowing many newcomers to enjoy rising profits in the respective market. However, in the future, price competition is developing among innovators. The most effective of these, the true disruptors, will refine their products and bring them to the high-end market, where they can once again compete with higher cost, established competitors. The disruptive effect drives every competitor, both incumbent and new ones, to the high-end segment of the market.³¹

According to many scholars, creating disruptive innovation is not a linear process or methodology, nor is it a strategy. When we aim to create a disruptive innovation, the so-called disruptive thinking, i.e. the need to act contrary to what is expected, comes into play.³² As a result, we lose a sight of opportunities for incremental innovation, i.e. small changes to existing products or services, e.g. new colors, flavors, functions, benefits or aspects of customer interaction that are relatively quick and easy to implement. "The principle behind "incremental" is much more strategic and goes much deeper than the term suggests. Small tweaks, gelled together with the right mindset and approach, are often what actually add up to big breakthroughs." Between incremental and "disruptive" innovation lies sustaining innovation. Incremental and sustainable innovation are the steps that are too often overlooked.³³

Finally, there is also a social dilemma often faced by innovators: are we practicing "creative destruction" or "destructive creation"? J. Schumpeter treated "creative destruction" as renewal of the dynamics of society driven by innovations, which leads to higher economic development and increased well-being. The process of "destructive creation", on the contrary, becomes a game for the few to make money, capture markets, dominate and strive to achieve monopoly positions, undermining the foundations of effective and fair competition. Where is the point of intersection between creative and destructive? How not to fall into the *trap of destruction*? What should be the balance between technological choices and the social consequences of innovation? ³⁴

How do leading firms respond to disruptive challenges and protect their business? In practice, they either repel the attacks of a new market player, offering customers even better services or products at comparable prices,

thereby strengthening the main business or even creating a new competitive innovative business, or consolidate the market, i.e. one of the leading companies acquires this new participant.³⁵ If incumbent firms continue to make decisions in favor of "old" technologies, disruptive innovation and disruptive competition can completely destroy their business. Radical changes in innovative management are needed.³⁶

4. Platform competition traps

The platform business models are dominating contemporary economies. Digital platforms provide matchmaking services across most industries, changing the nature of how the economic activity is organized and how today's firms operate.³⁷ Digital platforms contribute to: (a) reduction of the transaction costs related to interaction between the customers and suppliers; (b) reduction of time to introduce a new product to the market; (c) the emergence of a network effect of a bilateral market in a situation where two groups of users (usually product creators and consumers) create added value for each other receiving mutually beneficial advantages; (d) ability to work in several markets at the same time, facilitating the process of creating a unique value proposition; (e) creation of ecosystems within industries.

However, the activities of platforms often create a trap of concentration of power in the hands of digital giants, their monopoly position, dominance over rivals, high economic barriers to enter a platform. For example, Alphabet Inc. currently controls about 90% of the market of search engines,³⁸ which guarantees its dominance in the market of search advertising.³⁹ With a slightly smaller share, but no less obvious, is the dominance of Meta Platforms Inc. (Instagram, Facebook) in the social networks and media advertising market. Some researchers explain this by the scale effect or the additive effect.⁴⁰ However, most scholars pay attention to the anti-competitive behavior of digital platform operators. Its indicators are:

- overaggressive competition, e.g., Amazon currently controls 70% of online sales in the United States, which has caused the closure of many brick-and-mortar stores throughout America, and uses the data of its suppliers to launch its own competing products and prevent these competitors from growing into a larger business. In addition, Amazon is a platform operator that simultaneously promotes its own products on this platform;
- the possibility of destroying a competitor's resources, e.g., in the case of Apple, any company that places its product on a digital platform realizes that the maximum profit from using its innovation is achieved until the owner creates a replica for this platform;

- denying users access to data, i.e., in many cases, the consumer's disagreement with the processing and use of his personal data and actions on the platform results in a deny for access to the platform;
- mergers and acquisitions (for example, Facebook's acquisition of its major competitors, Instagram and WhatsApp), and acquisition of start-ups in particular;
- significant barriers for market entry, e.g., in the US market, there are only two platforms in the mobile application segment, Google and Apple.

By choosing to work on a platform, companies, especially small and medium-size businesses, open new opportunities of access to a wide range of consumers, but they are forced to play by the rules of platform competition, and to obey the authority of the platform. The danger of a new type of monopolization stimulates countries to improve existing antitrust legislation or to develop new ones, because the tools of traditional antitrust regulation, those developed in the time of industrial society, are ineffective in cases against information and communication platforms.

5. Internal competition traps

A firm is quite vulnerable to the traps of internal competition. The professional development and graduate business programs worldwide recommend executives and business consultants to use the Boston Consulting Group (BCG), General Electric and/or McKinsey & Company (GE/McKinsey) models (matrices), core competencies, and other tools for strategic analysis.⁴¹ All of them involve positioning and determining the prospects of the firm's strategic business units (SBUs) in industry and within the global competitive landscape. But competition also arises between SBUs themselves: they compete for investments, strive to be the first to create a new generation product using different approaches, while aspiring SBU leaders compete for promotion. At the same time, internal competition is often a result of redundancy of activities performed in parallel (basically duplicated) by different structural units to cope with technological and market uncertainty.⁴² Sometimes, the existence of such "reserve" units is justified. For example, the release of trial batches of goods can be prepared by several project teams, which compete in their search for the best option. In other cases, however, divisional competition is considered wasteful, harmful to morale, and indicates strategic management failures. In addition, a silo mentality can evolve, i.e., a competition between isolated units comparable to silo towers. It impacts the working environment and morale, making the divisions perceive each other exclusively as competitors, and decreasing their motivation for insights exchange and other forms of

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cooperation. This reduces work efficiency and demotivates employees. As a result, the firm's ability to successfully compete with external players is undermined.

Another trap of internal competition manifests itself in blindly following the experience of competitors, behind which the nimbus of success has been established. An illustrative case here is the context of General Electric, known for its experience in the development of competitive relations within a business organization. The main tool for this was the use of the stack ranking system and the life cycle curve. The latter was developed and first applied by Jack Welch at General Electric in the 1980s. It is also known as the "20-70-10" system:

- the best 20% of employees (or group A) are the most productive, full of motivation and open to new ideas, demonstrate charisma;
- 70% (group B) are vital for organization, but their prospects depend on the quality and reliability of their work;
- 10% (group C) are unproductive and subject to dismissal.

Consequently, the system ranks employees relative to their peers in order to reward top performers while weeding out underperformers; stimulates the activity of employees and everyone's efforts to demonstrate all their qualities; supports constant personnel development; results in development of high corporate standards stimulating efficiency and professional development of employees; creates a spirit of meritocracy.⁴³ During the 20 years of J. Welch's leadership, the value of General Electric increased by 4,000 percent, and his approach became one of the backbones of global corporate culture. CEOs of Microsoft, Uber, Yahoo, PepsiCo and many other companies tried to adopt this positive experience and implement it in their own corporations.

However, over time, it became clear that that the anticipated success from the stack ranking system does not prove true: employees are focused on competition with each other, and not on competition with other companies; the system contradicts the ideas of team building and artificially limits talent development; if we assume that the management got rid of all inefficient employees and left only the best in the company, in the future it will be necessary to look for "lower class employees" among these best, who will need to be fired, which creates a sense of unfairness.⁴⁴ The result of the introduction of this system was the growth of internal competition and interpersonal conflicts of personnel, so many companies recognized the stack ranking system as discriminatory. It is important that even General Electric abandoned stack ranking eventually.

Conclusion and Managerial Implications

The presence of a substantial number of competition traps, as we can see, creates a serious threat to the company, and affects performance through deterioration of resources utilization, reduction of revenue and profits, reduction of market share, loss of most profitable customers, etc. How should the businesses act?

Unconscious, or cognitive, biases are most often studied by psychology and behavioral economics researchers, who have developed numerous scientific approaches to understanding the effects of biases on business decision-making, beliefs formation, and people's behavior in general. It is crucial to reduce such biases through modifying incentives. People generally act in their own interests, seeking to maximize realization of their potential during the lifetime. Many biases in decision-making may arise simply because it is more expensive to eliminate them than to ignore them. Therefore, it is necessary to make people more responsible for their decisions through a change in the presentation of information or in the way judgments and decisions are made, and training that can effectively de-bias long-term decision makers.⁴⁵

However, more and more organizations raise awareness of this with the help of education, unconscious bias training. This usually involves teaching people how bias works and giving them experiences that reveal some of their own biases. Harvard Online Implicit Association Test (IAT)⁴⁶ is one of such tools. Both scientists and business practitioners highlight the importance of education and awareness of unconscious biases. For business leaders, it is extremely important to go through the six step process of Recognition – Study – Recognition – Understanding the consequences – Confronting one's own prejudices – Increasing the productivity and reputation of the organization.⁴⁷ "Managers should be aware of the psychological aspects of unconscious bias in general and especially be aware of their own pre-existing biases and tendencies. It will help minimize the risk of that bias when making any important management decisions."⁴⁸ Unconscious bias training gives managers the tools, experience and awareness necessary to navigate our minds.⁴⁹

Competition education is needed for informational unlocking of unconscious prejudiced views on competition, and avoidance of myths and fetishes of competition. This education can take various forms (corporate training, exchange of competition information in corporate networks, etc.), but it must be based on corporate systems for collecting and analyzing competition information. Moreover, the system of competition analytics should include not only diagnostics of the current competition situation for the industry and the market, but also forecasting the development of

competition, including in the distant future (competitive foresight). 90% of Fortune 500 companies use competitive intelligence (CI) for this purpose, and other businesses, large and small, grow their awareness of its importance in management decisions.⁵⁰ In any case, competition analytics should prevent the negative consequences of competition, including competition traps. Competition knowledge should be shared among managers and employees. At the same time, the more intense is the market competition, and the more dangerous are its risks, the higher the level of knowledge sharing should be.

The second and likely priority way of preventing competition traps is the development and promotion of the ***culture of competition based on knowledge***. The latter, in the conditions of information and knowledge asymmetry, is to an extent a regulator of the entrepreneurs' economic behavior and helps to prevent the destructive consequences of decision-making driven by their unconscious biases. Culture of competition is based on the system of values, social and ethical norms and rules of economic behavior in a competitive business environment. Its source is education on competition, and the most important value component is recognition of the leading role of knowledge of competitors in making effective management decisions.

The knowledge driven development of the culture of competition assumes that entrepreneurs have a strong understanding of the following:

1) the nature of the modern firm as an intellectual organization, where "every individual becomes a microcosm of the whole, they reflect the whole through their behavior. Everyone is an individual reflection of the organization's thinking."⁵¹ Based on this, a culture of competition based on knowledge is a culture of an intelligent, learning business organization⁵² in the process of integrating knowledge of competition, turning it into competitive competencies. The latter are a set of collective and individual, formal and informal knowledge, experience, technologies and capabilities to make optimal management decisions; essentially, these are strategic intellectual assets of competitiveness. According to David Teece, "organizations and their employees need the ability to learn quickly and to build strategic assets. New strategic assets such as capability, technology, and customer feedback have to be integrated within the company. Existing strategic assets have to be transformed or reconfigured;"⁵³

2) the role of competitive knowledge and competences in ensuring the firm's dynamic capabilities "the specific capabilities that enable firms to adapt to rapidly changing environments and hold on to their competitive advantage. They are absolutely critical to a firm's long-term success;"⁵⁴

3) defining the culture of competition as a competitive advantage of a modern firm. In this context, expertise in competition becomes a factor in the transformation of existing and formation of new competitive advantages in the conditions of threats and challenges of a changing competitive business environment;

4) the importance of observing the formal and informal socio-ethical norms of business conduct in a competitive environment as a condition of achieving its goals. The socially responsible behavior of entrepreneurs in the field of competition is a factor in ensuring the loyal attitude of customers and partners, formation and development of a network of regular customers, contributes to the harmonization of relations with the public, which ensures a high level of business competitiveness;

5) the expediency of an omnichannel approach to determining the sources of competition knowledge and information that form the firm's dynamic capabilities. In the process of integrating competition knowledge and information, the firm should not stick to its own competition analytics. It is necessary to diversify the channels of obtaining expertise on competition, among which one of the most effective is competition consulting – professional business assistance in the formation of strategic intellectual resources of competitiveness and competitive advantages.

Authors

Oleksiy Osiyevskyy is an Associate Professor of Entrepreneurship & Innovation at the Haskayne School of Business, University of Calgary, where he also serves as the MBA program director. Oleksiy leads the Global Business Futures Initiative, an emerging thought leadership center aimed at preparing established businesses to thrive on disruption in the global marketplace. In his scholarship, supported by the Future Fund Fellowship, he concentrates on the problem of achieving and sustaining firm growth and prosperous longevity through successful engagement in entrepreneurial strategies. Oleksiy founded his first Internet startup back in 2003, during his undergraduate studies. Since that time, he has been actively engaged in real-world business practice across the globe as an entrepreneur, manager within large companies, consultant and educator. Oleksiy has mentored, co-founded, invested in, and served on the boards of numerous startups within a broad range of industries (education, food, medical devices, transportation, e-commerce, among others), and engaged in strategic innovation projects within large organizations.

email: oosiyevs@ucalgary.ca

Liudmyla Shevchenko is a professor of the Economic Theory Department at the Yaroslav Mudryi National Law University in the city of Kharkiv (Ukraine). Liudmyla is an academic advisor (guarantor) of the Business Economics

educational program for training professional economists for new-type firms, constantly introducing innovative forms and methods of teaching. She is also the deputy editor-in-chief of the journal Economic Theory and Law. In her research, Liudmyla focuses on the problems of new forms of entrepreneurship, business competitiveness, and strategic business consulting. Liudmyla participates in real business practice as a consultant for Ukrainian firms and organizations on strategic development issues.

email: l.s.shevchenko@nlu.edu.ua

Olha Marchenko is a professor of the Economic Theory Department at Yaroslav Mudryi National Law University in Kharkiv (Ukraine). Olha is an academic advisor (guarantor) of the educational program Business Consulting for the preparation of Masters in economics, which focused on the implementation of the latest methods, models and forms of effective, competitive business into professional activity in the conditions of the digital economy. Olha is a member of the editorial board of the Ukrainian scientific journal Economic Theory and Law. Innovative models of entrepreneurial activity, digitalization of business, virtual forms of business activity, consulting 4.0. are Olha's priority research interests. Olha provides professional consulting assistance to enterprises and organizations for solving the economic problems of their functioning.

email: o.s.marchenko@nlu.edu.ua

Yurii Umantsiv is the head of the Department of Economics and Competition Policy of the State University of Trade and Economics, where he is also the guarantor of the second-level higher education program «Antitrust Management». In his research, Yurii focuses on the problems of the methodology of economics, competition and competition policy, as well as the functioning of corporations in conditions of global instability. Yurii provides consultations to companies in the financial and non-financial sectors and actively cooperates with a number of state authorities and local governments. The scientist is a member of a number of editorial boards of scientific publications of the USA and Ukraine. Yurii trained ten Doctors of Philosophy. The scientist was a participant in numerous international scientific and practical symposia, conferences and trainings. Yurii constantly implements innovative teaching methods, ensures the integration of education, science and business.

email: y.umantsiv@knute.edu.ua

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