Polish Business Management: 
A Contredanse of Theory and Practice

Andrzej K. Koźmiński

In the early 1990s, when I was spending most of my time teaching and conducting research at the UCLA Anderson School of Management, my dear friend and co-author of numerous publications, Professor Donald P. Cushman from the State University of New York in Albany, wrote to me: “Do not waste your time here, focus on what is happening in Poland, in this one-of-a-kind ‘management laboratory’ developing there at the moment. In order to catch up, Poles will need to absorb the entire acquis of management theory and practice over a very short period of time. It is an unprecedented situation, so go and watch, explain, participate”. I realized that for a researcher interested in management, it was indeed an unparalleled opportunity and one I simply could not miss. The fruit of my observations was the first book on the business management transformation process in Poland and other countries of “the Socialist bloc” to be published in the U.S. (Koźminski, 1993), followed by numerous other studies and publications (Koźminski, 1998; 2008a; 2008b; 2008c; 2013; Koźminski i Yip, 2000).

Furthermore, I have gained extensive practical experience as a member of several supervisory and management boards, in consulting, and education and in managing a large private university and postgraduate education centre. Today, when I look back at business management in Poland, developed within a market economy over a period spanning more than a quarter of a century, I know that my late friend was right: we have indeed come a long way and it has been an exciting process. I walked this path together with a growing and developing group of economists and management experts. We strove to assist managers as they braved new and increasingly tough challenges. Admittedly, there have been casualties along the way. Numerous companies have gone bankrupt and countless managers have not lived up to expectations; new companies and new managers would soon take their place. The ultimate result is reflected in
different economic and civilizational development indicators. We have accomplished a “civilizational leap” and landed in a new era, outstripping others from within our peer group of Central and Eastern European countries. How has business management contributed to this success?

Indeed, “management matters” and nobody would dare question this dictum today. It has been unambiguously confirmed by the results of the World Management Survey pertaining to the prevalence of good management practices and their impact on both the economic results of enterprises and on economic growth (Bloom, Genakos, Sadun i Van Reenen, 2012; Bloom, Sadun i Van Reenen 2012). A total of 8,000 organizations (businesses, schools, hospitals) from 20 countries, including 350 from Poland (the sole representative in the post-socialist group) took part in the survey. In terms of the quality of business management, Poland ranked 12th, which was almost right in the middle among the countries surveyed. The United States, Japan, Germany, Sweden and Canada were the leaders, while India, China, Brazil, Greece and Argentina ranked in the bottom group. Mexico, New Zealand and France were all ahead of Poland, but the country outperformed Ireland, Portugal and Chile. This can clearly be considered a success, given that only 20 years prior to the survey, Poland was still recovering from the bankruptcy of the socialist experiment.

The results of the World Management Survey also proved beyond doubt that private entities, both in the corporate sectors and social services sectors (such as education and health care), are managed much better than state-owned or state-controlled organisations. Given that the share of the public sector in Poland remains substantial, there is still plenty of room for improvement. Therefore, it seems all the more important to examine the factors that have been conducive to the relative success of business management in Poland. In the subsequent stages of political and economic transition, these factors can be found both in the competitive pressure to which the practice has been subjected and in the development of business management theory and of academic centres where the theory is taught.

During the interwar period, Poland far outclassed many other European countries in terms of the level of development of management theory. Numerous Polish experts are listed among European pioneers of the European organization and management theory (Martyniak, 1993). Widely acclaimed Karol Adamiecki was the “Polish Taylor” and economic universalism had several other prominent representatives (P. Drzewiecki, Z. Rytel); some can be considered the precursors of the human relations school (Stanisław Bieńkowski, Józef Zieliński). Back in the day, the majority of management theorists were practicing managers employed in companies, while organization theory
Andrzej K. Koźmiński was taught to students in several universities of technology and business schools in Warsaw (Warsaw School of Economics), Krakow, Lwów and Katowice.

In a short period of post-war reconstruction (the three-year plan of 1947–1949), pre-war management centres were re-established at universities of technology and economics; they became the breeding ground for engineers, who were subsequently entrusted with managerial positions in state-owned companies. Within the “planned economy”, the practice was completely dominated by bureaucratic procedures, political pressures, informal schemes and machinations. Management science was tolerated, albeit to a limited extent: clear references to Soviet principles of production management had to be made and Western “bourgeois” theory was reviled (e.g. Chajtman, 1958). This approach proved relatively short-lived: it predominated from the 1940s to the “political thaw” that started in October 1956. Nevertheless, it was a formative period for a generation of engineers who specialized in production organization; over the next few decades, mainly in the 1970s, they would join the ranks of senior management in Polish enterprises.

In the mid-1950s, under the auspices of Professor Tadeusz Kotarbiński, the Polish “praxeological school” of business organization and management developed. Its foundation was laid by Kotarbiński’s Treaty on Good Work (Traktat o dobrej robocie, 1955) and it subsequently evolved through the works of Jan Zieleniewski (1969) and researchers who worked alongside him, inter alia Jerzy Kurnal (1969) and Stanisław Kowalewski (1967). This theoretical strand was rooted in praxeology, i.e. the theory of the efficiency and purposefulness of human action. It had never resonated outside of Poland, mainly owing to the linguistic barrier, but also to the tremendous international popularity of Parson’s action theory (e.g. Parsons and Shils 1951), developed by himself and his fellow researchers in the 1950s and 1960s. However in Poland, the praxeological theory played an important role; it triggered a consequential scientific discussion on business management, resulting in numerous empirical studies and attempts at developing a modern approach to training managers.

In cooperation with the International Labour Office and the Ford Foundation, the Training Centre for Managers and Executives was established in Warsaw in the late 1950s, endowed with an extensive and systematically updated collection of Western literature on business management and subjects related to it. In the early 1970s, the Faculty of Management was created at Warsaw University. Its curricula at least partially drew from the global wealth of management knowledge. As early as the 1960s and 1970s, numerous fundamental publications on business management were translated into Polish, e.g. books by Simon (1976), March and Simon (1964), Drucker (1976), Hair (1965), and the textbook by Koontz and O’Donnell (1969). Despite the widespread and
sometimes mindlessly reiterated opinion, business management theory in Poland was by no means intellectually, or even physically, cut off from the world. During the 1970s, following an initiative of the U.S. government and several foundations (including Ford, Fulbright and Eisenhower), postdoctoral scholarships at America’s top universities were offered to over 100 young researchers of economics and business management. Nearly all of them were academics practitioners and some became finance ministers of democratic Poland. As a Fulbright scholar, I spent the academic year of 1971–1972 at Carnegie-Mellon University in Pittsburgh.

By the 1970s, Polish scholars were frequently invited as guest lecturers to American and Western European schools of business and economics, and many of them participated in seminars and conferences abroad. These contacts and exchanges resulted in research projects and numerous publications. Contrary to the expectations of innumerable market economy “missionaries”, who came to Poland after the collapse of the Communist regime and were dubbed (not without a hint of irony) the “Marriott Brigade,” the country was certainly not an intellectual desert in the field of business management theory. This proved a valuable asset and the substructure on which the strongest sector of business management education in the post-socialist block developed after 1989 (Kwiatkowski and Koźminski, 1992). At the onset of the political transformation, the problem lay in that theory had never been translated into management practice within the socialist economy. In 1989, practitioners had to start almost from scratch.

On the basis of research and observation of management practices, I have identified subsequent phases in the development of business management in Poland since 1989. The first phase, the refinement and development of real managerial skills, was a struggle for survival in the conditions of “wild capitalism” that took over immediately after the political bankruptcy of “real socialism”. Both managers of drowning state enterprises and aspiring entrepreneurs had to fight their way through it. The period was characterized by:

- Absence of an institutional and legal framework for the rapidly developing market economy;
- Galloping inflation (over 700% in 1989), collapse of the existing banking system, absence of qualified financial intermediaries and “dollarization” of transactions;
- Collapse of Comecon (Council for Mutual Economic Assistance, the common market of socialist countries) and the disintegration of state and cooperative distribution channels;
- Exposure to foreign competition as a result of internal currency convertibility and later its full convertibility as well as the elimination of tariffs;
“Credit trap” into which state-owned companies fell as a result of investment decisions made by Communist authorities, which were followed by reckless initiatives taken at the start of the transformation process. It led to debts that often exceeded the value of assets held.

Such was the situation in which many business managers found themselves in the first pioneering period of Polish capitalism. One of my American colleagues admitted that, when faced with such circumstances, even a Harvard MBA graduate would have given up before the week was out. Polish managers, though, could not boast the knowledge or skills of Harvard graduates. Instead, they had obsolete products that nobody outside of Poland wanted to buy, outdated technology, equipment and machines that kept breaking down, non-existent distribution channels, plus a system of production and stock management that defied rationality. Indeed, one could hardly expect rationality, given activity-based costing was not practiced at all. Old habits were slow to die out, which meant the preponderance of strongly hierarchical organizational structures, red tape, belligerent trade unions obsessing about conspiracies and supposed attacks against the interests of workers. Trade union activists, who by virtue of legal provisions were generously remunerated by their employers, further inflamed the atmosphere. Employment in the majority of enterprises was several times greater than in equivalent Western companies and in certain cases, even ten-fold.

The country needed an act of “creative destruction”. Many companies went bankrupt and many were looted or appropriated by former top party officials trying to safeguard their interests. Nevertheless, a large number of enterprises managed to survive. Which business management skills allowed them to do so? Which strategies and tactics did they employ to pull through? For many companies, the starting point was a change in mind-set. They renounced the Communist mentality of the “sellers’ market” and focused on customers, products and distribution channels. The first step consisted of limiting their portfolio to the most popular products and eliminating those that had proved difficult to sell. Reaching out to clients was the subsequent step and many enterprises would rely on direct contact, even in the form of direct sales from trucks parked on the streets of villages, towns and cities. Direct contact with customers allowed managers to understand customers’ expectations and to modify products accordingly, for example, through a change of packaging; most importantly, it helped to adjust prices. After several decades of imposed, “official” prices, this was a true revolution.

The second great discovery in that time was financial capital: the imperative of maintaining liquidity and the awareness of the cost of money in time, which was particularly
important during a period of high and rapidly growing interest rates. Those who employed primitive methods of securing their receivables, such as down payments, guarantees or payments in advance, or settling transactions in U.S. dollars, managed best in those unpredictable times. Liquidity was sustained through the sale of redundant assets: company-owned holiday resorts, apartments, clinics, community centres, etc. as well as the liquidation and sale of assets of bloated auxiliary services (renovation and construction teams, utilities, warehouses, etc.). This also marked a real revolution in mentality, as in the “socialist economy” currency was only a unit of measurement used for the purpose of calculations, while socialist enterprises strove to maximize the volume of their tangible assets, whatever they were.

They also sought to increase employment, given the shortage of workers who were to make up for the absence of other factors of production, mainly the lack of access to modern technology and efficient methods of organization. Given the low productivity levels of Polish enterprises (at the time, approximately 30% compared to German industry), this meant high over-employment. The survival of enterprises after 1989 was often contingent on how quickly they were able to carry out redundancy actions. It was necessary to negotiate agreements with powerful and militant trade unions, which had recently contributed to the fall of the Communist regime and gained political clout. Political skills inherited from the previous system proved useful in this respect: negotiating and working out compromises, building coalitions, blocking information, misinforming, exchanging “favours”, exerting pressure and recourse to blackmail. Such skills and connections proved instrumental both in working out agreements with trade unions and in the search for different forms of state support. For example, this included the redemption of a part of tax debt, guarantees and preferential loans, public procurement, etc. New managers of post-socialist behemoths with roots in the trade union movement did particularly well in this game.

In those first years of political and economic transition, the successes of companies and their managers were contingent on their shrewdness, their willingness to fight and take risks, as well as the ability to communicate with others, both individually and collectively. Victory went to those who were the first to understand that the collapse of the old system offered an opportunity for themselves and for their country, and to those who had at least an intuitive understanding of the laws governing the market. They later developed and supplemented their skills with the necessary practical knowledge as they went along. Their successes, which were insistently promoted by the media, encouraged hundreds of thousands of young people who aspired to become managers and entrepreneurs. It gave rise to an unprecedented mass interest in university studies and training in the field of business management. We were able to meet the
demand in terms of business organisation and management theory, as well as related disciplines (economics in particular).

Poland did not exit the period of Communism as a blank slate. As could be expected, the quality of services provided by educational organisations was rather inconsistent. Several high-class MBA programmes were organised during that period (in the majority of cases) as joint projects together with prestigious foreign universities. A large group of more or less competent imitators throughout the country followed in their footsteps. Academic centres, where organization, management and macroeconomics had been taught under the previous regime, developed immensely both in terms of quantity and quality. They published general management textbooks that focused specifically on the post-socialist transformation and presented the results of research carried out in Poland.

Foreign publications on management, aimed at both academics and dilettantes, mushroomed in the same period. Polish authors produced countless volumes on subjects related to management. Undergraduate, graduate and post-graduate management programmes proliferated and were taught in hundreds of new schools, mainly (although not exclusively) private institutions including universities of technology and agriculture. Many of them, particularly at the beginning, were of poor quality. With growing competition in the education market, schools gradually improved the quality of educational services provided, developed areas of specialization or else were forced out of the market. Postgraduate and doctoral studies enjoyed a growing popularity, also among practitioners. All in all, the quantitative and qualitative changes in business management theory and practice coincided and sustained each other.

The subsequent stage of Poland’s “management revolution”, i.e. functional restructuring, took place in the context of on-going standardization. Inflation was being gradually and effectively curbed, full convertibility of the currency was introduced and the foundations of the financial system were laid. These were comprised of the establishment of a central bank, the stock exchange and state-controlled commercial banks. The legal system was gradually adjusted to the requirements of the market economy, even though implementing legal provisions still required substantial improvements. Innovative information and communication technology (ICT), consulting, auditing and legal services rapidly grew, along with training courses and development services aimed at business managers.

Above all, commercialization and privatization processes, often involving foreign investors, commenced. Consequently, enterprise evaluation and assessments of their
effectiveness were placed high on the agenda. Normal criteria for assessing the quality of businesses and management were introduced, such as market share, return on assets, value added per employee and EBITDA. Functional restructuring was the key to fulfilling these criteria to a satisfactory degree, more or less in line with the benchmarks for international competitiveness. The following functions were particularly emphasised:

- **Marketing**, which meant a change of mentality and the adoption of a new approach towards customers. It also required companies to establish a separate department in charge of market analysis and research, conscious development of distribution channels, planning and implementing promotion and advertising strategies;
- **Research and development**, or accelerating the product development cycle, adjusting products to international standards and market trends;
- **Production**, or catching up with international manufacturing standards in terms of quality, process liquidity and an efficient use of the factors of production (in particular, capital and labour);
- **Supplies**, or mastering the skill of choosing the best, cheapest and most reliable suppliers and partners on a global scale, combined with the art of establishing optimal relationships with them (durability vs. flexibility), as well as efficient logistics and supply chain coordination;
- **Finance**, namely the creation of a management accounting system with particular emphasis on cost accounting and the creation of a department of financial management and engineering capable of ensuring the professional management of capital and cash flows, financial risks and the currency risk;
- **Services**, or supplementing products with high value-added services and providing after-sales service.

Thus, defined functional restructuring had several common denominators. The first related to human resource management; the aim was to carry out a thorough modernization and professionalization of business management and consequently to introduce a strict functional specialization. Many managers who had successfully completed the “heroic” phase in their struggle for survival were not prepared to learn and subsequently fundamentally alter their mode of operation and behaviour. It was necessary to bring young people in and to train the management staff. The share of foreign capital facilitated the transfer of knowledge, provided that the aim was to train local staff to replace foreign managers. It was achieved through both in-house programmes implemented with the participation of Polish and foreign teaching staff and MBA studies at the world’s top universities, sponsored by multinational corporations and graduate and postgraduate studies pursued in Poland’s leading business management schools.
The second common denominator was the redesign of organizational structures. In socialist enterprises, they were absurdly vertical, multi-level and complex with middle levels burdened by cumbersome bureaucracy. Functional restructuring required that these structures be flattened out and trimmed down. It was not an easy task, given the widespread inertia of existing structures and their resistance to change.

The third common denominator associated with such functional restructuring endeavours was the effort to build (from scratch) a system for collecting, storing, discovering and processing information with the support of cutting-edge technology. This change was as much social and cultural as it was technological. Numerous habits had to be broken and many interests threatened. No wonder that countless companies have yet to complete this process of functional restructuring. Those that have managed to do so, usually as a result of strong competitive pressures, have been able to achieve at least the average European level of efficiency and subsequently have increased their value.

The functional restructuring of enterprises requires special support from both academics and experts. This support has been granted, to a large extent, by Polish specialists, many of whom have worked with international consultancy firms. They are graduates of leading Polish universities, where specialized centres have been established to teach and carry out research in corporate finance, marketing, logistics and production management. They conduct research and publish scientific studies, relying mostly on research grants as a source of funding. Cooperation with foreign centres and the presentation of research findings at international forums is becoming increasingly common. This has resulted in the acquisition of a wealth of knowledge and skills in the “hard” aspects of management.

Participation in the following phase of business management development in Poland has been limited to those companies that have proven capable of competing, if not in the first, then at least in the second international league. They operate in a relatively stable institutional setting and they can afford to sustain their presence within international financial markets and use high-end intellectual and human resources. The aim is to define the source of the company’s competitive advantage and to maximize its value. This is a classic and universal exercise in competitive strategy, widely recognised throughout the world. It involves the identification and mapping of key processes in the search for added value. As a result, the structure is “horizontally” redesigned around processes and the redundant elements, i.e., those that fail to increase the value are eliminated.

To a certain extent, it is a retreat from narrow functional specialization. In the unique dynamics of business management, any new change is the opposite of those previously
introduced and supersedes them almost immediately after the latter has taken root. An important result of the restructuring process is the incentive that stems from the joint “ownership” of processes, which generates direct personal involvement in the process itself and in its results. What can be considered typically Polish in this respect is the natural attachment to newly acquired specializations and unwillingness to multi-functional tasking. Other difficulties in implementing the restructuring process can be found in the organizational culture of Polish companies in which its three characteristic features can be identified:

- First, Poles are generally mistrustful. This hinders any form of cooperation and in particular, *ad hoc* contacts and any relations that are not tightly regulated. Processes are to some extent unpredictable and they require resourcefulness. Distrust urges people to simplify processes and eliminate certain activities as they fear the loss of their position.
- Second, Poles are individualists. They are reluctant to share rewards and achievements with others, which is inevitable in the case of joint process ownership.
- Third, Poles tend to avoid taking risks, especially in formal and official relations like at work. Organisations operating in a process system need to be fuelled by ingenuity, initiative and risk-taking, given that in general, the outcomes are not easily predictable.

Overcoming such constraints requires the reshaping of the organizational culture, which is in itself a poorly defined and long-term task with quite unpredictable effects. The success of such endeavours is more likely when teams leading the process are stable, if their members are highly qualified, enjoy professional renown and have gained experience abroad. Every process requires a strong and charismatic leader. Despite the evidence of such difficulties in a number of Poland’s top companies (operating mainly in high-tech sectors), process restructuring has been successfully completed. As a consequence, the level of their competitiveness has reached international standards.

Process restructuring requires a set of “soft” managerial skills: leadership, communication, interpersonal techniques, empathy and diversity management. They are forged in interdisciplinary teams and stem from interdisciplinary research combining business management, psychology and sociology. Fortunately, such research has a long tradition in Poland and has been conducted by numerous scholars: Doktór (1964), Sarapata and Doktór (1963) and Matejko (1959) to name a few. In response to the growing demand expressed by practitioners, it has developed under the influence of both contemporary American literature and of consulting (including coaching). Today, several centres
specialising in the sociology and psychology of business management, whose focus on practice is more or less evident, operate in Poland.

The following point concerns future challenges. Looking at the succession of crises and failures within the broader business environment and in business itself, it has become evident that the challenges lie in managing under conditions of uncertainty, or even generalized uncertainty about several important business operation parameters. Continuous improvement requires one to smoothly adapt to rapidly changing circumstances and operating conditions and to sometimes anticipate them. The meaning of strategy in conditions of generalized uncertainty changes. The goal is to gain a competitive advantage that would be as sustainable as possible, given the constantly changing environment and above all, to acquire adaptation skills.

Transformational leadership is considered the most important element of continuous improvement. It requires the ability to initiate and implement subsequent changes, adjustments and improvements as often as required by the rapidly evolving environment. It entails the ability of forward thinking and the creation of a vision consistent with the new conditions and circumstances, as well as the capacity to encourage one’s co-workers to commit to the implementation of the vision. It also requires the aptitude to create appropriate institutional forms of action, combining order with flexibility. This arguably requires consummate management skills and is often associated with mavericks and charismatic leaders, of whom Jack Welch is considered the archetype.

However, no leader can “go it alone” and singlehandedly transform large complex organizations operating in rapidly changing competitive markets. They always need a complex and competent analytical team and above all, a powerful group of several dozen knowledgeable, carefully selected associates. They need to be well informed and fully committed to the implementation of a common vision and able to interact harmoniously as part of a team. The ownership of the subsequent visions must be shared among everyone within large organizations. It is no coincidence that the role of transformational leaders is compared to the role of teachers and trainers. Social communication is key; change must be communicated effectively and persuasively. The ability to work in a team is a requirement at each level of the organization. In addition to the senior management team, particularly important are the functional teams inherited from the restructuring process and autonomous teams implementing carefully defined projects.

Transformational leadership generates open organizations with increasingly blurry contours. They are integrated within constantly evolving and pulsating networks. Value is increasingly generated at the interface between companies that work together and
are sometimes bound by various capital links. Transformational leadership is associated with the specific skills of inter-organisational management. This field of management practice and theory is becoming increasingly prominent (also in Poland). Polish enterprises, in particular those which are large and very large, wrestling with the consequences of crisis, operating in constantly shrinking markets and subjected to strong pressures of technological change, are currently learning difficult, painful and costly lessons. This will instil in them the ability to continuously improve their management prowess and transformation leadership skills. Whether they manage to do so will depend to a large extent on the work undertaken in previous stages, during which they were expected to develop their business management competence, in particular during the functional and process transformation stage.

Management under conditions of generalized uncertainty requires one to master methods of high speed management, continuous improvement and ensuring organizational agility. Rapidly evolving challenges (opportunities and threats) posed by the environment must be responded to quickly and flexibly. The stakes are high for strategic management as it means that strategies need to be constantly reformulated and the associated costs minimized. Research and analysis into strategic business management are conducted in several academic centres in Poland where, for example, the company's cultural DNA is examined and reflected upon. Research findings ultimately find their way into practice through consultancy services and specialized training sessions provided for top executives.

Within the last two decades, Polish management has gone through an intensive process of knowledge and experience accumulation, which in Western countries had taken more than three times as long. The Polish management laboratory has certainly lived up to Donald Cushman’s forecast.

It would be difficult to imagine that one person could have gone through all the subsequent stages over the past twenty years, even though a few noteworthy exceptions could probably be named. Overall, the learning process in the conditions of growing competitive pressure was difficult and painful. Numerous managers would make their way through earlier stages (especially the struggle for survival), only to stall later. There have been personal failures, but also those that followed the bankruptcies and transformations of firms. However, each phase brought with itself a wave of new knowledge and skills that were assimilated by the subsequent teams of managers. We cannot underestimate the contribution of the Polish sector of business management education and training received by some managers abroad.
Another important contributing factor was the transfer of knowledge and management skills into Polish subsidiaries and branches of foreign companies, as well as Polish enterprises acquired (in whole or in part) by foreign capital. When searching for a common denominator of these processes of tremendous change, one must not overlook the fundamental transformation of organizational cultures. Cultural changes are long-lived and difficult to control or, as claimed by some, are altogether uncontrollable. Cultures cannot be designed in the same manner that technical devices or organizational structures are. They evolve as a result of macro-social changes and socialization processes taking place within organizations. These transformations have been dramatic, as the “socialist economy” and the “socialist enterprise” had developed their own, strong and deeply entrenched organizational cultures. They allowed the survival of individuals and groups operating under the conditions of an absurd system, even though they seem extremely dysfunctional from the rational point of view of the market economy and competition. The evolution of organizational cultures must run parallel to the advancement of skills and competencies.

Drawing up an inventory of the potential of Polish management theory should prove helpful when trying to grasp the pace of these changes. The following is the typology of 21 sub-disciplines of management science published in 2014 by a team of young researchers, members of the Committee of Organization and Management Sciences of the Polish Academy of Science (Komitet Nauk Organizacji i Zarządzania PAN) (Cyfert et al., 2014). There was input from the statistical data from postdoctoral dissertations in the field of business organization and management science submitted to the Central Commission for Academic Degrees and Titles in 2007–2015. The typology was presented by Professor Bogdan Nogalski on 20 May 2016, when accepting a honorary degree at the Silesian University of Technology (Nogalski, 2016). From these analyses, the following conclusions have been drawn:

- A measure of the overall potential of Polish management science is the number of postdoctoral habilitation dissertations in this field. As many as 394 were written between 2007 and 2015, almost exclusively by young researchers. In terms of numbers, this represents a significant potential, capable of satisfying the needs of management practitioners.
- The typology of research sub-disciplines encompasses both theory and practice. However, they are quite unevenly represented. Only 23 postdoctoral dissertations represent the theoretical strand (7 pertaining to organization and management theory, 7 to the methodology of business management science, plus 9 critical studies). This demonstrates the practical orientation of the majority of researchers and their willingness to work alongside practitioners.
Among practical studies, strategic, operational and functional levels have been identified, as well as studies on the specific aspects of managing different types of organizations. At the strategic level, strategic management has sparked considerable interest among researchers (64 dissertations) as opposed to entrepreneurship, which has proven far less popular (9 dissertations).

At the operational level, the majority of dissertations pertained to knowledge and information management (44), support for managerial decisions (22), organizational behaviour (20) and innovation management (16). Few authors have explored quality management (7), process management (9) and project management (12). This may be interpreted as a sign of relatively poor preparation for supporting the process and project management.

At the functional level, the greatest share of postdoctoral dissertations explored marketing management (32) and human relations management (31). Logistics management (21), the management of intangible assets (19) and financial management (17) ranked lower. Studies on production and technology management (3) and service management (9) were conspicuous by their absence.

Issues related to the management of economic organizations have been explored in 15 dissertations, while 21 researchers focused on public management and the management of NGOs.

International management, and more specifically management in an international setting, is missing from the typology of sub-disciplines and thematic areas of management science. Given the ongoing internationalization of Polish enterprises, both passive and active, this creates a major gap in studies that are to be translated into management practice.

The previous statistical data seems to be a valid indicator of the potential of Polish management science and the structure of this potential. It can serve as the basis for a forecast of the future impact of research on practice. The prognosis is rather positive, provided that Polish management science has been successfully working its way towards a more prominent place in the international network of research cooperation and has conformed to international standards of quality assessment. In conditions of fierce international competition in the areas of consulting and management support, only high-quality and genuinely useful theoretical studies shall be embraced by practitioners. This also applies to the three levels of higher education (bachelor, master and doctoral) and to postgraduate studies.

Note: The author has cited extracts from the article Polskie laboratorium zarządzania (Polish laboratory management) published in Harvard Business Review Polska in March 2013.

FUNDING
This research was supported by National Science Centre, Poland grant DEC-2014/15/B/HS4/04428.
References

Bloom, N., Genakos, C., Sadun, R. and Van Reenen, J. (2012). Management Practices Across Firms and Countries. National Bureau of Economic Research Working Paper 17850. Cambridge. Mass.

Bloom, N., Sadun, R. and Van Reenen, J. (2012). Does Management Really Work. Harvard Business Review, November: 77–82.

Chajtman, S. (1958). Rozwój organizacji w przemyśle maszynowym ZSRR. Warszawa: PWE.

Cyfert, S., Dyduch, W., Latuszek-Jurczak, D., Niemczyk, J. and Sopińska, A. (2014). Subdyscypliny w naukach o zarządzaniu – logika wyodrębniania i identyfikacja modelu koncepcyjnego oraz zawartość tematyczna. Organizacja i Kierowanie, 1.

Doktór, K. (1964). Przedsiębiorstwo przemysłowe. Studium socjologiczne Zakładów Przemysłu Metallowego H. Cegielski. Warszawa: KiW.

Drucker, P. (1976). Skuteczne zarządzanie. Warszawa: PWN.

Haire, M. (red.) (1965). Nowoczesna teoria organizacji. Warszawa: PWN.

Koontz, H. and O'Donnell, C. (1969). Zasady zarządzania. Analiza funkcji kierowniczych. Warszawa: PWN.

Kotarbiński, T. (1955). Traktat o dobrej robocie. Łódź: Łódzkie Towarzystwo Naukowe.

Kowalewski, S. (1967). Przełożony i podwładny. Warszawa: PWE.

Koźmiński, A.K. (1993). Catching Up? Case Studies of Organizational and Management Change in the Ex-Socialist Block. Albany: State University of New York Press.

Koźmiński, A.K. (1998). Odrabianie zaległości. Zmiany organizacji i zarządzania w byłym bloku socjalistycznym. Warszawa: Wydawnictwo Naukowe PWN.

Koźmiński, A.K. (2008). How It All Happened. Essays in Political Economy of Transition. Warszawa: Difin.

Koźmiński, A.K. (2008a). Management in Transition. Warszawa: Difin.

Koźmiński, A.K. (2008b). Anatomy of Systemic Change: Polish Management in Transition. Communist and Post-communist Studies, 41: 263–280.

Koźmiński, A.K. (2013). Ograniczone przywództwo: Studium empiryczne. Warszawa: Poltext.

Koźmiński, A.K. and Yip, G.S. (2000). Strategies for Central and Eastern Europe. London; St. Martin’s Press; New York: MacMillan Business.

Kurnal, J. (1969). Zarys teorii organizacji i zarządzania. Warszawa: PWE.

Kwiatkowski, S. and Koźmiński, A.K. (1992). Paradoxical country: management education in Poland. The Journal of Management Development, 11(5): 28–33, https://doi.org/10.1108/02621719210014545

March, J. and Simon, H.A. (1964). Teoria organizacji. Warszawa: PWN.

Martyniak, Z. (1993). Prekursorzy nauki organizacji i zarządzania. Warszawa: PWN.

Matejko, A. (1959). Socjologiczne i psychologiczne problemy pracy w USA. Kultura i społeczeństwo, 3(1): 34–42.

Nogalski, B. (2016). Prospektywne i retrospektywne spojrzenie na rozwój współczesnych polskich nauk o zarządzaniu – wniosek na przyszłość. Gliwice: Politechnika Śląska.

Parsons, T. and Shils, E. (1951). Toward a General Theory of Action. Cambridge Mass.: Harvard University Press.

Sarapata, A. and Doktór, K. (1963). Elementy socjologii przemysłu. Warszawa: PWE.

Simon, H.A. (1982). Podejmowanie decyzji kierowniczych. Nowe nufty. Warszawa: PWE.

Simon, H.A. (1976). Działanie administracji. Warszawa: PWN.

Zieleniewski, J. (1969). Organizacja i zarządzanie. Warszawa: PWN.