

MANAGEMENT METHODS, TOOLS AND SYSTEMS IN SME'S



Doc. Ing. Adam Pawliczek, Ph.D.

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Let me introduce myself...

Doc. Ing. Adam PAWLICZEK, Ph.D.



- ❖ Habilitation: T. Bata University in Zlín, FAME
- ❖ Master and Ph.D. Degree: VŠB – TU Ostrava, FMMI
- ❖ Fellowship: Southern Illinois University at Carbondale, CAFS
- ❖ Jobs (18 years): VŠB – TU Ostrava, CPIT; CI4GM, WPM Group; Statutory City of Ostrava, OER; SU Opava, OPF Karviná, KMP; MŠMT (VaVpl)
- ❖ Current Job: MUCO, TU Ostrava, HGF
- ❖ H-index (WoS/SCOPUS): 4
- ❖ Family status: Married, Two children
- ❖ Hobbies: Family, Outdoor Sports, Garden



About MUCO I

BEA campus Olomouc

Business — Education — Acceleration

Since 2013, Moravian University College Olomouc resides in a modern complex of innovative and educational BEA Campus Olomouc, the aim of which is to promote the economic development in the Olomouc Region.

The campus concentrates advisory and expert subjects under one roof. These subjects focus on promoting the competitiveness of small and medium-sized enterprises, development of new business intentions as well as on the preparation of graduates educated in economics and management for the region.



Location of MUCO



for more details see www.beacampus.cz

Moravian University College Olomouc

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Czech Republic

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About MUCO II

Moravian University College Olomouc (MUCO)

Founded in 2005, MUCO is a small, dynamic and single-minded private non-profit university college established by powerful business companies and orientated on economics, management and applied information and communication technologies.

MUCO is the only university in the Olomouc Region with a focus on economics and management.

MUCO emphasizes not only the theoretical knowledge, but also its practical application — internships at top companies are part of the curriculum.

University graduates are successful in the labour market, 97 % of them are continuing in study or are employed.

MUCO does not offer only education opportunities to the Olomouc Region. MUCO and its partners participate in creating a unique space which connects business world with useful applied research. The goal is to help sustainable development of the region through supporting entrepreneurship and business, application of useful research outputs and mutual cooperation.



MUCO offers Erasmus exchange visits for students

Offered Erasmus subjects:

- International Business Economics
- Business Management A, B
- Managerial Accounting in Global World
- Contemporary Strategic Management
- Communication Skills in English 1, 2
- Informatics for Economists
- Business Process Modelling
- International Marketing
- Innovation and Chain Management
- Project Management
- Advanced Visualization of Economic Data

You are welcome

Come and study with us

Enjoy historical city Olomouc and modern, dynamic life at Moravian University College

for more details see www.mvso.cz

EMI Journal

Economics Ekonomika
Management Management
Innovation Inovace

MUCO is the publisher of the scientific technical journal EMI (Economics Management Innovation). EMI is an open-access double blind peer-review scientific journal which focuses on publishing the results of research and theoretical studies, papers and reviews from the field of economics & management and related disciplines. The journal was established in 2009 and it is issued three times a year.

EMI is abstracted and indexed in the following international databases: ERIH PLUS, Google Scholar, DOAJ. EMI is monitored by SCOPUS.



The accepted papers are published both in print and in electronic form.

Full texts are available from the website:
www.emijournal.cz



Description of planned course

3x45 min

- ❖ Sixteen important respected management tools, methods and systems in different branches of management, especially strategic and quality, will be introduced and characterized.
- ❖ The level of utilization of these management methods, tools and systems in SMEs will be characterized.
- ❖ Their influence on business performance of SMEs will be described and illustrated.
- ❖ Own original research data from Czech and Slovak Republic will be presented.

Lesson Content

Total Time	Duration	Activity	Output
15 min	15 min	Introduction	
30 min	15 min	Methods I	
45 min	15 min	Methods II	
60 min	15 min	Methods III	
75 min	15 min	Methods IV	
90 min	15 min	Practical I	
105 min	15 min	Utilization	
120 min	15 min	Performance of SMEs	
135 min	15 min	Evaluation - Test	
150 min	15 min	Spare time	

Initial questions on students:

- ❖ Where are you from? (Country)
- ❖ Do you intend to be an entrepreneur?
- ❖ What branches of management do you know?
- ❖ What management tools do you know?
- ❖ To what extent do management tools utilize SMEs?
- ❖ Do you think that utilisation of management tools improve performance of enterprise?

Student work assignment

„Choose best management tools for your business“.

Work in groups of two-three students.

Importance of the topic in literature (WoS/SCOPUS)

Key words	Number of publications Web of Science	Number of publications SCOPUS
Management methods OR tools OR systems	29 529 001	1 310 360
Management methods	1 948 417	558 157
Management systems	1 432 407	883 146
Management tools	254 788	181 129
Business performance	68 639	87 549
Management by objectives*	46 213	18 512
Management methods AND tools AND systems	45 234	24 775
Business plan	37 169	23 325

Author	Place of Work	H-index
DELERY, JE	UNIV ARKANSAS, AR, USA	11
MAHONEY, JT	UNIV ILLINOIS, IL, USA	22
PORTER, ME	HARVARD UNIV, MA, USA	39
SUJAN, H	PENN STATE UNIV, PA, USA	10
KAPLAN, RS	HARVARD UNIV, MA, USA	26
ZACK, MH	NORTHEASTERN UNIV, MA, USA	9
DIAMANTOPOULOS, A	UNIV VIENNA, AUSTRIA	25
WILLIAMS, ID	UNIV SOUTHAMPTON, ENGLAND	10
TERZIOVSKI, M	UNIV MELBOURNE, AUSTRALIA	10
MELNYK, SA	BOSTON COLL, MA, USA	11
VACHON, S	CLARKSON UNIV, NY USA	7
COOPER, RG	MCMaster UNIV, ON, CANADA	41

Key words (Web of Science)	Number of Publications/Citations/h-index	Time diagram of the number of publications in the years 1996-2015	Time diagram of the number of citations in the years 1996-2015
Strategic document	5 447 27 160 70		
Economic value added*	3 820 27 410 66		
TQM	3 601 28 362 67		
SMART goals	3 156 19 283 57		
Balanced Scorecard	2 735 15 770 51		

Management Tools

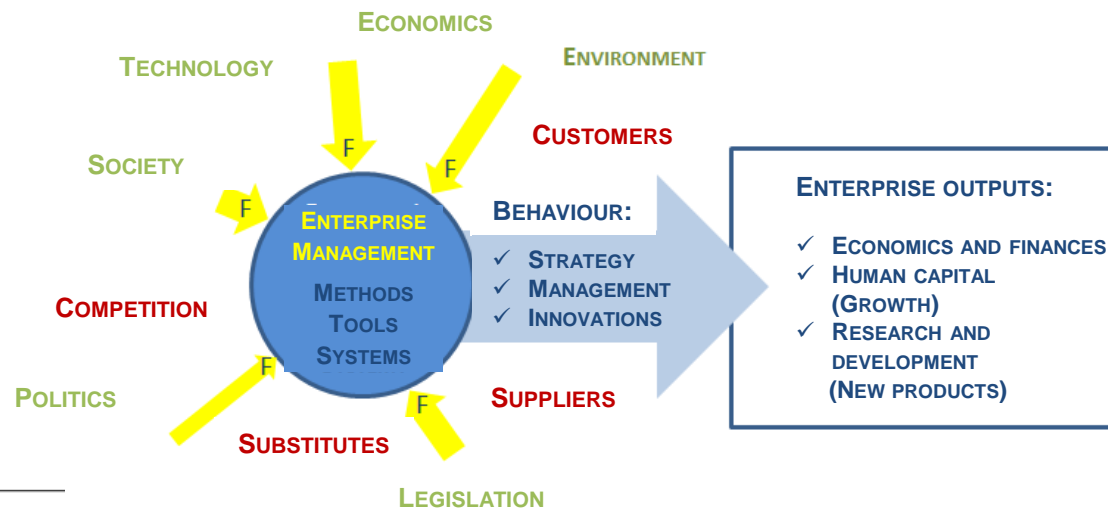
- ✓ Management tools are formalized for the performance of managerial functions in an enterprise with the aim of building a creative environment in order to increase the efficiency of managerial work.
- ✓ They include a wide range of management tools and techniques - from simple planning software to complex social sciences, organizational, technological, economic and social instruments which co-create the current paradigm of management.

Management Systems

- ✓ A system is a whole (1), composed of parts that interact with each other. Between the parts of the system, there can occur flows of information, matter and energy (money).
- ✓ A system (2) is a deliberate process, method of action and implementation of something. The following cases can be seen as a management system: (A) an enterprise, logistics chain, manufacturing, project, or (B) the knowledge structure and software to support the optimal management of these activities (MIS).
- ✓ Management systems in the business can be regarded as open, continuous, stochastic, and dynamic.

Management Function

- ✓ There is no clear border among the concepts of managerial methods, tools, systems, and techniques.
- ✓ Modern trends suggest that the choice of the appropriate management methods and their implementation is the key activity to the dynamism of the enterprise performance according to the required indicators.



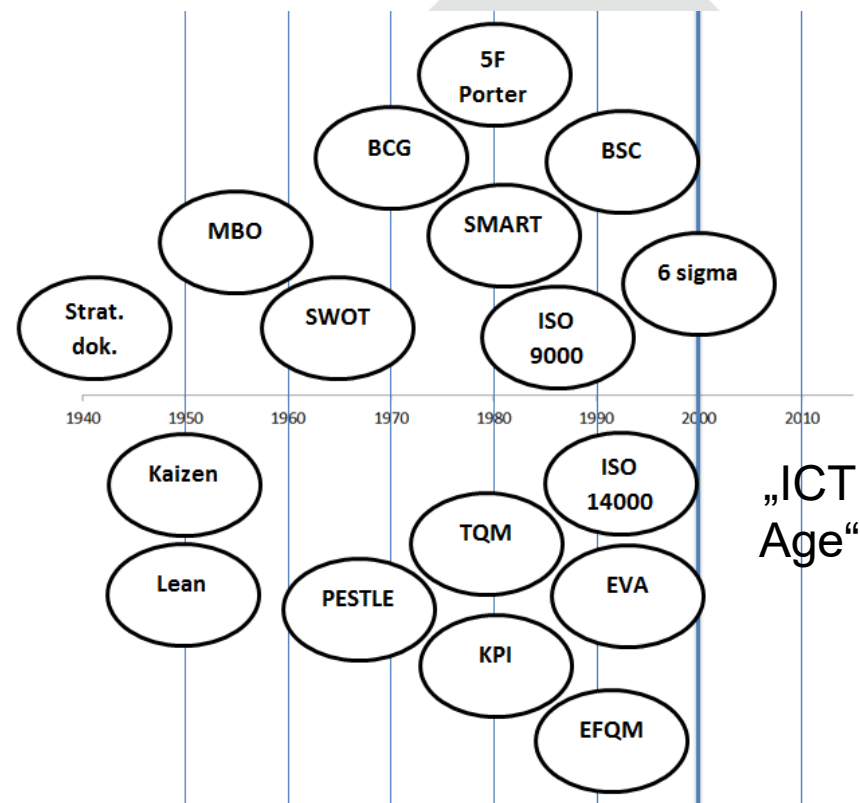
Branches of Management

Area of management	Name of the tool, technique, method, system
Strategic Management	7 Classes of Strategic Risks (Slywotzky), 5F (Five Forces) Analysis, BCG (Boston matrix), BSC (Balanced Scorecard), the Blue Ocean Strategy, Gap Analysis, EFE Matrix, IFE Matrix, Hierarchy of Strategies, Management by Objectives, MOST , PESTLE Analysis, the Strategy → Structure Principle, Forecasting, Scenarios Technique, SPACE Analysis, SWOT Analysis, SMART - Goal Design, VRIO Analysis, Winterling Crisis Matrix, Critical Success Factors, KPI (Key Performance Indicators).
Management of Organization	BSC (Balanced Scorecard), ERP (Enterprise Resource Planning), MBC (Management by Competencies), MBO (Management by Objectives), Organizational Development, Process Management, Project Management, Change Management, SOEM (Service Oriented Enterprise Management), SOM (Service Oriented Management), 5F (Five Forces) Analysis, Boston matrix, Critical Success Factors, Pareto principle, Strategy → Structure Principle, PESTLE Analysis, Reengineering, SMART - goal design, SWOT analysis, VRIO analysis, KGI (Key Goal Indicators), KPI (Key Performance Indicators), Excellence Model EFQM .
Quality Management	APQP (Advanced Product Quality Planning), PDCA (Deming Cycle), DMAIC Improvement Cycle, Excellence Model EFQM , Kaizen , Quality Rings, Lean, Poka-yoke, Six Sigma, TQM (Total Quality Management), the 5S, DOE (Design of Experiments) Ishikawa diagram, Kano model, Pareto Principle, FMEA (Failure Mode and Effect Analysis), FTA (Fault Tree Analysis), QFD (Quality Function Deployment), House of quality, G8D (Eight Disciplines), MSA (Measurement System Analysis), PPAP (Production Part Approval Process), Quality Management Systems ISO 9001 ,
Innovation Management	Blue Ocean Strategy, CAF (Common Assessment Framework), DMAIC Improvement Cycle, PDCA (Deming cycle), Excellence Model EFQM , Kaizen , Quality Rings, Open Innovation, Six Sigma, TQM (Total Quality Management), User Centered Design, Brainstorming, Mindmaps, Pareto principle, SMART - goals design.

Change Management	Three step change (Lewin), Four step change, Eight step change, organizational development, change management by CSF (Critical Success Factors), 5F (Five Forces) Analysis, Kolb Cycle of learning, Delphi method, Pareto principle, SMART - goals design, SWOT analysis, SWOT analysis, Scenarios Technique, PESTLE analysis.
Production Management	ABC-D , BOA (Belastungorientiere Auftragsfreigabe), CIM (Computer Integrated Management), CRP (Capacity Resource Planning), DBR (Drum Buffer Rope), JIT (Just-in-time), MRP (Material Requirements Planning), MRP II (Manufacturing Resource Planning), ERP (Enterprise Resource Planning), KANBAN , FIFO (First In First Out), FEFO (First Expired, First Out), HIFO (Highest In First Out), LIFO (Lowest In First Out), Lean Production, BCG Matrix, Pareto principle, VRIO analysis, ISO 9001 , ISO 14000 .
Marketing and Sales	5K Method, TLM (Total Loyalty Marketing), Branding, Blue Ocean Strategy, Holistic marketing concept, Marketing strategy, Marketing mix 3V , 4C , 4P , Positioning, CRM (Customer Relationship Management), Brand Management, PR (Public Relations), Market segmentation, Targeting, Product concept, Web marketing mix 4S , WOMM (Word of Mouth Marketing), 5F (Five Forces) analysis, An off matrix, BCG (Boston matrix), Kano model, Customer portfolio matrix, PESTLE analysis, SWOT analysis, VRIO analysis.
Process Management	BCM (Business Continuity Management), BPM (Business Process Management), ITIL (ICT processes management), Six Sigma, PDCA (Deming cycle), DMAIC improvement cycle, reengineering, Time frames, statistical methods, ISO 9001 , TQM (Total Quality Management).
Economy and Finance Management	Pareto principle, Financial leverage, PESTLE analysis, SWOT analysis, VRIO analysis, Break Even Point Analysis, Financial statements analysis, Determination of financial indicators (liquidity, rentability, investments, indebtedness, activities, market value, productivity), TCO (Total Cost of

17 important respected management tools in different branches of management.

1. Strategic document,
2. SWOT analysis,
3. QMS ISO 9000,
4. EMS ISO 14000,
5. SMART objectives rules,
6. TQM – Total Quality Management,
7. EVA – Economic Value Added,
8. KPI – Key Performance Indicators,
9. BCG – Boston Matrix,
10. BSC – Balanced Scorecard,
11. Kaizen,
12. Lean Management,
13. MBO – Management by Objectives,
14. Six Sigma,
15. EFQM Excellence model,
16. Porter's five market forces,
17. PESTLE analysis.



Strategic document

- ✓ Planning is one of the most important managerial activities of any enterprise or organization. Planning is the default and key activity of management.
- ✓ Strategic documents can address the following topics:
 - Strategic objectives, vision, mission.
 - Human resources.
 - Finances, Sales and marketing.
 - Investments and acquisitions.
 - Production and quality management.
 - Management of the environment and safety.
 - Logistics and transport.
 - Research, development and innovation.
 - Maintenance and facility management.
 - Risks and opportunities.
 - Capacity and time management.

Levels of formal codification:

- Non written (tacit)
- Written concise
- Written detailed



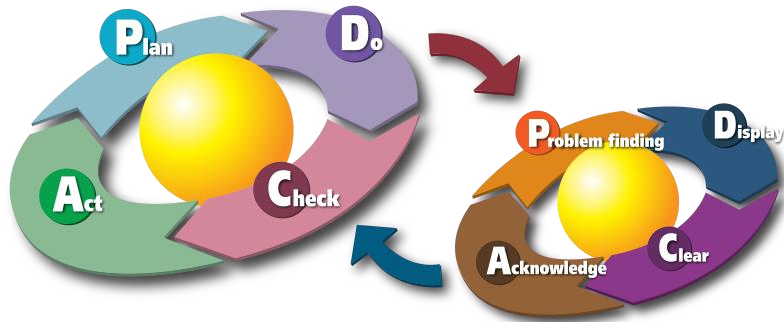
SWOT analysis

- ✓ SWOT analysis is a versatile analytical technique focusing on the evaluation of internal (SW) and external factors (OT) which affect the success of an organization or any other evaluated system.
- ✓ The method was created by Albert Humphrey who led a 1960s and 1970s Stanford University research project.

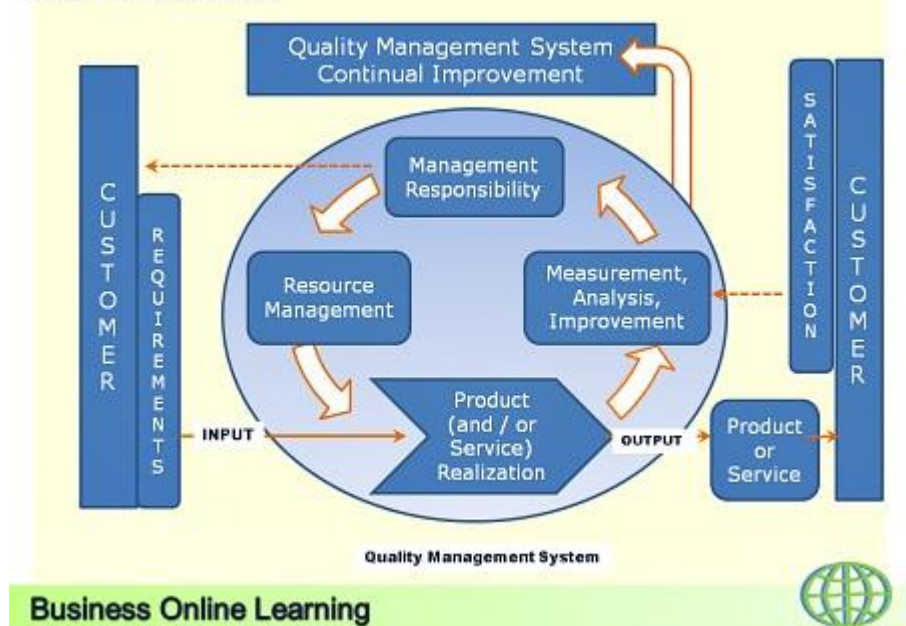


QMS ISO 9000

- ✓ ISO 9001 standards provide guidelines and tools for businesses and organizations that want to ensure that their products and services consistently comply with the requirements of the customers and their quality is permanently improved.

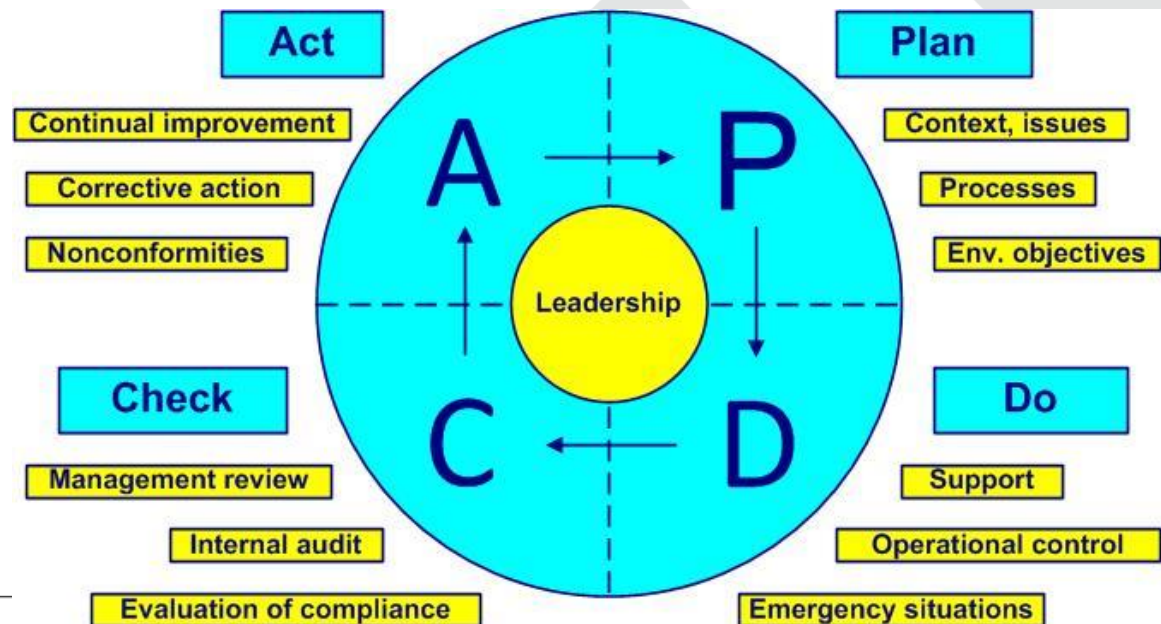


ISO9000:2008



EMS ISO 14000

- ✓ ISO 14000 is a series of international standards that apply to the construction of an important voluntary instrument of environmental policy.
- ✓ An organization implements this system by itself according to the requirements of standards ISO 14000.



SMART rules for objectives



- ✓ The SMART method is a collection of rules that help effectively define the framework or the objective of strategic planning, or generally any project:
- **Specific** – the proposed solution must be accurately described, the exact problem has to be accurately defined and the way it will be resolved has to be precisely specified.
 - **Measurable** – measurability lies in the ability to verify that the proposed solution was successfully implemented. A strategic plan (or project) should at the same time have a mechanism of control of the success rate.
 - **Attainable** – defines the extent to which the objectives can be achieved.
 - **Realistic** – a solution must actually be achievable. Yet the objective should not be too ambitious nor too easy to attain.
 - **Time Specific/Traceable** – the solution must be anchored in a specific time frame in which it is to be achieved.

EVA – Economic Value Added

✓ Economic value added (EVA) is a term that denotes a very popular enterprise performance calculation based on economic profit. The basic idea behind this indicator is that the invested capital must have a greater yield than the cost of this capital, which expresses the so-called "shareholder value". EVA should therefore be positive.

✓ $EVA = NOPAT - WACC \cdot C$

✓ NOPAT... Net operating profit after taxes (EBIT - taxes)

✓ WACC... Weighted average cost of capital

✓ C... Capital total value

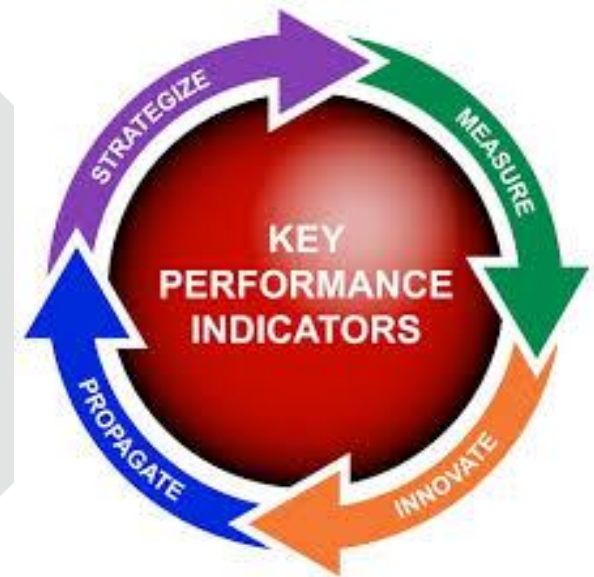
NOPAT	EVA
(NET OPERATING PROFIT AFTER TAXES)	COST OF CAPITAL





KPI – Key Performance Indicators

- ✓ KPI is a term that indicates the performance indicators (metrics) associated with the processes, services, business units or the entire organization. KPI was first introduced by the British Airways around 1980.
- ✓ Typical examples of KPI are e.g.:
 - ✓ Annual turnover of a company (CZK, EUR),
 - ✓ Profit - EBIT, EAT (CZK, EUR),
 - ✓ Profitability - ROE, ROA, ROS (%),
 - ✓ Market share (%),
 - ✓ Number of products sold (pcs.),
 - ✓ Customer satisfaction index (0-1),
 - ✓ Planned and actual utilization of machines (%).

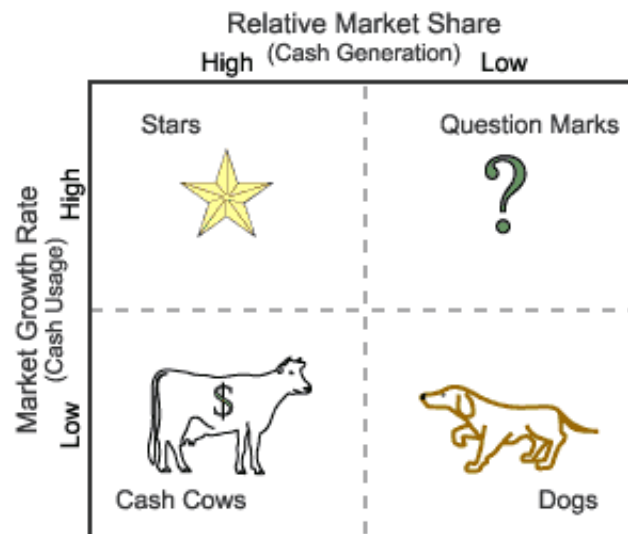


BCG – Boston Matrix

✓ The BCG Matrix is a method invented by the consulting firm Boston Consulting Group (BCG). The matrix was designed by Bruce D. Henderson in 1970. It is used for the evaluation of the product portfolio of an organization in the area of marketing and sales planning.

✓ The BCG matrix identifies four business groups:

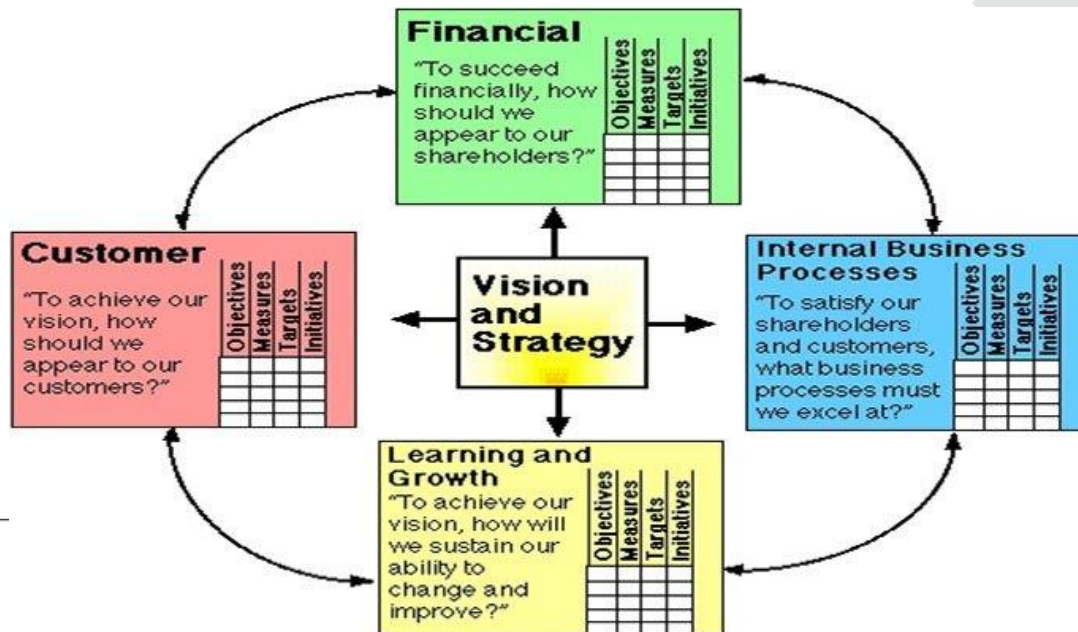
- Cash cows
- Stars
- Question marks
- Dogs



BSC – Balanced Scorecard



- ✓ BSC is a system of enterprise management and performance measurement that is based on the definition of a balanced system of interconnected enterprise performance indicators.
- ✓ The BSC was developed by American consultants: David P. Norton and Robert Kaplan in 1992.



Kaizen

- ✓ Kaizen is the method of gradual improvement that is based on the cultural traditions of Japan. The improvement focuses on gradual optimization of the processes and workflows, quality improvement, elimination of waste, and the saving of material and time.
- ✓ The concept of the 5S is a collection of five Japanese words:
 - ✓ Seiri (sort, discard the unneeded)
 - ✓ Seiton (arrange)
 - ✓ Seiso (cleaning)
 - ✓ Seiketsu (personal cleanliness)
 - ✓ Shitsuke (discipline)





Lean Management

- ✓ Lean Manufacturing (Lean) is a methodology developed by the Toyota company after World War II as the so-called Toyota Production System (TPS). Lean is most often described as a philosophy across the organization and Lean management is a very broad way of management.
- ✓ TPS defines three types of production inefficiency:
 - ✓ Muda – Everything that does not provide benefits, everything that does not increase quality (for the customer). Waste.
 - ✓ Mura – Irregularity, imbalance. Production imbalance. All of this leads to a disbalanced and therefore failing work environment.
 - ✓ Muri – Unreasonable hazing of resources: both human and material. Overload at the expense of performance. Impending burnout – of both machines and people.

MBO – Management by Objectives

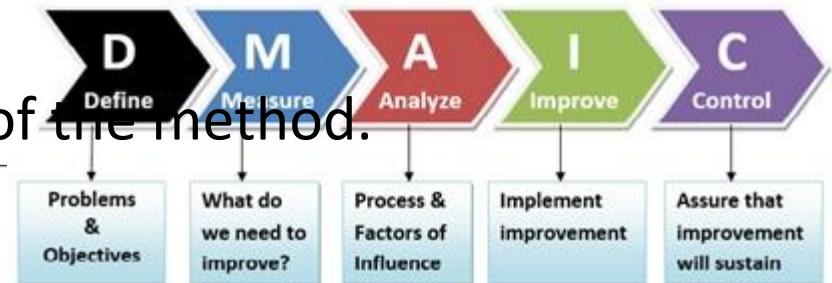
- ✓ MBO, MBR (Management by Results) – management by objectives was proposed in 1954 by Peter F. Drucker in his book *The Practice of Management*. It was seen as the method based on the determination of and mutual agreement on objectives and the evaluation of the success of achieving them.
- ✓ The following activities are the basis of this method:
 - Determination of goals and plans,
 - Participation of individual managers on the approval of the objectives and performance criteria of organizational units,
 - Continuous measurement, assessment and evaluation of the results achieved.





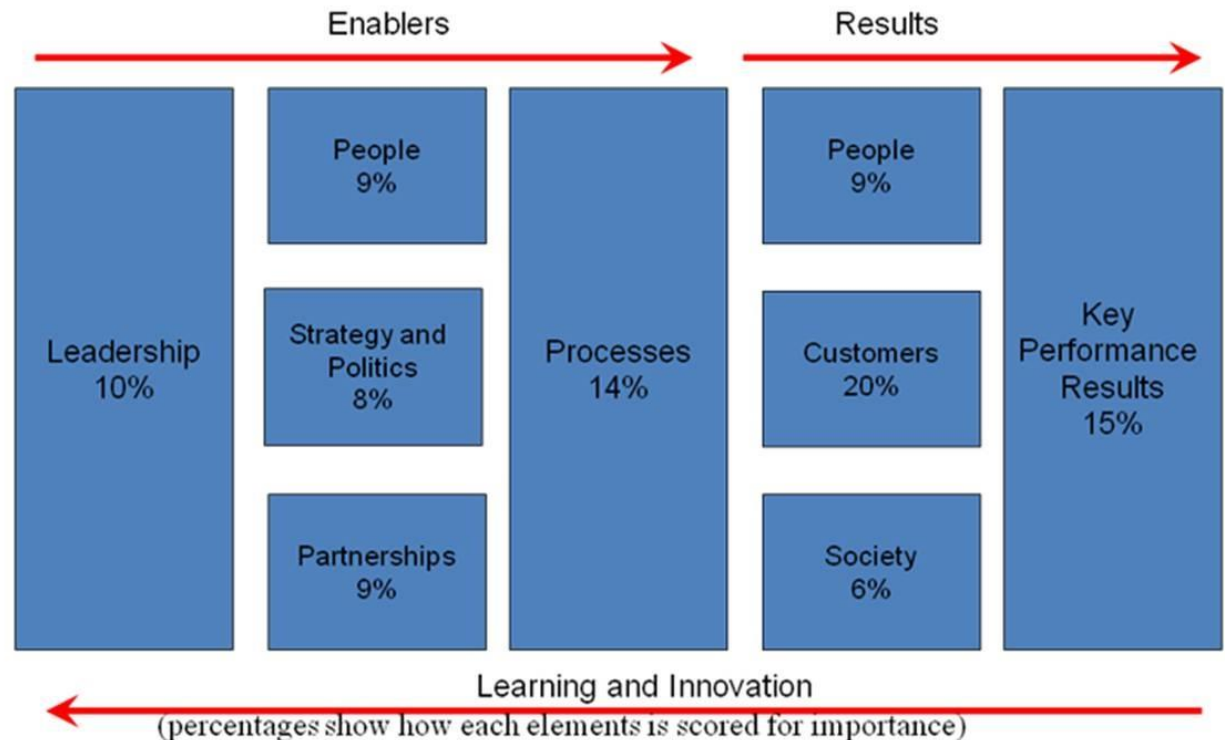
Six Sigma

- ✓ Six Sigma is a comprehensive management tool. It is focused on continuous improvement (innovation) in the organization by the understanding of customer needs.
- ✓ The Sigma is a statistical unit that defines the eligibility of processes to ensure the desired output of the enterprise according to the customer's needs. The higher the Sigma, the better is the enterprise in a competitive environment and the smaller are the deviations. In this way, the occurrence of errors and defects is eliminated.
- ✓ The term 6σ represents a mismatch at the level of 3.4 DPMO (defects per million opportunities) ⇒ the efficiency of 99,9997%, i.e. a mismatch ~ 1:1 0000 0000 of identical product is being the aim of the method.
- ✓ DMAIC Cycle is utilized.



EFQM Excellence model

- ✓ The EFQM Excellence model “European TQM” model was developed in 1991 by the European Foundation for quality management (EFQM) as a framework for the implementation of quality management methods in organizations.

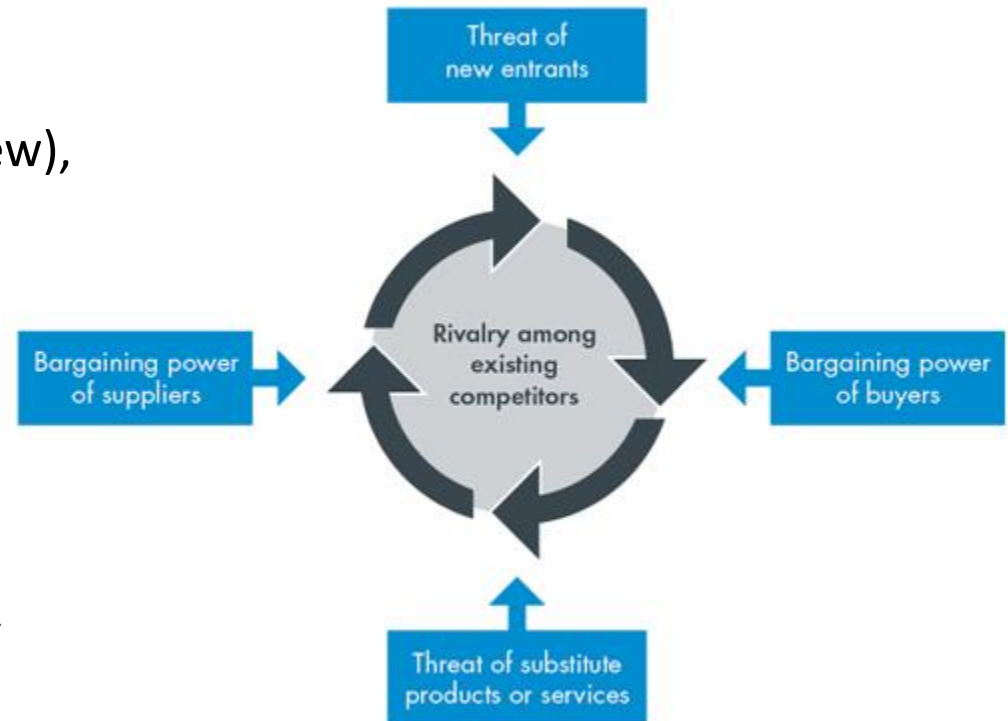


Porter's five market forces

✓ Porter's Diamond or 5 forces by Michael E. Porter from Harvard Business School is the way to analyze the market in the sector of activity of the enterprise in order to create a successful competitive strategy (Porter, 1980). The model works with five elements – market forces.

✓ These forces are:

- Competition (existing and new),
- Substitutes,
- Buyers (customers),
- Suppliers.



PESTLE analysis

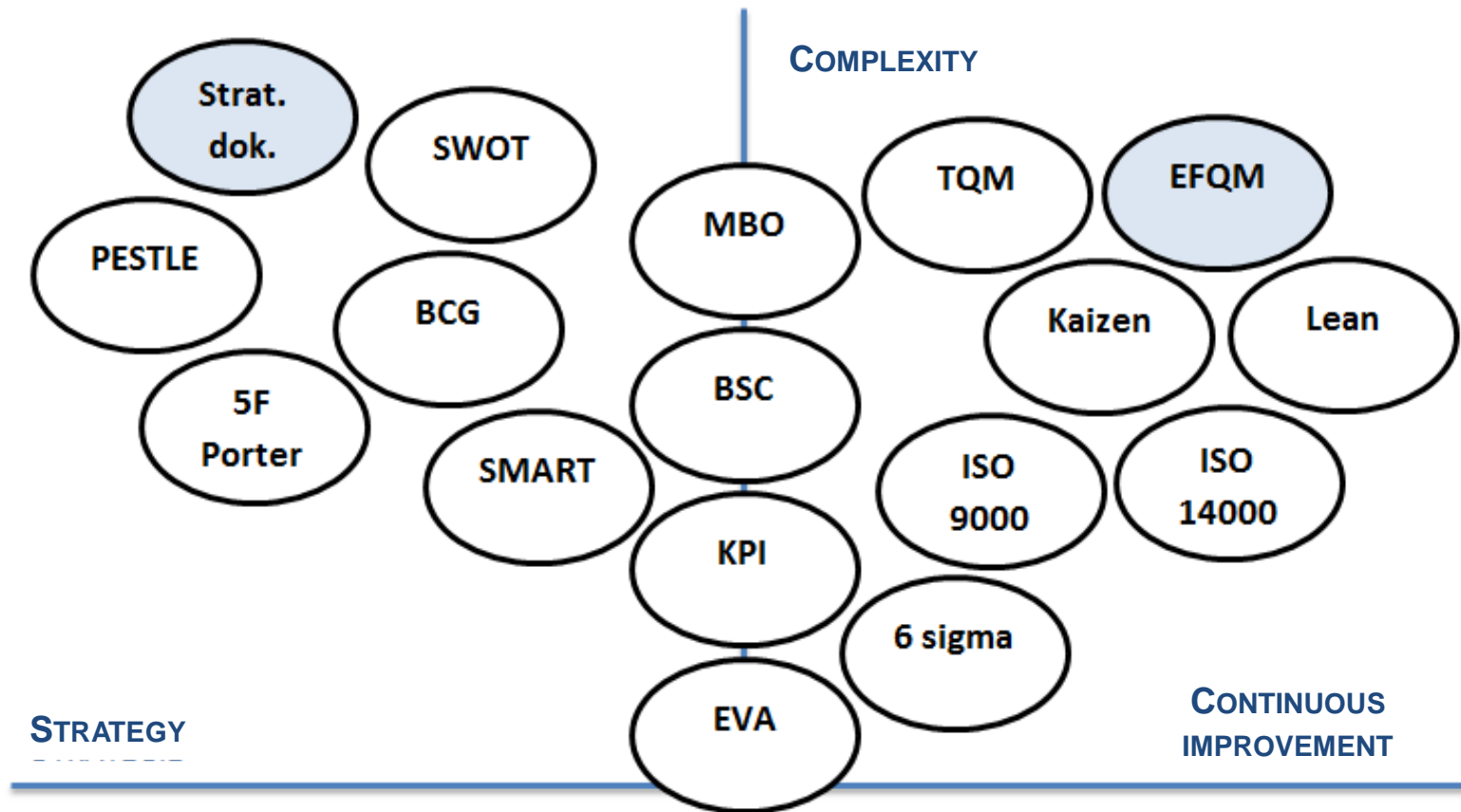


✓ PESTLE (sometimes also PESTEL, or SLEPTE) is an acronym.

✓ The analysis is based on the detailed specification of the facts relevant to the development of the external environment of the organization.

Economic factors	Political a legislative factors
Macroeconomic trends, GDP Interest rate, CZK exchange rate Amount of money in circulation Inflation rate, economic cycles Unemployment, home consumption Average wage, buying power Price and technology development Foreign investment amount	Business and enterprise legislature Political stability Tax policy and legislature EU integration policy Safety and law enforcement Environmental legislature Technical norms and regulations Health and safety Antimonopoly legislature Intellectual property protection
Technical, technological and environmental factors	Socio-cultural factors
New discoveries, technology change Transfer of technologies Spending on R&D&Innovation Grant support of R&D New technologies and their level ICT infrastructure R&D trends New materials, nanotechnologies	Demographic population trends Social policy, Labour Code Citizen mobility, education Income distribution, ethics Lifestyle, free time activity Population education rate Population health, religion Labour approach, entrepreneurship

Synergic Linking of Management Methods, Tools and Systems



„The Heart of Successful Management“

Practical part

Choose best management tools for your business.

1. Create small work groups 2-3 students.
2. Create the ideas for business topic (brainwriting).
3. Select and set the business topic.

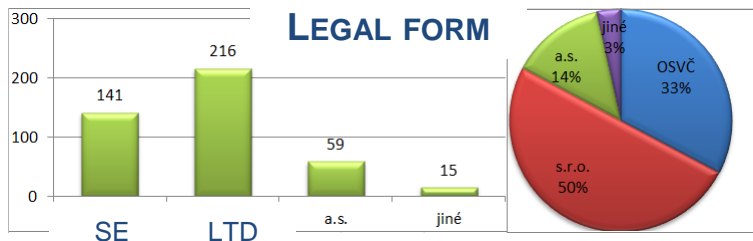
You can work in the same teams and business topics as on Monday lesson.

1. Choose what branches of management you have to address in your business.
2. Select 10 – 20 management tools suitable for your business and explain shortly why (1 sentence).

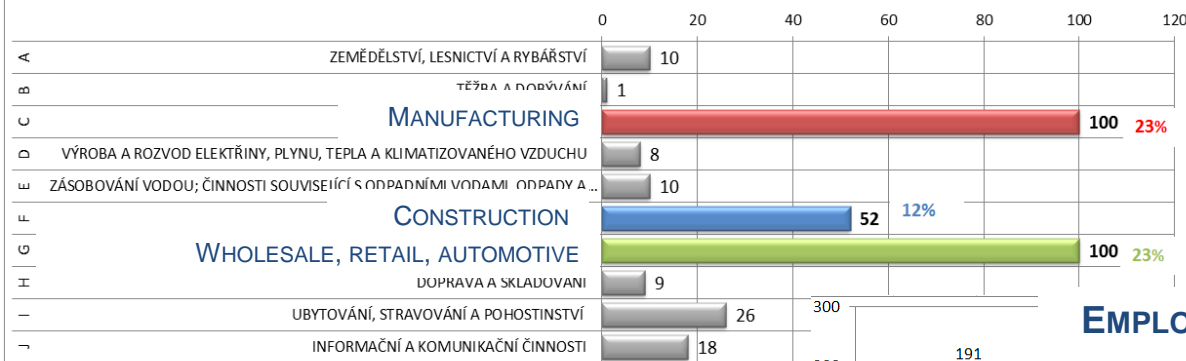
Original research data from Czech Republic.

- ✓ Questionnaire survey of the size of 431 enterprises from the Moravian-Silesian Region,
- ✓ strongly prevail limited liability companies and self-employed in the,
- ✓ manufacturing, wholesale, retail, automotive and construction sectors,
- ✓ mostly micro and small enterprises of 1-50 employees with an annual turnover of up to CZK 100 million (~4 mil. EUR).

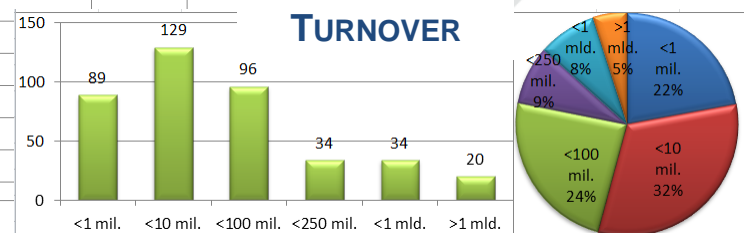
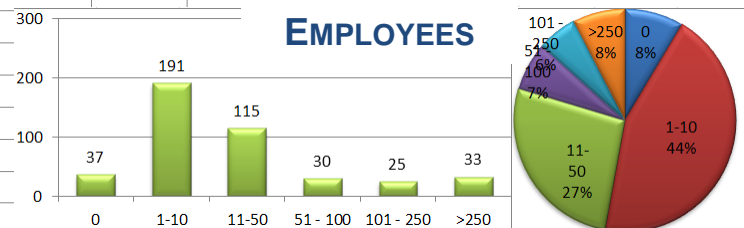
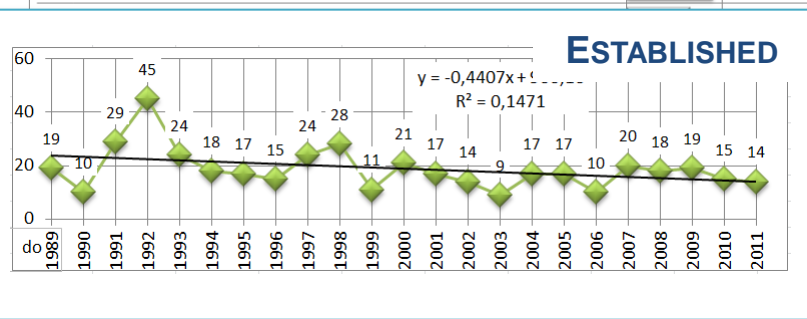
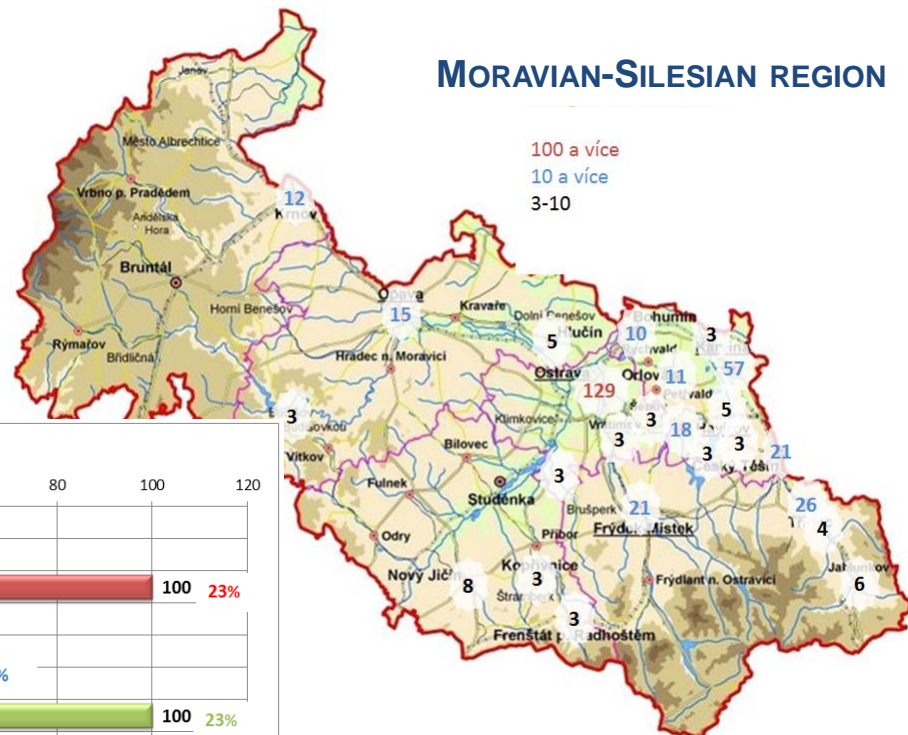
Research data structure



ECONOMICAL ACTIVITY BRANCH



MORAVIAN-SILESIA REGION



ČINNOSTI EXTERITORIÁLNÍCH ORGANIZACÍ A ORGÁNŮ 1

The level of utilization of management methods, tools and systems in SMEs.

1. Bain & Company survey
2. Association of SMEs in Czech Republic
3. Own research results from Czech Republic

Utilization of management systems in the world

✓ Most used management tools by Bain & Company (2014):

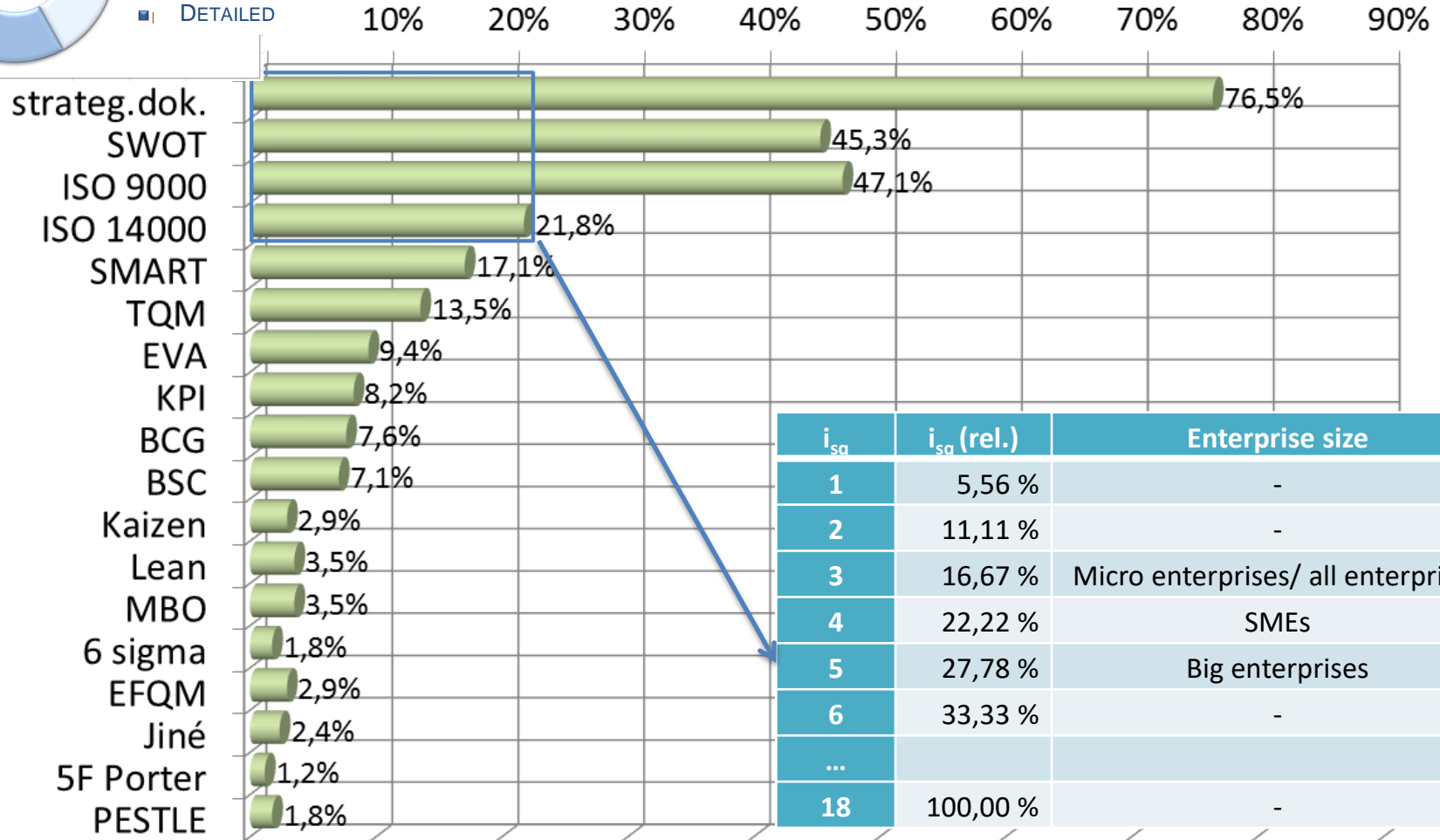
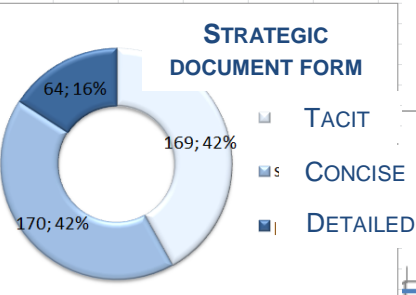
- Customer relationship management (CRM),
- Benchmarking,
- Employee engagement survey,
- **Strategic planning,**
- Outsourcing,
- **Balanced Scorecard,**
- Expression of Vision and Mission,
- Supply Chain Management (SCM),
- Change management,
- Customer segmentation.

Utilization of management systems in CR

✓ Association of SMEs survey (2011):

- **Six Sigma,**
- **Lean,**
- **BSC,**
- **Kaizen,**
- **ISO norms,**
- **Controlling,**
- **Project management,**
- **Coaching,**
- **SWOT,**
- **Planning,**
- **Leadership.**

Utilisation of Management Tools in CR (Moravian-Silesian Region)



i_{sq}	i_{sq} (rel.)	Enterprise size
1	5,56 %	-
2	11,11 %	-
3	16,67 %	Micro enterprises/ all enterprises
4	22,22 %	SMEs
5	27,78 %	Big enterprises
6	33,33 %	-
...		
18	100,00 %	-

Utilisation of Strategic Planning in Czech Conditions

- ✓ A detailed written strategic document is produced by an average of 16 % of businesses.
- ✓ $\frac{3}{4}$ businesses plan for a maximum of 3 years in advance and last time updated no later than 3-4 years ago.
- ✓ A detailed written strategic document is prepared by about 4 % of the self-employed.
- ✓ Mostly utilizes the written strategic document industry sector (NACE C).

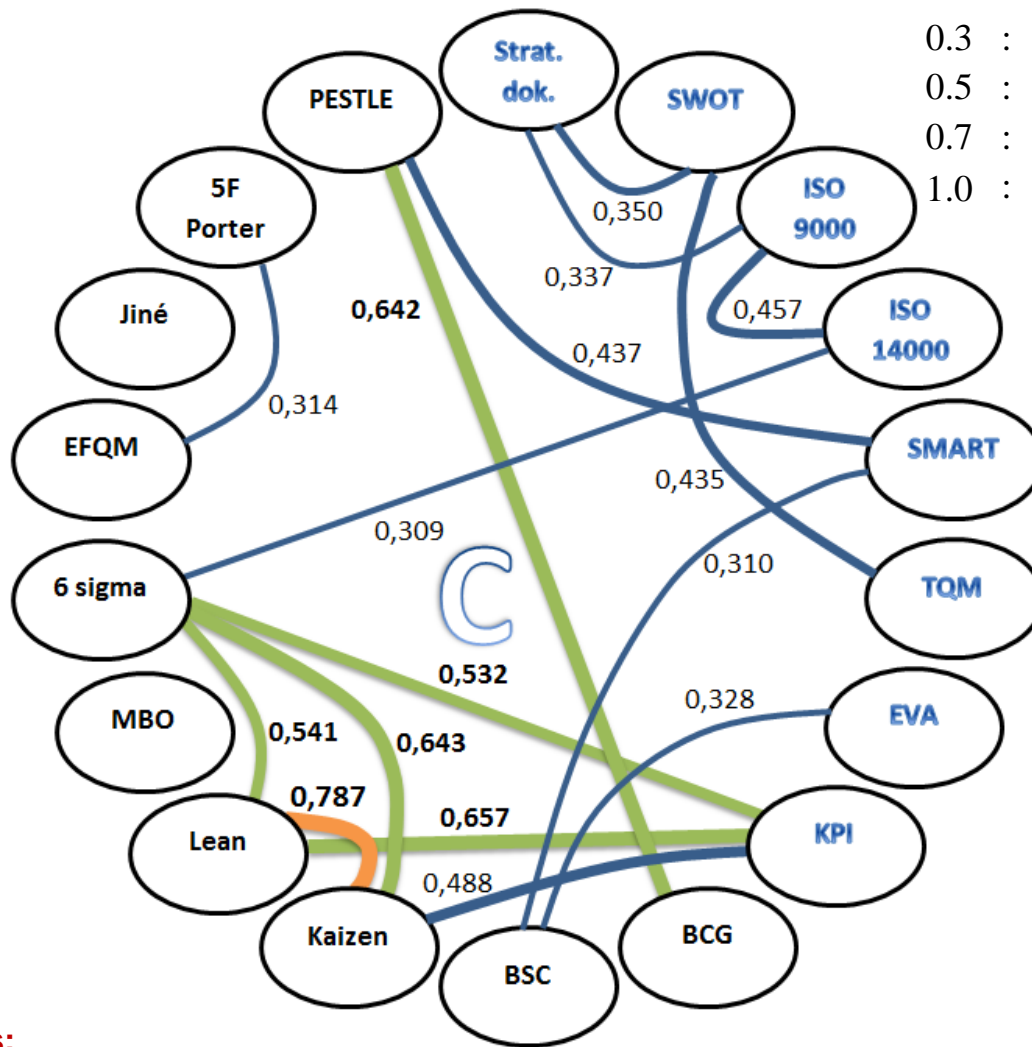
The most strategic document is handled by older, large joint-stock companies in the manufacturing industry.

Utilisation of ISO 9000 in Czech Conditions

- ✓ QMS ISO 9000 series has implemented and employs an average of 36% of the companies surveyed.
- ✓ With the company's age, the number of enterprises with ISO 9000 series is growing.
- ✓ Most utilized is ISO 9000 series by industry (NACE C) and construction (NACE F).
- ✓ with the size of the enterprise (the number of employees and the average annual turnover), the rate of implementation and utilisation of the ISO 9000 series is increasing.

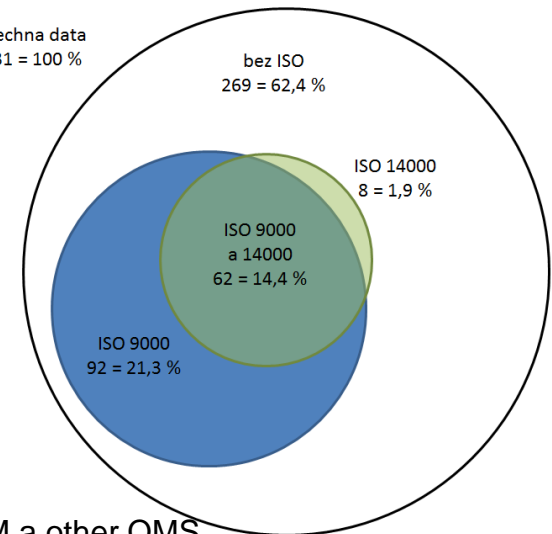
Mostly the QMS ISO 9000 series have been implemented and utilized by older, large joint-stock companies (or middle-sized companies) in the construction industry.

Mutual Correlations of Management Tools



- 0.3 : Weak directly-proportionate linear relation
- 0.5 : Medium directly-proportionate linear relation
- 0.7 : Strong directly-proportionate linear relation
- 1.0 : Perfect directly-proportionate linear relation

všechna data
431 = 100 %



Clusters:

- A. **ISO cluster:** ISO 9000 – ISO 14000: navazuje SWOT, strategic document, TQM a other QMS.
- B. **Quality cluster:** Kaizen – Six sigma – KPI – Lean (EFQM): follows SMART and Porter 5F.
- C. **Strategy cluster:** BCG – PESTLE – SMART: follows BSC and EVA

Influence of management tools on business performance of SMEs.

1. Influence on business performance in literature
2. Improvement in performance thanks to strategic document
3. Improvement in performance thanks to ISO QMS 9000

Influence on business performance in literature

#	Author	Findings, Causality
1	Johnson, 2006	Specific competitive advantages → strategic document (SD).
2	Analoui, 2003	The SD increases the readiness of the enterprises for the market situation.
3	Andersen, 2000	The SD is an important tool for enterprise performance.
4	Song, 2011	The SD leads to better performance of enterprises, but the planning process must be sophisticated.
5	Rudd, 2008	The SD must be updated frequently, to bring positive impact on enterprise performance.
6	Drucker, 2008	The SD is an absolute necessity and a condition for the success of any business
7	Stonehouse, 2002	Focus of the tools of strategic management (SM) – large enterprises. The SD of small businesses is mostly just an operational management plan. The SWOT analysis is the dominant strategic tool.
8	Frost, 2003	The approach to SM differs with the size of the enterprise. Larger enterprises have a written and better prepared SD.
9	Laforet 2008	Larger enterprises → resources and infrastructure, smaller enterprises → individuality and flexibility.
10	Tapinos, 2005	The SD → engine driving the enterprise toward its vision
11	Hartz, 1998	Long-term objectives, management tools and frequent updates of the → SD. It is rather the larger enterprises that have a written SD.
12	Hussey, 1997	A small enterprise usually uses max. 2-3 strategic management techniques
13	Temtime, 2003	Size → resources, investments, knowledge □ strategic planning
1	ASMEs, 2011	77% of Czech entrepreneurs do not actively use or know any modern management method.
2	Štítný, 2009	Emphasis on the use of modern competencies, outsourcing, network organizations and benchmarking.
3	Molnár, 2012	The use of management methods → business and competitive intelligence, competitiveness.
4	Štrítěská, 2012	Businesses prefer simple methods rather than advanced systems of management.
5	Kaynak, 2003	TQM → positive effect on the performance of enterprises.
6	Samson, 1999	Three of the elements of TQM (leadership, people management and customer focus) → significant positive impact on performance.
7	Mizla, 2012	Higher fixed than variable quality costs → highest operating profit.
8	Lundström, 2008	Investment in innovation (Continuous Improvement Systems) → development of SMEs in the Czech Republic.
9	Němeček, 2011	TQM (ISO 9000), CNC, JIT, CRM, EAP → better value added, profit and productivity.
10	Zavadská, 2013	The most certified management system → QMS ISO 9001.
11	Koc, 2007	There is a correlation between management according to ISO 9001, production performance, competing priorities and enterprise performance.
12	Sharma, 2005	ISO 9001 → improvement in financial performance.
13	Burke, 2006	ISO 14001, EFQM → suitable also for SMEs
14	Iraldo, 2009	EMS → positive effect on the productivity of resources, market efficiency and intangible assets.
15	Zorpas, 2010	EMS → improved communication, skills, knowledge, attitude and work morale.
16	Hillary, 2004	EMS → extensive benefits for SMEs.
17	Ilomäki, 2001	EMS → outweighs the certification and formal implementation.
18	MacDonald, 2005	ISO 14001 → solid framework for sustainability.
19	Gupta, 2012	Management is a key factor of the use of EMS in performance increase.
20	Shane, 2012	QMS → standard and requirement of competitiveness of SMEs.

Strategic planning and business performance

- ✓ Composite financial performance coefficients have been calculated, including four parameters: Turnover, Profit, Cost and EVA, and extended performance coefficients, including 6 parameters expanded by investment and engagement.
- ✓ Average values of composite coefficients represent the percentage of the chance to get the company into a better performance category due to the elaboration of the given form of strategic document.
- ✓ **Enterprises that have a detailed written or concise strategic document have better overall performance than companies that do not have a written strategic document.**
- ✓ It is clear that a detailed written strategic document is much more effective than a brief written strategic document.

Number of parameters	Type of composite index	k_p (%)	Average k_p (%)
4	Coefficient of financial performance – detailed written SD	84,3	21,1
6	Extended coefficient of performance – detailed written SD	146,9	24,5
4	Coefficient of financial performance – concise written SD	3,1	0,8
6	Extended coefficient of performance – concise written SD	10,4	1,7

ISO 9000 series and business performance

Three types of composite performance coefficients were calculated:

- ❖ Composite "Financial Performance Coefficient" including 4 parameters: Turnover, Profit, Cost and EVA,
 - ❖ "Advanced Performance Coefficient", including 6 parameters: financial parameters extended to investments and contracts,
 - ❖ „Balanced performance factor", including 10 parameters: financial + extended parameters and employee numbers, employee benefits, and energy and material savings.
- ✓ The average values of the composite coefficients represent the percentage of the chance to get the company into a better performance category due to the fact that the ISO 9000 QMS is being applied.
 - ✓ Enterprises that implemented and use the QMS ISO 9000 series have better overall performance results than companies that did not implement QMS ISO 9000 series.
 - ✓ Enterprises that implemented and use the QMS ISO 9000 series have better complex results of balanced BSC performance compared to enterprises that did not implement QMS ISO 9000 series.

Number of parameters	Type of composite index	k_p (%)	Average k_p (%)
4	Coefficient of financial performance – ISO 9000	26,4	6,6
6	Extended coefficient of performance – ISO 9000	46,3	7,7
10	Balanced coefficient of performance – ISO 9000	61,2	6,1

Final Test

1. What level of business plan codification brings best results?
2. What are the internal factors of SWOT analysis?
3. On what cycle is based QMS ISO 9000 series?
4. What acronym SMART is dedicated to apply?
5. What tool uses cows for analyses of the product portfolio?
6. What perspectives except financial focuses BSC?
7. What method tends to „perfection“ in Japanese?
8. What tool focuses on competitors and substitutes?
9. What method primarily minimalizes number of product mismatch?
10. Is proven by research that QMS ISO 9000 impacts positively performance of business?

Summary and Evaluation

- ✓ Sixteen important respected management tools, methods and systems in different branches of management, especially strategic and quality, have been introduced and characterized.
- ✓ The level of utilization of these management methods, tools and systems in SMEs have been characterized.
- ✓ Their influence on business performance of SMEs was described and illustrated.
- ✓ Own original research data from Czech Republic was presented.
- ✓ Acquired knowledge was checked by final test.

Good Luck

Thank you for your attention

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