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APPLICATION OF KEY PERFORMANCE INDICATORS TO IMPROVE THE EFFICIENCY OF MONITORING OF THE ORGANISATION'S ACTIVITIES: THEORETICAL APPROACH

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Abstract. Key performance indicators (KPI), if properly used at an enterprise, can demonstrate the progress achieved by the enterprise in its pursuit of strategic objectives. The main goal of this research was to develop a model for the application of KPI process with the objective to improve the efficiency of monitoring of the organisation's activities. Literature review, systematic and comparative analysis of literature, academic literature synthesis, content analysis, monitoring and modelling were carried out. KPI are these particular indicators which best reflect the key/fundamental processes of the enterprise activity. In order to draw maximum benefits from the selected KPI, they have to conform to certain characteristics: achievable, owned, timely, relevant and measurable. The authors suggest a model of the process of KPI application which would help to improve the efficiency of monitoring of the organization's activities. When the strategy of an organization has been established and the key objectives have been outlined, four stages of KPI application are enumerated: 1) identification of the function of an indicator; 2) data mining; 3) use of data; 4) indicator relevance validation. The model recommends selecting the optimal number of indicators and checking whether the costs of tracking a single indicator do not exceed the benefits of the monitoring process.

Keywords: KPI – key performance indicator, performance management, efficiency, organization, monitoring.

JEL code: L25.

INTRODUCTION

Traditionally, the activity of enterprises is assessed on the basis of their financial indicators. However, considering the currently available abundant data, globalization and increasing competitiveness, financial indicators fail to reflect the multilateral view of the

enterprise. Financial statements of an enterprise do not suggest what is responsible for their achievement and what may impact their alterations. This lack of information is a restriction when multilateral evaluation of the results of an enterprise is conducted; thus inefficient decisions may be taken. In order to ensure productivity and a high level of activity monitoring, the appropriate indicators are required to facilitate the process of decision making. Also, in many cases, the staff of an enterprise cannot straightforwardly see how the work they perform contributes to the achievement of the objectives of the enterprise thus reducing the value generated by their work.

The above listed issues may be tackled by key performance indicators (KPI) which also serve for supplementing financial statements with useful information. These indicators systemize the sheer volume of data, which provides better grounds for assessing the current processes and making decisions. On top of that, KPI highlight whether the objectives are being pursued in a well-directed and uniform effort.

Ahmad and Dhafr (2002), Peterson (2006), Peterson (2006), Tsai and Cheng (2012), Parmenter (2015), Lindberg *et al*. (2015), Bernard Marr and Co. (2017B), Astrauskaitė and Paškevičius (2018), Gusnadi and Hermawan (2020) investigated the concept of KPI and defined their essential aspects. Eckerson (2009), Parmenter (2015), Burbuio (2017), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018) outlined the key characteristics of KPI and highlighted why these indicators are beneficial to an organization. Alrajehi (2014), Pirlog and Balinti (2016), Barbuio (2017), Ante *et al*. (2018) and Zelga (2018) claimed that the measurement of the efficiency of activity by employing KPI helps the management make strategic decisions which are crucially beneficial to the enterprise. However, in many cases, the KPI which are being observed do not actually bring the benefits which were expected, nor do they facilitate the achievement of the objectives. This failure stems from the selection of unsuitable KPI, or else the costs of tracking KPI exceed the value of the benefits which are received. In order to make the process of KPI application beneficial for the efficiency of the activity monitoring, consistency of the process is required.

Object of research – a system of assessment based on KPI.

Aim of research – to develop a model for the application of KPI process with the objective to improve the efficiency of monitoring of the organisation's activities.

Objectives of research: 1) On the grounds of literature sources, to analyze the key aspects of KPI, their characteristics and benefits for an organization; 2) To identify the main stages of

the KPI's application process to improve the effectiveness of monitoring of the organisation's activities which would facilitate the implementation of the strategy of the organization.

Methods of research. To achieve the set objectives, literature review, systematic and comparative analysis of literature, academic literature synthesis were carried out, using the available open sources and the results of earlier field studies. Content analysis, induction, deduction, summarization along with the monitoring method and modelling.

KEY POINTS AND BENEFITS OF KEY PERFORMANCE INDICATORS

Scholarly literature contains a wide variety of definitions of KPI; therefore, evidently, authors perceive and explain the term differently. Table 1 lists a sample of definitions presented by various authors.

Table 1. Definitions of KPI

Author	Definition
Ahmad and Dhafr (2002)	A *number or value* which can be compared against a target
Peterson (2006)	*Numbers* designed to succinctly convey as much information as possible.
Eckerson (2011)	A measurement of how well the industrial process in the organization performs an operational activity that is critical for *the current and future* success of that organization
Tsai and Cheng (2012)	A *quantitative* index which reveals the *key* success factors of an organization.
Parmenter (2015)	Focusing on those aspects of organizational performance that are the most critical for the *current and future* success of the organization.
Badawy et al. (2016)	A *set of measures* focusing on those sides of organizational performance that are critical for the success of the organization
Bernard Marr and Co. (2017B)	A way to measure how well companies, business units, projects or individuals are performing in relation to their *strategic* goals and objectives.
Astrauskaitė and Paškevičius (2018)	A *measurable value* that demonstrates how effectively a company is achieving key business objectives.
Gusnadi and Hermawan (2020)	A series of important performance indicators that are measurable and can provide information on the extent to which the company's strategic *objectives* have been successfully achieved.

Source: compiled by the authors

Having explored the definitions of KPI presented by various authors and listed in Table 1, we may claim that top attention is attributed to the word 'key', i.e., the essential/ most important criteria. It is the key criteria which bring enterprises to their strategic objectives. Prior to 2006, the indicators of activity evaluation had been defined as a means of information

concentration; however, more recent definitions have been focusing on the present and the future, and thus on the strategic objectives which the indicators help to achieve. The highlighted authors emphasize the characteristic of 'quantitativeness' of KPI, i.e., that the indicators must be measurable as it helps the monitoring and analysis of an indicator. Having generalized on the definitions listed in Table 1, we see that an indicator is a marker which is important to an enterprise (or a department, project or individual) which may be measured and which shows how efficient is the pursuit of some objective.

Helmold and Samara (2019) distribute KPI into two categories: 1) *high level* – ones which are expected to produce the overall evaluation of the enterprise and show its general outlook; 2) *low level* – ones which reflect more detailed processes taking place in departments and/or reflect the performance of specific members of staff. Meanwhile, Graham *et al.* (2015), Parmenter (2015) provide the following categories: 1) lag indicators present historical results; 2) lead KPI predict future performance and enable future trends to be identified. Lag KPI are the traditional indicators of financial analysis: profitability, activity, liquidity, and solvency. PwC (2017A) splits the leading indicators into three main groups: staff, clients, and non-financial activity.

It may be claimed that Helmold and Samara (2019) and Graham *et al.* (2015) suggest similar structures of KPI. High level KPI are the ones which correspond to the lagging indicators as both groups focus on the general assessment of the activity of the enterprise. Meanwhile, the low level indicators and the leading indicators are focused towards the staff and the processes taking place in departments.

Parmenter (2015) does not agree with the distribution of KPI into the leading and lagging ones because, in his opinion, KPI should focus only on the present and on the future. The author claims that most organizations concentrate on the indicators of very old activity (which are a month or even a quarter old); according to the author, such activity indicators cannot be referred to as KPI. Kerzner (2013) also claims that the information provided by KPI is beneficial for taking decisions in the future and that there is no point in tracking the indicators which are impossible to affect.

Intrafocus (2018) suggests that an enterprise researching its lagging KPI may draw conclusions and adapt them for its future on the basis of the activities conducted in the past; however, it does not trigger any impact regarding the pursuit of strategic objectives. The main reason of using the lagging KPI is that the data is easily accessible and calculable. The authors

claim that an enterprise may affect only the leading KPI, and only this type of KPI brings the enterprise closer to its objectives. However, it should be emphasized that even the leading KPI are not a guarantee of success, that is, at the current moment, the enterprise cannot be sure that a specific indicator value will definitely contribute positive added value. Proof will only be presented by the positive change of the lagging indicators which will only be available after a certain time.

Having generalized on the statements of the researched authors, we may conclude that only the leading KPI bring the enterprise closer to the objectives it is pursuing, and, with the help of the lagging indicators, would it be possible to assess the appropriateness, efficiency and the created added value of the leading indicators. Therefore, it is essential that enterprises should strike the right balance between the leading and lagging KPI so that the efficiency of the monitored activity should be appropriately and validly assessed.

Not all the indicators can be called key performance indicators. In order to make an indicator followed by an enterprise useful and efficient so that it would help to pursue the objectives of the enterprise, it has to adhere to specific criteria (characteristics) (Table 2). These guidelines help enterprises create such indicators of activity tracking which would fully correspond to its current activity of operations, specific aspects and needs thus eliminating the likelihood of selecting an indicator merely because of its popularity and/or accessibility of the data to be observed.

Table 2. Characteristics of KPI

Characteristics	**Comments on characteristics**	**Authors highlighting the characteristics**
1. Sparse	The fewer KPIs, the better	Eckerson (2009)
2.Chain / drillable	Connected between different levels of management	Eckerson (2009), Parmenter (2015)
3. Simple	Definitions and theoretical terms should be clear and well-defined.	Eckerson (2009), Parmenter (2015), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018)
4. *Achievable*	Users know how to affect outcomes	Eckerson (2009), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018)
5. *Owned*	An individual or a group is responsible for KPI	Eckerson (2009), Parmenter (2015), Burbuio (2017), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018)
6. Verifiable	The data used to calculate KPIs should be auditable both in terms of its accuracy and appropriateness for purpose.	Eckerson (2009), Burbuio (2017)
7. Actionable	Oriented towards the objectives of the activity	Eckerson (2009), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018)

8. *Timely*	Observed within a defined timescale	Parmenter (2015), Burbuio (2017),
9. *Relevant*	Measures should be identified that clearly support the strategic objectives of the broadcaster.	Parmenter (2015), Burbuio (2017), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018)
10. *Measurable*	Possible to express quantitatively	Burbuio (2017), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018)
11. Balanced	Consisting of financial and non-financial indicators	Eckerson (2009)
12. Aligned	KPIs don't undermine each other	Eckerson (2009)
13. Nonfinancial	Not expressed in a currency	Parmenter (2015)
14. Accessible	Available as data	Burbuio (2017)
15. Cost effective to collect	The effort required to collate and report a KPI needs to be weighed up against the benefits	Burbuio (2017)
16. Validated	They should give no incentives and no opportunities to go for short-term results only	Eckerson (2009), Parmenter (2015)

Source: compiled by the authors

Table 2 highlights that the authors tend to disagree as to whatever should be efficient KPI. Eckerson (2009), Parmenter (2015), Barbuio (2017), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018) are uniform in claiming that the 'owner' of an indicator is ultimately important. Parmenter (2015), Barbuio (2017), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018) agree that an indicator must be relevant. This characteristic is also highlighted by Hyysalo, Kelanti and Markula (2018) as well as Zavalyi (Завалий, 2019) who state that the objectives of an enterprise and the relevant key performance indicators should be reviewed, fine-tuned, and, of required, renewed if their relevance has been lost. There is one more characteristic – timeliness – which is related to relevance, i.e., the timeline must be defined, as suggested by Parmenter (2015), Barbuio (2017). Eckerson (2009), Parmenter (2015), Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018) agree regarding the simplicity of the indicators and believe that it is directly related with their efficiency. This is also corroborated by Alrajehi (2014) and Bernard Marr and Co. (2017A) who suggest that the indicators of activity assessment should be understood virtually at any level of the organization. Alrajehi (2014) adds that data collection and monitoring should not require specific knowledge.

Eckerson (2009) is the only researcher to highlight the characteristics not only of a single criterion but also the characteristics of the entire KPI system, i.e., that the system of characteristics needs to contain few, balanced and harmonious criteria thus highlighting the importance of the relationship among all the researched indicators of the enterprise.

Lo-Iacono-Ferreira, Capuz-Rizo and Torregrosa-Lopez (2018) suggest using the SMART (i.e., Specific, Measurable, Achievable, Relevant, Timely) acronym structure for the composition of the appropriate KPI as the five listed characteristics define the required characteristics. This suggests that KPI should be oriented towards the objectives of an activity, expressed in quantified values, well-grounded, be interrelated and related with the performed work, and be tracked during the indicated time.

Analysis of the characteristics of KPI listed in Table 2 suggests that, since 2017, attention has been paid not only to the benefit provided by KPI, but also the costs of data gathering are considered, which is important because the costs of information gathering or indicator observing may exceed the benefits brought by KPI, which is economically irrational. On the basis of a characteristic which is singled out, it is important to consider the potential inefficiency of the observable indicators.

Having explored the data presented in Table 2, we determine that authors single out relatively different characteristics, but, for most KPI, the key characteristics are the following: achievable, owned, timely, relevant and measurable.

When devising new or reassessing currently available KPI, it is essential to consider the highlighted properties which help to determine the most efficient and beneficial indicators to reflect the progress achieved by the enterprise in terms of the objectives which have been set. Such KPI would also help to eliminate all work which yields no added value to a department or the entire enterprise, i.e., the creation of excessive production (information), long wait until the processing of production (information) and/or additional correction of the performed work.

Alrajehi (2014), Pirlog and Balinti (2016), Barbuio (2017) as well as Ante *et al.* (2018) and Zelga (2018) highlight that the measurement of the efficiency of an activity by using KPI helps the management take strategic decisions beneficial for the management. Such decisions bear significant impact on the overall performance of the enterprise; they are related with future planning and long-term effect. Strategic decisions help to fulfill the potential of the enterprise in terms of the achievement of the objectives. Barbuio (2017) and Zelga (2018) also claim that KPI help to instill the culture of systematic improvement at enterprises.

Popa (2015) singles out four main reasons for developing KPIs: 1) checking if the ways of action adopted are in accordance with the objectives; 2) gathering the information necessary to improve the activity; 3) controlling and monitoring the activities and the people performing

them s); 4) providing support for the reports going to external stakeholders (external reporting indicator.

Smith and Heijden (2017) also remark that KPI represent a useful source of information which serves as an addition to the financial statements. For Lithuanian enterprises, the additional information gathered with the assistance of KPI would be reflected in the notes of financial statements where more detailed information would be delivered regarding possible questions why the objectives were (not achieved) and what had direct impact on the success/ failure; thus the results presented in the three main financial statements (Profit (loss) statements, Balance sheet, Cash flow statement) would be elaborated.

PwC (2017A) also suggests three causes why it is essential to assess non-financial indicators: 1) they are better related with the long-term strategy of the enterprise; 2) they reflect intangible assets (e.g., relationship with the clients); 3) they may provide an early signal about the financial indicators of the future and help tracing one's competitive advantage.

On the grounds of the benefits provided by KPI as elaborated by various scholars, the authors of the present paper suggest using the KPI system because of the six following causes:

1. KPI system provides background for taking strategic decisions;
2. KPI system supplements the results provided in financial statements;
3. KPI system is a tool for tracking and controlling activities and the people implementing these activities;
4. KPI system registers the difference between the factual and planned results;
5. KPI system provides information for the improvement of activity;
6. KPI system checks the adherence between the selected actions and the objective.

The observed indicators facilitate the process of identifying the problem areas. Having identified the current problem, it is essential to determine the key reason why the problem has been encountered and to find solutions so that the encountered problem should not be a recurrent one instead of merely mitigating its impact. Thus, the processes at the enterprise are upgraded, and this contributes to the achievement of the objectives of the enterprise which have been set.

PROCESS OF APPLICATION OF KEY INDICATORS OF THE ORGANIZATION'S ACTIVITIES

When the efficiency of the activity of an organization is being observed, it is essential to do the proper selection of KPI and to apply them consistently, to track the benefits they bring and to introduce timely modifications whenever needed. According to Mourtzis, Papatheodou and Fotia (2018), many enterprises do not observe any positive changes in their activity even though KPI are being tracked, measured and analyzed. The main cause from the point of view of these authors is the selection of inappropriate KPI. In order to escape this issue, it is essential to adhere to the proper course of their adoption as then the suitability of the selected indicators is seen as early as at the stage of their creation; otherwise, immediate corrective action may be taken by either 'fine-tuning' that indicator or rejecting it completely.

The authors of the present paper should adhere to the following stages of the KPI's application process to improve the effectiveness of monitoring of the organisation's activities as indicated in the graphic model presented in Figure 1:

1. Identification of the function of an indicator;
2. Data mining;
3. Use of data;

Indicator relevance validation.

Identification of the function of an indicator. In order to assess KPI, first of all, the strategic objective should be considered which has to be verbalized in order to verify the relevance of KPI in the course of activity and to check whether a specific indicator is actually related with the objective that has been set. Joppen *et al.* (2019) also indicate that objectives constitute an important factor when selecting KPI. Without having a strategic objective, the likelihood of a failure of a KPI system increases as the observed data will most probably fail to reflect the implied strategy of the enterprise, there will be no interconnection, and lots of valuable time will be lost.

The selected KPI should conform to the key general qualitative characteristics (achievable, owned, timely, relevant and measurable) as well as other specific properties which are of importance to the specific enterprise.

It is also of importance to select the right number of KPI. When exploring scholarly literature, it was observed that the optimal number of KPI to be used at an enterprise largely varies in the recommendations of different authors (Table 3).

Table 3. Recommended number of KPI

Author	**Number**
Kaplan and Norton (1996, quoted from Graham *et al*., 2015)	<20
Slater *et al*. (1997)	Min. 7; max. 12
Hope and Fraser (2003, quoted from Graham *et al*., 2015)	<10
PwC (2007)	4–10
Kerzner (2013)	6–10
Parmenter (2015)	<10

Source: compiled by the authors

From Table 3, we may observe the trend of a decreasing number of KPI. Back in 1996, it was advisable to establish up to 20 KPI; however, more recent sources suggest having up to 10 KPI. Warren (2011) and Mourtzis, Papatheodou and Fotia (2018) share the opinion of sticking to a low number of KPI as they claim that an excessive number of KPI would result in lack of clarity. According to Lautour (2018), the number of KPI, the number of KPI should be minimized. Harvey and Sotardi (2018) claim that an excessive number of KPI may result in scattered data, whereas an insufficient number will produce 'black spots', which is simply unacceptable. Borsos *et al*. (2016) highlights that the number of KPI at an enterprise depends on its size, the complexity of the processes taking place there, and on some specific aspects of the objectives.

When dealing with this issue, we may consider the Pareto principle, according to which, 20% factors create 80% of the result; therefore, it is sufficient to focus on the factors producing the highest value which will lead to the objective most efficiently. It is essential to highlight that an insufficient number of KPI may fail to reflect the entire complex view of the enterprise.

Hence, in order to make the employed KPI beneficial, it is necessary to establish the optimal number of KPI to be observed, to select the right indicators, to set the appropriate objectives, and to use the data which can be easily gathered.

Data mining. The objective of the stage of data collection is to identify how the data will be collected, what/which scale will be used for measurements, whichever is the criterion for unsatisfactory/neutral/satisfactory levels, and which sources of information shall be used.

The method of data mining should be reliable in order to minimize the likelihood of gathering data of low precision. Shah (2019) highlights for different ways to collect qualitative data for improvement: free-text question in a survey, interviews, observations, and review of

documentation. The definition of the evaluation/scale/range of the data will also help to express the data in a quantifiable way. This may be a formula, a numerical value, or a mark on a scale depending on the optimal type for the selected indicator.

Engle (2018) observes that many enterprises opt for analysis of easily collectible data. This is not necessarily a bad choice because these indicators may help in the process of decision taking, but risks are involved that more valuable information may evade the scope of attention. The author highlights that the identification of the indicators bearing a high added value may be a complicated and expensive process; however, it is likely that such indicators shall be far more valuable. Meanwhile, according to Barbuio (2017), if data mining requires extensive resources, the benefits provided by this information should be considered responsibly as this may be irrational from the economic point of view.

It is of importance to highlight that not every single activity should be observed with the help of KPI as valuable information about the progress which has been made is not provided by every indicator. Meanwhile, Badawy *et al.* (2016) observe that most enterprises are using too much KPIs, this can weaken the focus on aims; a large list of KPIs that does not have clear connections to business objectives may be a sign of a bigger problem; a shortage of strategic focus on selecting KPIs is a difficult process; lack of understanding of the KPIs lead to a failure in monitoring and reporting of measures.

Use of data. If the frequency and the timeframe of data selection has been established, it helps to standardize data collection thus also eliminating additional and unplanned work; also, it aligns different KPI so that they simultaneously present the entire picture. Bishop (2018) emphasizes that daily data collection helps the management improve the results of their teams, but foregrounds that this way of measurement may lead to the achievement of short-term goals. In the opinion of this author, it is essential to establish such a frequency of data collection which would give sense to the observed indicator.

The frequency of presentation of statements should be related with the frequency of data collection in order to make the information presented in a statement *still* relevant. Appleton (2017) notes that annual presentation of KPI statements is a reflection of historical rather than current data. Meanwhile, Staron, Niesel and Bauman (2018) observe that there are few researches investigating the frequency at which statements should be presented and at which they are actually presented in practice. It is of importance that the frequency of statement presentation need not necessarily coincide with the frequency of information gathering;

therefore, the enterprise must individually select the frequency of statement presentation which is optimal for the enterprise.

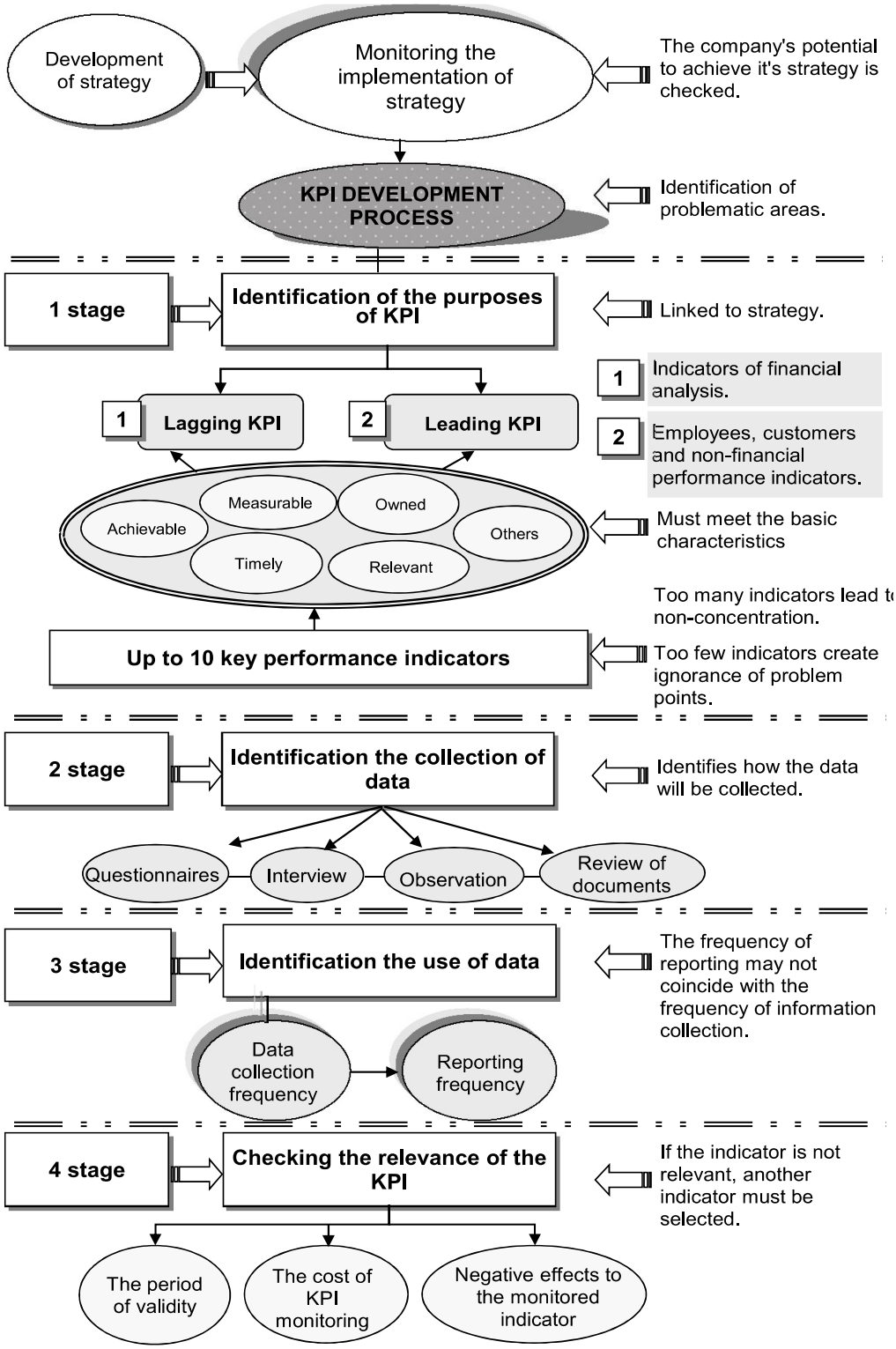

Figure 1. The model for the application of KPI process to improve the efficiency of monitoring of the organisation's activities

Indicator relevance validation. The validation of the relevance of an indicator involves the temporal validity of the indicator, the likely costs of tracking the indicator, the factual relevance, and the relation of potential negative impacts with the tracked indicator. The validity/review date of an indicator is necessary so that it would be possible to check its validity systematically as an irrelevant indicator does not yield any added value while demanding precious work time which might be assigned to a more relevant activity. The importance of regular review of indicators is also highlighted by Appleton (2017). We should emphasize that the validity term is most relevant for such temporary activities of an enterprise or its department as, e.g., projects.

The identification of the costs of observing an indicator is essential in order to be able to verify whether the costs associated with the indicator under monitoring do not exceed the provided benefits. The identification of the potential negative impact helps to direct attention towards potential threats related with the selected KPI and to consider in advance the means and/or actions to be taken in order to avoid potential threats. Parmenter (2015), Bernard Marr and Co. (2018) and Kaiser and Young (2018) highlight that KPI should not be related with salary bonuses or any other incentives.

CONCLUSIONS AND RECOMMENDATIONS

Having analyzed the arguments presented in literature which serve as foundation of the benefits of KPI to an enterprise, we may claim that these indicators, if properly used at an enterprise, can demonstrate the progress achieved by the enterprise in its pursuit of strategic objectives.

Having explored the concept of KPI and its focal points, we state that KPI are these particular indicators which best reflect the key/fundamental processes of the enterprise activity. The indicators are divided into lagging (financial) and leading (non-financial); the lagging indicators may reflect the success of the leading indicators. KPI are not standardized indicators; therefore, each organization should select on its own such KPI which would be most appropriate for the field in which the enterprise is specializing. In order to draw maximum benefits from the selected KPI, they have to conform to certain characteristics: achievable, owned, timely, relevant and measurable.

The authors of the present paper thus suggest a model for the application of KPI process which would help to improve the efficiency of monitoring of the organization's activities. When

the strategy of an organization has been established and the key objectives have been outlined, four stages of KPI application are enumerated: 1) identification of the function of an indicator; 2) data mining; 3) use of data; 4) indicator relevance validation. These stages must be implemented consecutively. The first part assesses the constitution of a single indicator by conducting the general validation of the function of an indicator and the three consecutive stages: data mining, their use, and the verification of the relevance of the indicator. Having completed all the stages of the first part, transition top the second part is made, and the overall KPI system is assessed. The model recommends selecting the optimal number of indicators and checking whether the costs of tracking a single indicator do not exceed the benefits of the monitoring process.

The indicators which have been involved in the monitoring model of the activity of the organization for a long time and which have been systematically proving their benefits for the increase of operational efficiency are actually these indicators which conform to all the characteristics listed by the explored researchers. This ensures the optimal number of KPI and the significant support of the top management of the enterprise.

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