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## SMART ENTERPRISE MANAGEMENT: MODELS AND TOOLS

### SMART МЕНЕДЖМЕНТ ПІДПРИЄМСТВА: МОДЕЛІ ТА ІНСТРУМЕНТИ

The article discusses the features of developing the concept of SMART management for an enterprise, including its characteristic models and tools (which form the instrumental environment used for managing the enterprise). In particular, the authors provided a general description of the features of forming the concept of SMART management of an enterprise. In addition, the research includes a general description and systematic characterization of SMART management models for enterprises. The content of the research allowed for the formation of a systemic characterization of the instrumental environment of SMART management that is used for enterprise management and visualization of its tools. The general conclusions of the research indicate that SMART management is a concept that can improve management efficiency, but it requires greater responsibility from employees and motivates them to achieve higher results. Therefore, further prospects in this direction are associated with the development of new tools and methods for management based on SMART principles.

**Key words:** management models, SMART-approach, achieve the objectives, effective management.

У статті розглянуті особливості формування концепції SMART-менеджменту підприємства, зокрема властивих їй моделей та інструментів (що формують інструментальне середовище, яке використовується для управління підприємством). Зокрема, авторами наведено загальний опис особливостей формування концепції SMART-менеджменту підприємства. Крім того, елементом дослідження є загальний опис та системна характеристика моделей SMART менеджменту підприємства. Доведено, що класична SMART-модель не є єдиною в SMART-менеджменті. Узагальнення вітчизняного та закордонного досвіду такого менеджменту дозволило виділити наступні його моделі: SMART, SMART-OKR, SMARTER, SMART-FIT, SMART-ER. Основна різниця між наведеними моделями полягає у підході до складових акроніму для формулювання цілей та управління за цілями. За результатами дослідження доведено, що концепція SMART-менеджменту підприємства базується на використанні інструментів та методів, що спрямовані на синхронізацію індивідуальних цілей працівників з цілями організації. При цьому зміст дослідження дозволив сформулювати системну характеристику інструментального середовища SMART-менеджменту, яке використовується для управління підприємством та візуалізація його інструментів. Склад інструментального середовища SMART-менеджменту, яке використовується для управління підприємством, є ідентичним незалежно від використовуваної моделі. Саме тому всі окреслені моделі узагальнюються під терміном SMART, інструментальне середовище якого включає: маркери цілеформування; маркери задач; маркери ключових результатів; маркери моніторингу та оцінювання маркери звітування; маркери планування; маркери ресурсів. Звернено увагу на той факт, що будь-яка з

моделей SMART-менеджменту дозволяє реалізувати управління цілями, за конкретними критеріями, які мають забезпечити їх конкретність, вимірюваність, досяжність, релевантність та часову обмеженість. Загальні висновки з дослідження показують, що SMART-менеджмент є концепцією, що дозволяє підвищити ефективність управління, але вимагає від працівників більшої відповідальності та стимулює їх до досягнення кращих результатів. Відтак, дальші перспективи в цьому напрямку пов'язані з розвитком нових інструментів та методів для управління за SMART принципами.

**Ключові слова:** моделі управління, SMART-підхід, досягнення поставлених цілей, ефективне управління.

**Target setting.** SMART management is currently a widely used management concept in domestic and foreign enterprises of various industries and sizes. It happens for several reasons. Firstly, the instrumental environment of SMART management provides a better orientation towards results as it helps the economic entity focus on specific performance goals that correspond to the development strategy. Secondly, acronyms and models based on them in SMART management facilitate understanding of the key steps required for success in business activities (as the approach to goal-setting proposed allows identifying the components of success for the economic entity, which form the movement towards achieving the set goals and tasks) and prerequisite for increasing the efficiency of the enterprise (as it enables the enterprise to avoid wasting time, effort, and resources on goals that cannot be achieved). Thirdly, SMART management provides a better understanding of risks and development opportunities, thus allowing for more balanced decision-making. An accompanying feature of SMART management is its focus on improving internal communications within each department of the enterprise, which improves the overall level of coordination and cooperation of the entire management apparatus of the enterprise. Therefore, SMART management implementation helps enterprises become more successful, efficient, and competitive in their industry.

**Analysis of research and publications.** The authors refer to several studies and publications that examine the application of SMART management in enterprises. Specifically, they have focused on the works of Bashynska I.O. [1], who explores the peculiarities of using the SMART acronym for goal setting and goal-oriented management, and Voronzhak P.V. [2], who highlights the role of a smart approach in enhancing the organizational and economic management toolkit and identifies the main characteristics of the classic SMART management model. In addition to the mentioned merits, the research of McCann P., Ortega Argiles R. [3], Chaikina A.O., Ustenko O.S. [5] deserve attention, as they study foreign experience in implementing the SMART approach in enterprises. Despite the existing

variety of research and publications, it should be noted that the classical SMART model is not the only one in management (in practice, business entities also use SMART-OKR, SMARTER, SMART-FIT, SMART-ER [4]). Additionally, there is a lack of systematic development regarding the content and specificity of the instrumental environment used for enterprise management within the framework of SMART enterprise management. In light of the aforementioned points, this study is relevant and timely.

**The wording of the purposes of article (problem).** According to the outlined issue, the purpose of the article is to investigate the peculiarities of forming the concept of SMART management of an enterprise, in particular, its characteristic models and tools (which form the instrumental environment used for enterprise management).

**The paper main body with full reasoning of academic results.** Within the scope of a particular study, the authors have focused on the concept of enterprise management based on the use of tools and methods that are used in unison as a basis for synchronizing individual employee goals with the goals of the economic entity. The SMART concept in management is not a new one, as it was actually proposed by George T. Doran in his article "There's a S.M.A.R.T. Way to Write Management's Goals and Objectives" as far back as 1981. In particular, this scientist initially proposed to use the acronym SMART to formulate specific and achievable goals (based on the cliché that involved matching goals to characteristics: S-specific; M-measurable; A-achievable; R-relevant; T-time bound). After George T. Doran's article was published, this proposal evolved into the concept of SMART management, which states that each goal is equivalent to a result. Specific models and tools have emerged to help formulate and achieve SMART goals and tasks.

As a result, the concept of SMART management became popular in foreign management practices by the end of the 1980s, and by the 1990s it was already being used in enterprises of various countries and industries. For example, Coca-Cola has been actively using SMART management since 1980 to achieve its goals, in which specificity

should touch everything: the executor, resources, etc. The company can set such a goal: "Increase market share by 5% by the end of next year". Since the 1990s, American transnational company Procter & Gamble has been using SMART management (which stands for Specific, Measurable, Achievable, Relevant, and Time-bound) to define their goals such as "Increasing the sales volume of product Z by 15% by the end of the quarter" or "Reduce the production costs of product A by 10% by the end of the year". The largest Japanese automotive corporation Toyota also uses SMART as a guideline to achieve their goals, for example, "Increase the number of cars sold by 5% by the end of next year". From the 2000s, besides the classical SMART management models, other models have emerged in enterprises. During this period, Ukrainian enterprises also began to use SMART management, although it was not as popular as in Western practices. However, during the COVID-19 crisis, this concept became popular as domestic managers became more attentive to effective enterprise resource management.

Regarding Ukrainian enterprises, they use the concept of SMART management in different ways, covering various levels of management. For example, domestic companies like "Kyivstar" and "Interpipe" use the SMART acronym at all levels, from strategic to operational. Specifically, "Kyivstar" uses SMART goals to formulate its strategic directions, such as increasing the number of customers and improving customer satisfaction [4]. It also uses SMART tasks to achieve its operational goals, such as reducing response time to customer requests. This helps focus on important development areas and achieve success in their industry. The company "Metinvest" only uses SMART goals to formulate its strategic objectives (such as increasing production volume and profit), although it is currently considering adopting the SMART acronym for operational tasks (including achieving operational goals such as improving production efficiency and reducing costs).

The classic SMART model is not the only one in SMART management. Generalizing domestic

and foreign experience of such management has allowed identifying the following models: SMART, SMART-OKR, SMARTER, SMART-FIT, and SMART-ER (Table 1).

The main difference between the models is based on the approach to the components of the acronym for goal formulation and management.

The classical SMART management model is based on the goal-setting theory, according to which, if a goal is specific, achievable, relevant, and time-bound, the probability of its achievement increases (as this goal is clear, motivating, and can be evaluated). The classic SMART model is used in the management of large international companies. For example, at Ford Motor Company, the classic SMART model is used to formulate the company's strategic goals. For instance, one of Ford Motor Company's strategic goals is to achieve greater efficiency in the production of electric vehicles. To achieve this goal, Ford sets specific productivity metrics, time and resource constraints, and conducts systematic evaluation of progress against these metrics. Nestle S.A. also uses the classic SMART model to formulate and achieve strategic objectives (the company may set specific goals to increase the sales volume of a particular product, reduce production costs, or improve product quality). In both companies, the classic SMART model is integrated with systems for planning, managing, and monitoring company activities. In the domestic management party, information about the use of classic SMART models is absent. The components and features of applying such a model are based on the components of the classic SMART acronym.

The SMART-OKR model was developed in the early 2000s by Intel and has become very popular in management in recent years. The main idea of OKR is to formulate specific goals and metrics for achieving them. The well-known global company Google also uses the SMART-OKR model in its operations. This company has also researched and refined the OKR methodology for many years. Currently, Google uses OKR to set goals at all levels – from the highest level down to the team and employee level. The SMART-OKR model

Table 1

#### Generalization of domestic and foreign experience in SMART management

Models	Application base
SMART	Ford Motor Company, Nestle S.A.
SMART-OKR	Google, Twitter та LinkedIn
SMARTER	Coca-Cola, Apple, Procter & Gamble, IBM, General "Electric" and domestic "Nova Poshta" (a subsidiary of iPost Progress LLC).
SMART-FIT	LLC "Fitness Trading"
SMART-ER	Gifty

Source: Formed based on [1]

is actively used by Twitter and LinkedIn. Twitter introduced OKR in 2013 and has since used it to manage its strategic goals and constantly changing business needs. LinkedIn also uses OKR to define its strategic goals and to ensure that all levels of the organization are working towards achieving those goals. The SMART-OKR model is used by domestic companies Interpipe and Kyivstar [4].

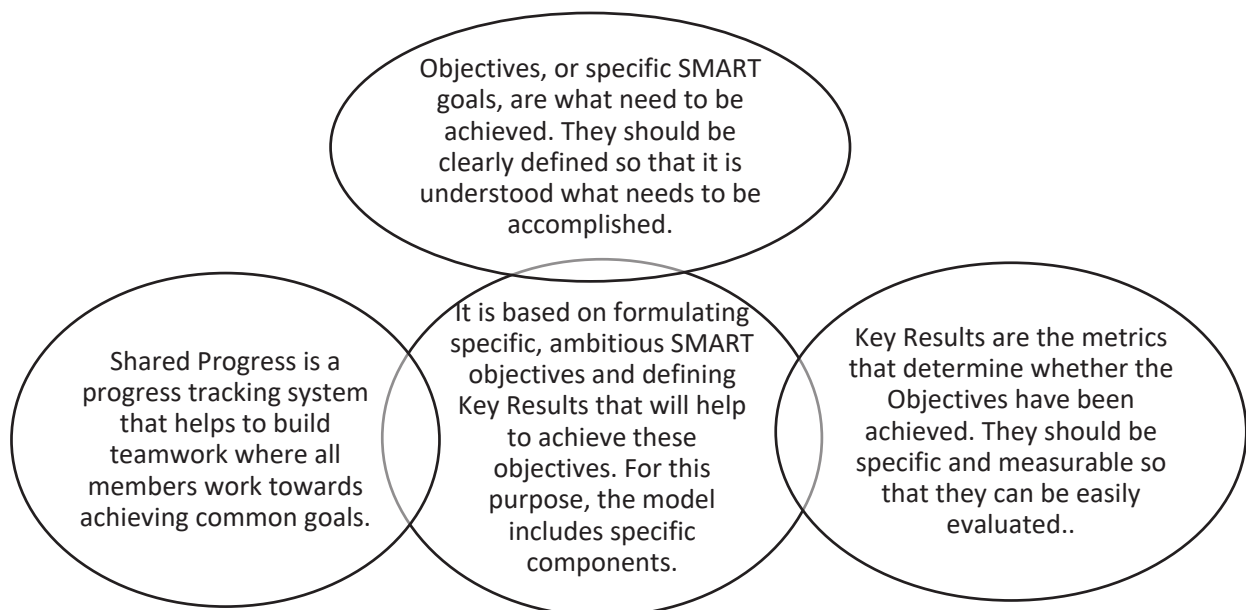
The use of SMART management techniques can greatly benefit organizations in two ways. Firstly, it allows them to concentrate on specific goals and metrics for achievement, which helps to ensure that efforts are focused on what matters. Secondly, it provides managers with a clear understanding of their objectives and the strategies necessary to achieve them. In fact, in all cases where this model has been implemented, users have reported significant improvements in goal management and a corresponding increase in business results.

However, it should be noted that the SMART-OKR methodology does not have universal solutions in building management, and is only effective if individual needs and organizational conditions are taken into account before its implementation. The components and features of the SMART-OKR model (shown in Figure 1) allow it to be identified as one that provides goal management and ways to achieve them through clear metrics (or indicators that accurately and unambiguously determine whether a specific goal or result has been achieved).

The ownership of the SMARTER model is not associated with any particular person or

group. This model was developed by improving and expanding on the previous SMART model and is the result of the collaborative effort of many experts in the field of human resource management and management. Currently, this model is widely used in strategic and tactical management. For example, the SMARTER model is utilized by well-known global companies like Coca-Cola to define objectives for their products and marketing campaigns, and evaluate the effectiveness of their operations [4]. Furthermore, Coca-Cola uses the SMARTER methodology to manage its corporate responsibility and sustainable development programs. Along with Coca-Cola, international companies such as Apple, Procter & Gamble, IBM, General Electric, and the domestic company Nova Poshta (a subsidiary of iPost Progress LLC) use this model to formulate their business goals and determine strategies to achieve them [4]. Moreover, they use this model to assess their work outcomes and establish new objectives for the future. The experience of such SMART management focuses on the fact that it can help an organization: in formulating effective and achievable goals; with systematic monitoring of goal achievement; with reviewing goals if necessary.

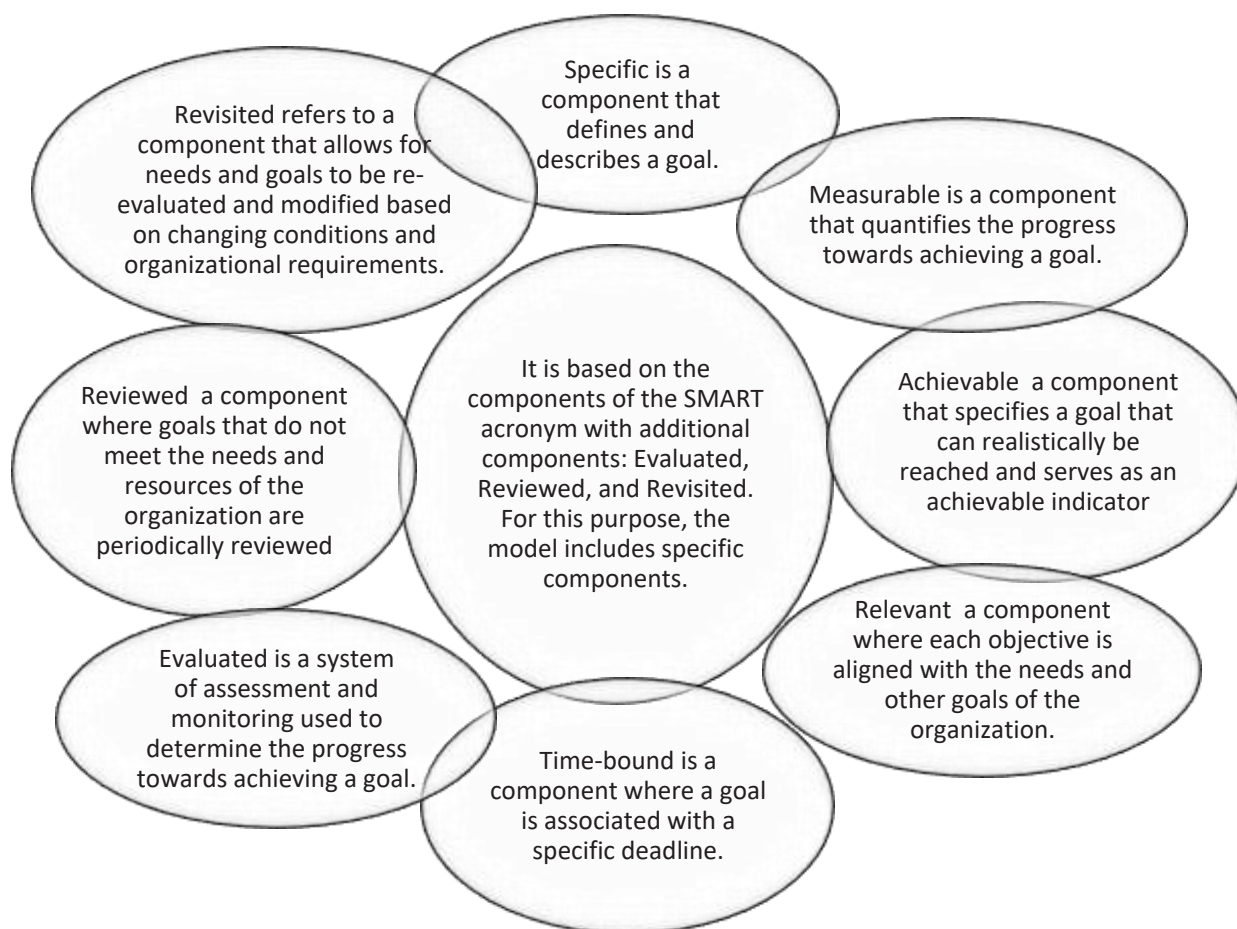
In fact, in all cases of using the model, it helped the user to focus on important issues and ensure productivity. The main idea of SMARTER is to formulate goals that are Specific, Measurable, Achievable, Relevant, Time-bound, Evaluated, Reviewed, and Reassessed. The components and features of the SMARTER model (shown in Figure 2) enable it to be identified as one that provides



**Figure 1. Components and features of the SMART-OKR model application**

*Source: Formulated based on [1–2; 6]*





**Figure 2. Components and features of the SMARTER model application**

*Source: Formulated based on [1–2; 6]*

goal management and ways of achieving them through specific evaluative indicators.

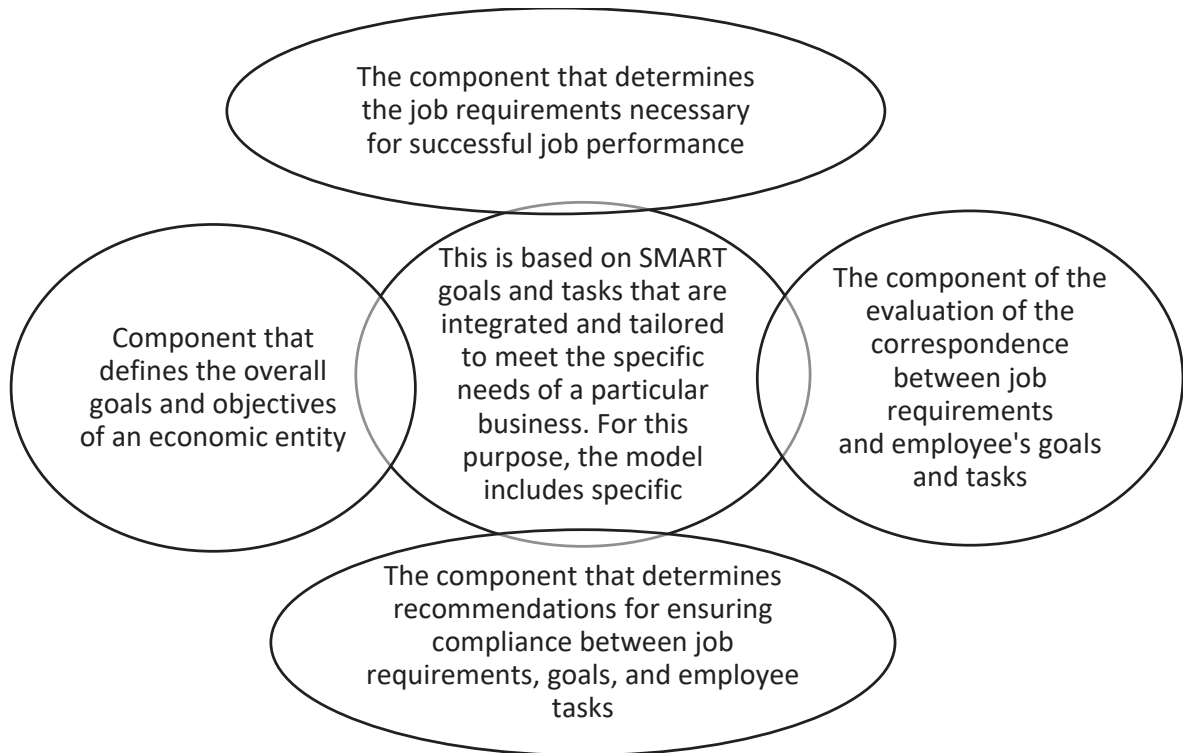
The SMART-FIT model was developed to improve the personnel testing process. It was created in the early 2000s by Jeff Perry and Jeff Miles at Microsoft and has been actively used in SMART management since 2005. The fundamental concept behind the SMART-FIT model is that goal-setting should be done based on the results of prior testing of each employee's goals and tasks, which should then be integrated into the overarching SMART goals and tasks of the economic entity.

Currently, the SMART-FIT model is actively used in companies specializing in sports equipment or a healthy lifestyle, including LLC "Fitness Trading," in the context of organizational management and personnel development to determine the alignment between job requirements, goals, and employee tasks [4]. The model is based on the theory that an employee's work efficiency depends on how well they match the specific job requirements and the complexity and demands of the position itself.

The components and features of the SMART-FIT model (shown in Figure 3) allow it to be

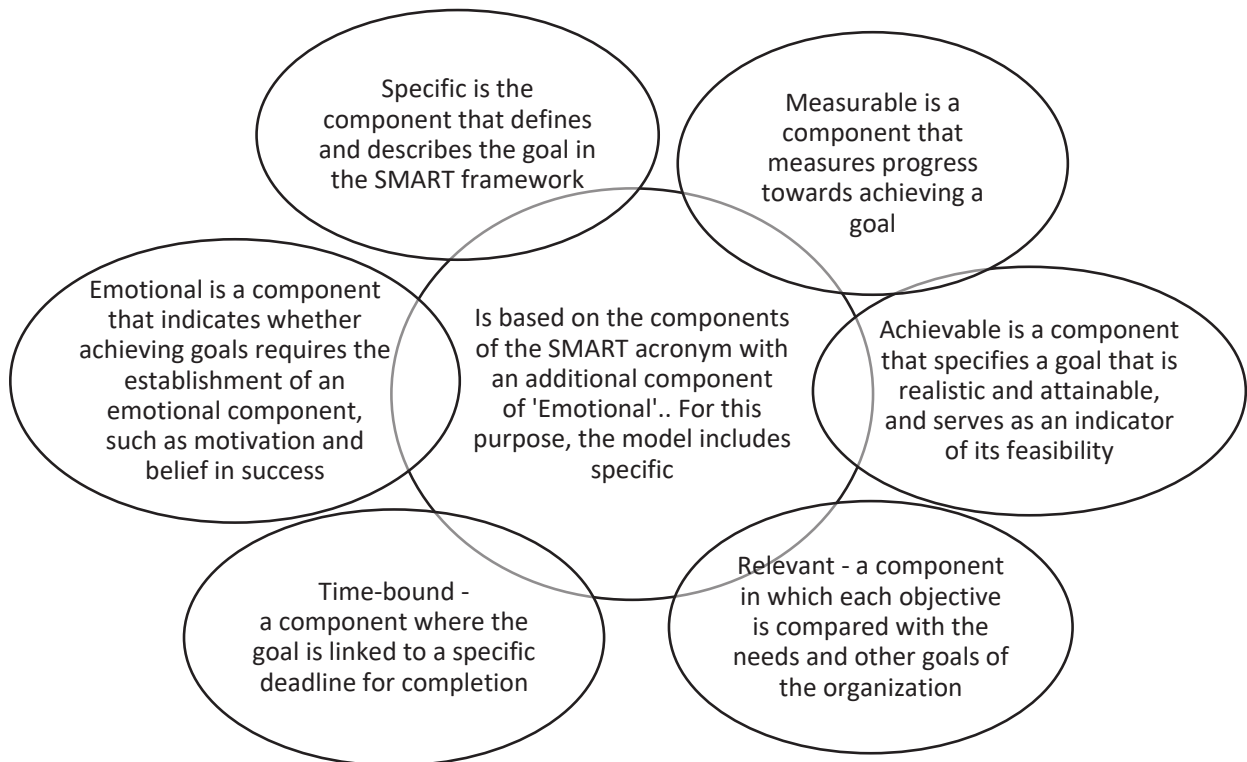
identified as one that provides goal management and paths to achieve them through individual development plans to ensure successful job performance.

The SMART-ER model began to be actively applied in business in the early 2000s. The main idea of the SMART-ER model is not only to formulate a goal and ensure constant monitoring of its implementation but also to make necessary adjustments to the process of achieving it, taking into account the need to establish an emotional component. Currently, there is no information on large companies using the SMART-ER model, but based on the experience of Gifty [1], it can be concluded that the model can be useful for companies that [4]: 1) want to ensure more accurate control over the achievement of their goals; 2) are working on specific tasks that require constant evaluation and correction of emotional components, such as motivation and belief in success. The components and features of the SMART-FIT model (outlined in Figure 4) enable its identification as one that facilitates goal management and achievement pathways through the adjustment of the emotional component.



**Figure 3. Components and features of the SMART-FIT model application**

*Source: Formulated based on [1-2; 6]*



**Figure 4. Components and features of the SMART-FIT model application**

*Source: Formulated based on [1-2]*

Therefore, any of the SMART management models mentioned above enables goal management according to specific criteria, which

should ensure their specificity, measurability, achievability, relevance, and time-bound nature. Taking these criteria into account helps to

increase management efficiency and ensures the achievement of higher-quality results.

The overall effectiveness of SMART management models is related to the unity of characteristics that form their systemic feature (Table 2), which ensures a standardized nature of the instrumental environment that is used to manage the enterprise.

In particular, regardless of whether these models are used separately or in combination to achieve success in enterprise management, their instrumental environment for enterprise management is practically identical.

That is why all the outlined models are generalized under the term SMART, the instrumental environment of which includes: (1) goal-setting markers; (2) task markers; (3) key result markers; (4) monitoring and evaluation markers; (5) reporting markers; (6) planning markers; (7) resource markers. The characterization of the instrumental environment of SMART management models is given in Figure 5.

Actually, the entire suite of tools in the SMART management model is marked. A marked environment is one that contains markers or key elements used to describe, measure, monitor, and evaluate different aspects of management. In the context of SMART management, this is because abstract means are employed in the management process that assists managers in achieving their goals and objectives by efficiently utilizing resources.

In fact, any method, technique, process, software, or other tool that enables managers to better organize enterprise management in accordance with the goals based on the SMART acronyms can become an element of the SMART management instrumental environment.

**Conclusions from this study and further prospects in this direction.** According to research findings, it has been proven that the SMART management concept is based on the utilization of tools and methods aimed at synchronizing individual employee goals with the organization's objectives. In this case, the research results lead to the following conclusions:

The classical SMART model is not the only approach in SMART management. By incorporating both domestic and international experiences in this field, several other models have been identified, such as SMART-OKR, SMARTER, SMART-FIT, and SMART-ER. The primary differences between these models lie in their approach to the components of the acronym used for formulating and managing goals.

Any of the SMART management models allow for goal management according to specific criteria, which should ensure their specificity, measurability, attainability, relevance, and time-bound nature. Considering these criteria helps to increase the effectiveness of management and ensures the achievement of higher-quality results. The overall effectiveness of SMART management models is related to the overall unity of features that form their systemic

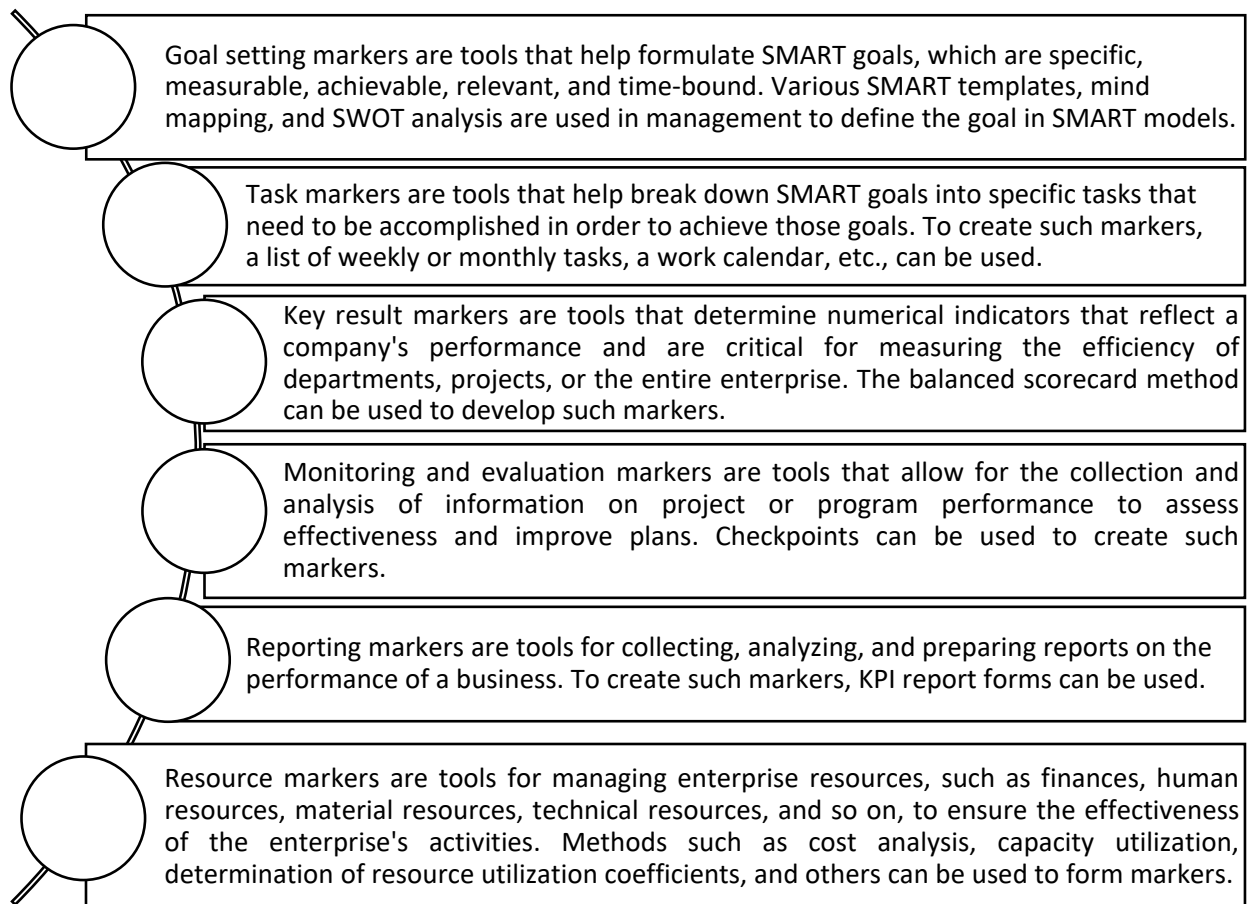
Table 2

Systemic feature of modern SMART management models

Model	Features of application	Instrumental Environment for Models						
		1	2	3	4	5	6	7
SMART -OKR	It is based on formulating specific, ambitious SMART goals (Objectives) and identifying key results that will help achieve these goals.	+	+	+	+	+	+	+
SMARTER	Based on the components of the SMART acronym with additional components: Evaluated, Reviewed, and Revisited. This helps to ensure continual improvement and updating of SMART goals and tasks	+	+	+	+	+	-	+
SMART-FIT	It is based on integrated SMART goals and tasks that are most relevant to a particular enterprise. Its aim is to ensure that management is adapted to a specific industry and company	+	+	+	+	+	+	+
SMART-ER	Based on the components of the SMART acronym with an additional "Emotional" element, this approach helps businesses identify which emotions can contribute to the achievement of SMART goals and objectives, and how they can be utilized to improve results.	+	+	+	+	+	-	+

Note: an instrumental environment of models used for managing a business: (1) goal-setting markers; (2) goal detailing markers; (3) key results markers; (4) monitoring and evaluation dots; (5) reporting markers; (6) planning markers; (7) resource markers.

Source: formulated based on [4]



**Figure 5. Characteristics of the instrumental environment of SMART management models**

Source: Formulated based on [1; 3–4]

characteristics, providing a standardized nature of the instrumental environment that is used for enterprise management.

The SMART management toolset structure used for enterprise management is identical regardless of the model used. This is why all the described models are grouped under the term SMART, whose toolset includes goal-setting markers, task markers, key result markers, monitoring and evaluation markers, reporting markers, planning markers, and resource markers. The general conclusions from this study

show that SMART management is a concept that allows for increased efficiency in management, but it requires employees to take on greater responsibility and motivates them to achieve higher results. Thus, further prospects in this direction are associated with the development of new tools and methods for managing according to SMART principles. For example, such tools could include employee performance evaluation systems, automated monitoring and control systems for task execution, applications for tracking and analyzing work results, and so on.

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