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THE MATRIX OF GROWTH AND DEVELOPMENT: A NEW FRAMEWORK FOR THE CONVERGENCE OF GROWTH AND DEVELOPMENT IN ORGANIZATIONS

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Management and organizational studies have traditionally relied on the concepts of growth and development. Due to the juxtaposition of these terms and their diverse implications, there may be some confusion and misinterpretation in academic and practical contexts. The aim of the research was to investigate the definitions and functions of growth and development in management and the organizational sphere in order to offer a better understanding of the varied roles of these concepts and their contributions to organizational evolution. To accomplish this, a comprehensive study of the literature was conducted, in which a review of seminal publications and major contributions by notable researchers was carried out and various scholars' perspectives on growth and development were assessed. Furthermore, an effort was made to identify major themes, similarities, and differences in the available literature. This study showed that the main focus of growth is quantitative expansion. Development, on the other hand, is concerned with qualitative advancements. It is also argued that growth and development should be sought continuously in order for an organization to remain successful in the long run, since they may be inextricably linked. Based on these findings, a conceptual framework is presented that converges growth and development in the organization as a system for long-term sustainability. By adopting this framework as the foundation for future research, scholars and practitioners will be able to better understand the different yet interconnected nature of growth and development in organizations. Furthermore, this study may provide assistance to managers striving to navigate growth and development, allowing for a more managerial approach to organizational success in a rapidly changing global environment.

Keywords: growth and development, systems thinking, management and organization

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1. INTRODUCTION

The concepts of both growth and development have been investigated in various branches of science, with distinct qualities that might differ from one another while yet having commonalities. According to Ackoff (1999b), a pioneer in systems thinking and organizational studies, growth and development are not synonymous and can occur independently of one another. In the context of social science and organizational studies, growth is defined as an increase in size, which may vary according to the numeric element, such as the number of employees, the number of units, and other specific terms that may have a quantitative relationship with the expansion of the overall structure of an organization in the form of an institution, enterprise, company, corporation, and so on (Filley, Aldag, 1990). In contrast, organizational studies describe development as the actions taken to influence an organization's processes in order to increase effectiveness, which ultimately results in change (Beckhard, 2011; Gohil, Deshpande, 2014).

Despite the fact that, in many fields of social science, definitions of growth and development are rather broad, notably in organization and management, there is a divergence in their application. The key challenge may be figuring out how to bring these two processes together so that they may accompany the organization's evolution as a system (Ackoff, 1999a). Ackoff (1999b) highlighted the distinction between growth and development as a connotation for efficiency and effectiveness, emphasizing the typical error of misinterpreting these two processes as synonyms. At the same time, it is not impossible to provide a platform for constructing multifaceted frameworks via a systems perspective, with an emphasis on growth and development in particular (Abreu Pederzini, 2019; Drucker, 2007b; Eden, Nielsen, 2020; Okręglicka, Gorzeń-Mitka, Ogorean, 2015).

To encourage long-term growth and/or development of the organizational system, many scholars have attempted to discuss the concepts of growth and development in a variety of fields related to management and organizational studies (Ackoff, 1999a, 1999b; Bruton, Ahlstrom, Obloj, 2008; Greiner, 1989; Kaleta, Radomska, Sołoducho-Pelc, 2018; Kanter, 1984; Kimberly, 1979; Senge, 2010; Starbuck, 1965; Witek-Crabb, 2014). However, a lack of convergence between growth and development as two important processes may affect an organization's progress in its lifecycle by presenting various challenges. Similarly, failure to discern between these processes may amplify complexity and complication issues and undermine an organization's capacity to function effectively throughout its lifecycle. For example, organizations may favor quantitative expansion over qualitative changes, resulting in unsustainable practices and rash decisions. For organizations to achieve long-term success, a balanced approach that encompasses both growth and development may be crucial (Ackoff, 1999b; Greiner, 1998; Lewis, Churchill, 1987).

The problem emerges, however, when there is no clear definition of growth and of development as two distinct processes with particular qualities that could poten-

tially be used in organizations. It is unclear to what extent the concepts of growth and development are conflated in management and organizational literature, both in academia and in practice.

The goal of this study was to address this issue by looking at the importance of distinguishing the definition and roles of growth and development as two key processes in the context of management and organization in order to develop a new framework in the field: a matrix of growth and development. The purpose of this study was to build on prior research conducted as a systematic literature review (Pourahmadi, Kalkowska, 2022). Therefore, the main research questions in this study were:

- RQ1: Is it reasonable to establish a new framework in the field of management and organization that converges the processes of growth and development in a matrix?
- RQ2: What are the primary elements of a framework that could potentially converge growth and development in an organization?
- RQ3: Is it possible to measure growth and development as two separate processes but in a convergent manner?

2. METHODOLOGY

In this paper, which is a continuation of a previous publication (Pourahmadi, Kalkowska, 2022), an attempt was made to elucidate further on the matrix of growth and development in order to broaden this framework for future research. Similarly, a thorough examination was conducted of the linked criteria critical to the framework essence to answer the research questions. Accordingly, an effort was made to provide a focused review of the literature relevant to the key concepts of growth and development. Moreover, to elaborate on RQ1, various scholars' points of view are examined and discussed in order to provide a landscape for the possibility of the establishment of a new framework which could potentially converge growth and development in a matrix format.

Furthermore, to expound on RQ2, the matrix of growth and development is introduced by defining growth and development within the matrix and how it might become practical in a conceptual manner via a systems perspective. Similarly, the potential integration for growth and development in connection to the surroundings and the environment is illustrated. In addition, to elaborate on RQ3, it is shown that the convergence of growth and development in organizations might be achievable via a potential measuring scale. Furthermore, a measuring diagram within the matrix of growth and development is proposed.

All in all, the conceptual parts of this paper may constitute the first steps towards more advanced research in terms of putting this framework to the test for reliability and validity in future transdisciplinary research.

3. LITERATURE REVIEW

3.1. Overview of the Concepts of Growth and Development

3.1.1. Key Concept in Growth

The term “growth” may have multiple definitions in different contexts in various scientific areas, but the essence of its functionality seems to be the same. One of the domains where the term “growth” has been defined more precisely is biology. For example, in the human body, growth is its process of increasing in size which occurs in phases throughout an individual’s lifespan and it may be influenced by factors that impact how it takes place (Balasundaram, Avulakunta, 2022; Marciniak, 2019). According to some scholars, there are similarities in the growth processes of humans, plants, and animals in the natural world (Lampl, 2022; Phelps et al., 2007). Meanwhile, a system made up of a group of individuals who collaborate to accomplish a common objective in an organized way is known as an organization (Selznick, 1948). From a systems perspective, growth may be defined as an increase in size, number, the quantity of earnings, or the index required to estimate the total expansion of a system (Ackoff, 2004). In Table 1, the possible definitions of growth from different fields of science are examined.

Table 1. Growth definition from the perspective of different fields.

Discipline	Definition of Growth	References
Biology	The process through which an organism’s size, mass, and number of cells grow as a result of cell division, differentiation, resulting in the formation of tissues, organs, and organisms.	Balasundaram, Avulakunta, 2022; Bogin, 2015
Psychology	Personal growth: a process including personal and mental growth that may result in total changes including cognitive, emotional, and social changes, as well as individual maturity and psychological growth.	Maurer, Hoff, Daukantaitė, 2023
Economy	Economic growth refers to a sustained increase in a country’s production, goods, and wealth over time, usually measured by GDP or GNP.	Alfano, 2021; van Meerhaeghe, 1986

Furthermore, growth is a term that is used in many areas of research and practice, but more information is needed in relation to human organizations and the construction of systems within the context of management and organization. Humans are one of the most important factors in the building blocks of organizations. Moreover, the organization passes through several stages of growth depending on the activities during its lifecycle (Greiner, 1989). In light of this, it could be possible to characterize organizational growth from an organismic perspective

(Phelps et al., 2007). Yet, since individuals in organizations as systems (social systems), in contrast to organisms in biological systems (animated systems), have their own purposes and goals, it must be taken into account that an organization as a whole, of which humans are a component, is highly complex (Ackoff, 1999b).

Moreover, in the organizational sphere, stages of growth take place in the lifecycle of organizations, and they are affected by various factors (Kazanjian, Drazin, 1989). Similarly, “growth” in an organization may be defined as an increase in efficiency, a gain in profit, an expansion in the organization’s size, or a rise in the number of individuals and units (Weinzimmer, 2000). According to Greiner (1989), organizational growth is not linear due to the turbulent circumstances that each organization may encounter at various points throughout its lifecycle. Likewise, multiple factors, including internal elements and interactions with the external environment, can impact the growth process of an organization (Gupta, Krishnaswami, 2013).

3.1.2. Key Concepts of Development

Parallel to growth, the term “development” has a variety of meanings in many fields of research. According to Ackoff (2004), development may be defined as an increase in competence, learning capacity, ability to change, lifecycle quality, and doing the right thing.

In the realm of economics and political science, the early appearance of studies on the term “development” in relation to economic growth arose in the United States in the 1940s. These studies were a way of approaching foreign policy challenges in order to oppose the communist Soviet bloc’s influence on the emerging newly independent states. This approach entailed social scientists elaborating on this specific term and offering theories on the development of nations (Halperin, 2018).

In the domain of psychology, Erikson (1968) proposed that an individual’s psychological development might progress through eight phases in the human lifecycle, from infancy to adulthood (Erikson, 1968). He contends that developmental processes are linked to three major processes: biological (sama), psychological (psyche), and cultural (ethos), all of which can influence an individual’s identity (Poole, Snarey, 2011; Ragelienė, 2016). Furthermore, Kohlberg proposed a theory of moral development that includes cognitive stages of moral reasoning in children, as well as how moral development takes place in humans (Walrath, 2011; Yilmaz, Bahçekapili, Sevi, 2019).

At the same time, in biology, there is a branch named “evolutionary developmental biology” with the short name of “evo_devo”, which is the study of how changes in embryonic development occurring throughout single generations connect to evolutionary changes that take place between generations (Hall, 2012). While this field is considered one of the fundamental pillars of biology, there is

still a challenge as to how the term “development” should be defined. Indeed, it is said that this field is experiencing an erosion of ideas and there may be a need to return to elaborating on the field’s fundamental questions (Minelli, Pradeu, 2014; Stern, 2022).

As stated by some scholars, the first phase of the Hardwood studies, which took place between 1939 and 1947, laid the groundwork for the field of organizational development (OD) (Burnes, 2007). Kurt Lewin, one of the most prominent psychologists of his time, launched a new chapter in the study of organizational change and development with his ideas and lifelong efforts, which marked the beginning of the area of organizational development (Burnes, Cooke, 2012; Hussain et al., 2018). According to Beckhard (2011), OD is a process of several stages embodied in an attempt to plan for an organization as a whole in a top-down approach in order to amplify organizational effectiveness and its all-around health via the field of behavioral science. Moreover, an organization’s iterative evolution throughout the course of its lifespan may be characterized as organizational development from a business viewpoint (Cloutier, 2016). Furthermore, in an alternative development criteria, Krupski (2011) proposes an approach that involves discovering an organization’s potential by considering balanced or unbalanced categories, which may aid in identifying the organization’s strategic potential through the use of complexity theory and the concept of the edge of chaos.

In accordance with the United Nations (UN) agenda for development, “development is a multidimensional undertaking to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development” (Nation, 1997). The term “sustainable development” originated at the 1992 United Nations Conference on Environment and Development, coined the “Brundtland Report”, where 178 countries agreed on the urgent need to strike a balance between environmental protection and the development of various nations’ economic and social systems over the globe (Segger, Khalfan, 2004). Scholars from different disciplines may have various interpretations and conceptualizations of the term “development” (Mensah, 2019), but they may all share the same general utility. The possible definitions of the term “development” in multiple disciplines are addressed in Table 2.

Table 2. Definition of development through the lens of different disciplines

Disciplines	Definition of Development	References
Biology	The transformation of an organism from a single cell to a mature, fully functioning organism with untie structures and functions.	Love, 2022
Psychology	A series of changes that occur during a person’s mental and emotional sense of identity, and social interaction across their lifespan, including maturity and learning.	Ragelienė, 2016; Sodian, 2009

Disciplines	Definition of Development	References
Economy	The process of long-term quality improvement of a region's or country's total well-being, frequently through improved efficacy and moving the economy toward a better-growing trajectory, as well as human development indices and sustainability criteria.	Feldman et al., 2015
Sustainable Development	To address current needs without compromising future generations' opportunity to meet their own needs via development.	Emas, 2015; Wheeler, 2014

4. DISCUSSION

The range of areas required to describe all elements of growth and development is too vast to be covered in one paper. Therefore, the focus here is on topics of management and organization that are relevant to the purpose of this study. Moreover, considering the overview of the literature, it could be understood that the definitions for the term “growth” as an increase and expansion in size, mass, numbers, and complexity (Dawson, 2001; Marciniak, 2019), along with “development” as a change in the behavior of a system that may lead to evolution and/or progress through different phases (Basadur, Basadur, Licina, 2012; Bogin, 2015), may complement one another (Ackoff, 1999a).

According to some researchers, the notion of OD and its research criteria for applying knowledge in organizations for improvement and change have declined and should return to their primary emphasis in order to meet contemporary concerns (Cummings, Cummings, 2020). Similarly, another research study found that various characteristics, such as a lack of definitions and distinctions, a lack of quality control, an inadequate emphasis on customer demands, a lack of efficacy, and so on, have been recognized as obstacles in this field (Wirtenberg et al., 2004).

Furthermore, Greiner, an esteemed scholar in management and organizational studies, established the growth model as a framework for understanding evolution and revolution as organizations grow (Greiner, 1989; Poulfelt, Buono, 2017). He classifies different stages of organizational growth as important for organizational development, such as creativity, direction, delegation, coordination, collaboration, and alliance (Greiner, 1997).

Starbuck (1965) wrote a chapter on organizational growth and development that included a thorough analysis of the foundations of organizational growth and development. He concluded that there is a need for an integrated approach that may potentially collect data for all elements of an organization's growth and development. Moreover, he contended that the issue of growth and development needs a comprehensive holistic theory that encompasses all components in an integrated manner (Starbuck, 1965). It is possible to note that the number of clusters working

on growth and development independently is broad, extensive, and in some cases difficult to investigate, which underlines the importance of the emergence of a holistic and integrative approach. Indeed, it indicates an opportunity for the emergence of a new framework that tackles the necessities of growth and development in a more holistic manner (RQ1).

In a different vein, some scholars have already highlighted the significance of the link between growth and development. Ackoff (1999) contended that growth and development are distinct processes that can strengthen one another (Ackoff, 1999a). He compared growth with knowledge/efficiency and development with wisdom/effectiveness (Ackoff, 1989). Moreover, the relationship between business growth and organizational development has been investigated, and it has also been found that this relationship could be multifaceted and perplexing due to the complexity of the associated parts (Witek-Crabb, 2014). Furthermore, such information might be utilized to support the establishment of a multidimensional framework that addresses both growth and development. Altogether, this reasoning may provide a potential answer to RQ1 in this study.

At the same time, the comprehensive examination of the strategic management literature aimed at identifying the relationship between growth and development revealed that the research criteria to expand completely on the convergence of growth and development had limits and gaps. This indicates that the field of strategic management necessitates a fresh approach in terms of the research criteria for growth and development (Pourahmadi, Kalkowska, 2022). Moreover, an overview of strategic management frameworks reveals that, while concepts such as resource-based views (RBV) and balanced scorecard (BSC) focus on internal elements related to firm performance and strategic alignment, tools such as SWOT, BCG, the Ansoff and the GE McKinsey matrices provide strategic direction by taking both internal competencies and external marketplace conditions into account (Ansoff, 1957; Barney, 1991; Kaplan, Norton, 1992; McKinsey, Company, 2008; Puyt et al., 2023). Additionally, in its applications, the Ansoff matrix covers growth strategies, while SWOT analysis gives insights into situations that may contribute to business growth. Nevertheless, while these frameworks offer valuable strategic insights, none of them take a comprehensive view of organizational growth and development in order to deliver a grand strategic perspective from a system viewpoint.

From a different perspective, it appears that the mechanisms of growth and development might both operate as independent scales to measure certain changes in a system's lifespan: an increase in numbers for growth and development as an increase in competence and abilities (Ackoff, 2004), which could have a complementary influence on one another if they converge in a framework with a multifarious measuring scale system. This could serve as a response to RQ1, and also as an adequate common ground for the establishment of the growth and development matrix as a comprehensive framework (in response to RQ2 and RQ3), which will be laid out in this paper.

5. THE MATRIX OF GROWTH AND DEVELOPMENT

This paper is a continuation of previous research conducted by (Pourahmadi, Kalkowska, 2022) as a systematic literature review to characterize the relationship between growth and development in the context of strategic management via systems thinking. At the same time, the matrix of growth and development framework is the result of the aforementioned review (see Fig. 1). Furthermore, the answer to RQ2 will be investigated in this section.

A system may be defined as a whole comprised of various parts that perform specific functions in the environment. While systems may be simple or complex, they can also be purposeful or not purposeful (Ackoff, 1971; Ackoff, 1999b). System types are classified by Ackoff into four categories: deterministic systems, animated systems, social systems, and ecological systems (Ackoff, Emery, 1972). In this framework, organizations are viewed as social systems in which both the parts and the whole have their own purpose. Moreover, the core of systems thinking is incorporated into the matrix of growth and development. As Ackoff emphasizes that systems should not be divided into pieces and that any solution must be applicable to the whole (Ackoff, 1971), growth and development measurement may be used in an integrative manner (system of systems) throughout the entire system in the matrix of growth and development.

In the two-by-two matrix of growth and development, there are four boxes: low growth/low development, low growth/high development, high growth/high development and high growth/low development (see Fig. 1). Additionally, each box shows the system's state in terms of growth and development. How to include measurement in this framework is discussed in the following section.

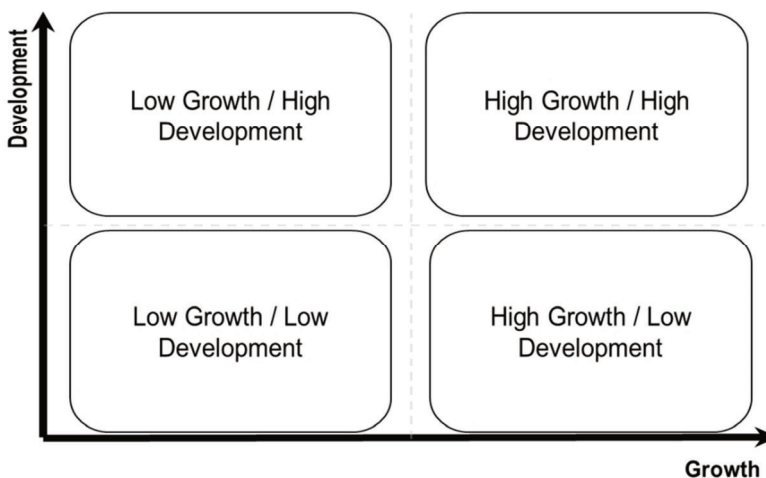


Fig. 1. The Matrix of Growth and Development (Pourahmadi, Kalkowska, 2022)

The growth and development of any organization as a system may be measured via various factors using multifaceted scales. Moreover, growth and development might be assessed using a distinct set of metrics and indicators to offer a convergent assessment of the overall status of the organization. Similarly, this framework may be capable of acting as a dynamic scale to measure these two processes. Moreover, one of the objectives of the growth and development matrix is to provide the possibility of establishing a dynamic generic scale for evaluating growth and development based on the key elements associated with the various circumstances of the system in its surrounding environment.

The implications of the matrix of growth and development may be multifaceted and can be applied across multiple organizational systems on diverse platforms of social, economic, environmental, technological, industrial, political, and cultural systems, and so forth. This might offer a new opportunity for both researchers and practitioners to utilize current frameworks while creating new tools and instruments that could function inside the matrix to improve the condition of growth and development convergence in numerous organizational systems.

5.1. The Concept of Growth in the Matrix

According to the qualifications and definitions of growth from the literature review section (Ackoff, 1999a, 1999b; Balasundaram, Avulakunta, 2022; Cameron, Bogin, 2012; Greiner, 1997; Starbuck, 1965), it may be possible to characterize growth as a term in accordance with the internal and external conditions of the a system, which may lead to an increase in certain qualities of the system in terms of size, number, capacity, etc., impacting the system's inner and outer layer. Therefore, in this framework, "growth" is defined as a process within the system (organization) and as a multifaceted criterion that has increasing/expanding properties that affect various elements of the sub-systems and the system as a whole. Growth properties reflect qualities that could cause change via impact on the system's structure and capacity, both internally and externally, which could be demonstrated via quantitative metrics such as an increase in numbers, size, mass, profitability, and so forth. Furthermore, growth may encompass qualitative spectrum to be measured.

In Figure 2, there is an attempt to demonstrate the conceptual process of growth and its peripheral attachments in conjunction with the arrow of time that has an impact on its surroundings. The arrow of time in this concept corresponds to the one-way direction of time in space-time, providing the landscape for the entire lifespan of systems in the environment ('t Hooft, 2018). According to Drucker (2007a), time is a special resource that is ephemeral and cannot be kept. Executives must take the essentiality of this phenomenon into account while managing their time. Similarly, in Figure 2, the growth process leads to an increase or expansion of the system's structure, infrastructure, and capacity, which could have an impact externally on the system's surroundings and/or internally on the inner sub-systems.

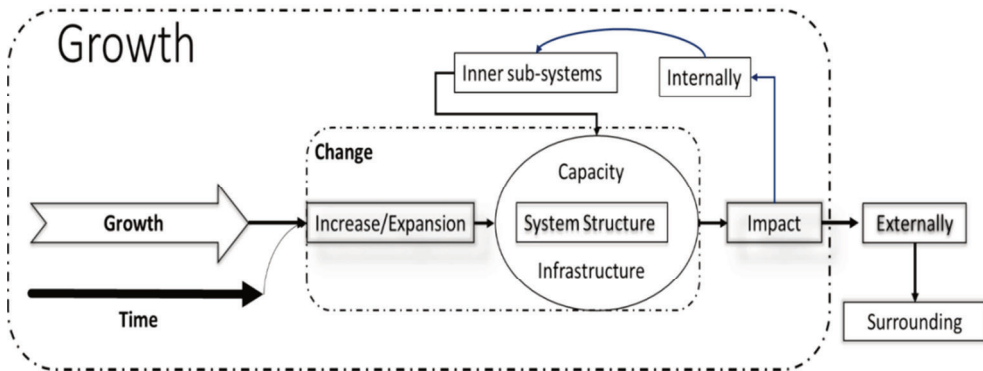


Fig. 2. Conceptual process of growth and its peripheral attachments from a systems thinking perspective (authors’ own study)

5.2. The Concept of Development in the Matrix

By overviewing the result of the literature review (Ackoff, 1999a, 1999b; Beckhard, 2011; Burnes, Cooke, 2012), here we may characterize development process in the system as a process that affect (the software layer) the system in term of behavior in order to utilize the system’s capability for change to adapt and overcome to the condition of its surrounding environment. In this framework, we define “development” as a multifaceted process in the system (organization) that has properties of improvement/enhancement that leverage change by influencing the system’s function, behavior, and capability in order to transform the system toward its progressive form. The development’s impact on the system can be both internal and external, and it can be assessed both qualitatively and quantitatively.

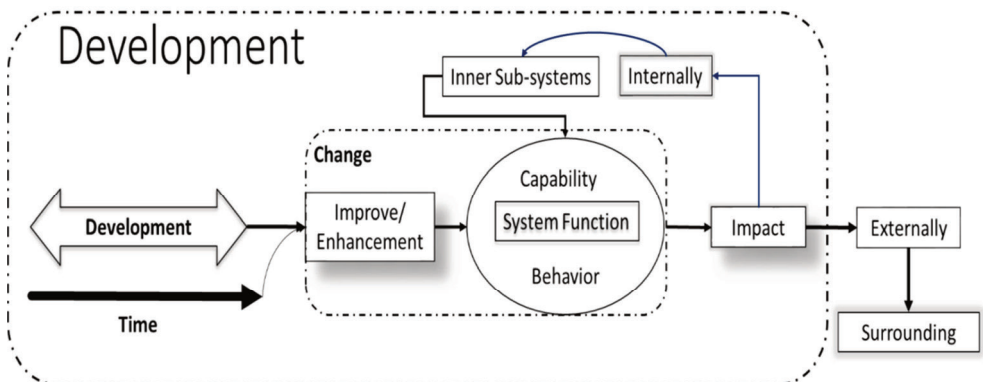


Fig. 3. conceptual process of development and its peripheral attachments from a systems thinking perspective (own study)

Figure 3, illustrate the process of development and its flow in connection with internal and external impact. Accordingly, development flow leads to change by leveraging the system's function, behavior, and capability of the system that could have and external and internal impact. Moreover, development criterion may have both quantitative and qualitative indications.

5.3. Integration of Growth and Development

Integrating growth and development as two separate but interconnected processes that could end up in different cycles within a system may result in the establishment of a unique leverage for managing the system's impact on its surrounding environment, as well as on itself (see Fig. 5). At the same time, in Figure 4, the illustration shows the distinction between the surroundings and environment in order to project the positioning of each system that may interrelate to multiple surroundings, depending on the system's location, and which could eventually be placed in an all-encompassing whole with the environment as the largest container possible (see Fig. 4 and 5).

As Ackoff (1999b) describes social systems as purposeful systems both in parts and as a whole, the impact of growth and development cycles in the system may influence its overall function in term of action and performance. This might result in an ongoing impact on the surrounding area and the environment while the system is operating (see Fig. 5).

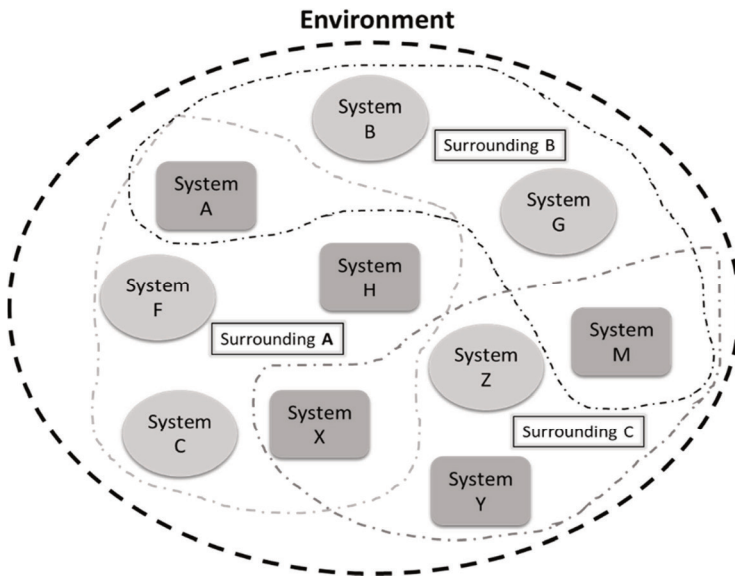


Fig. 4. The difference between surroundings and the environment (authors' own study)

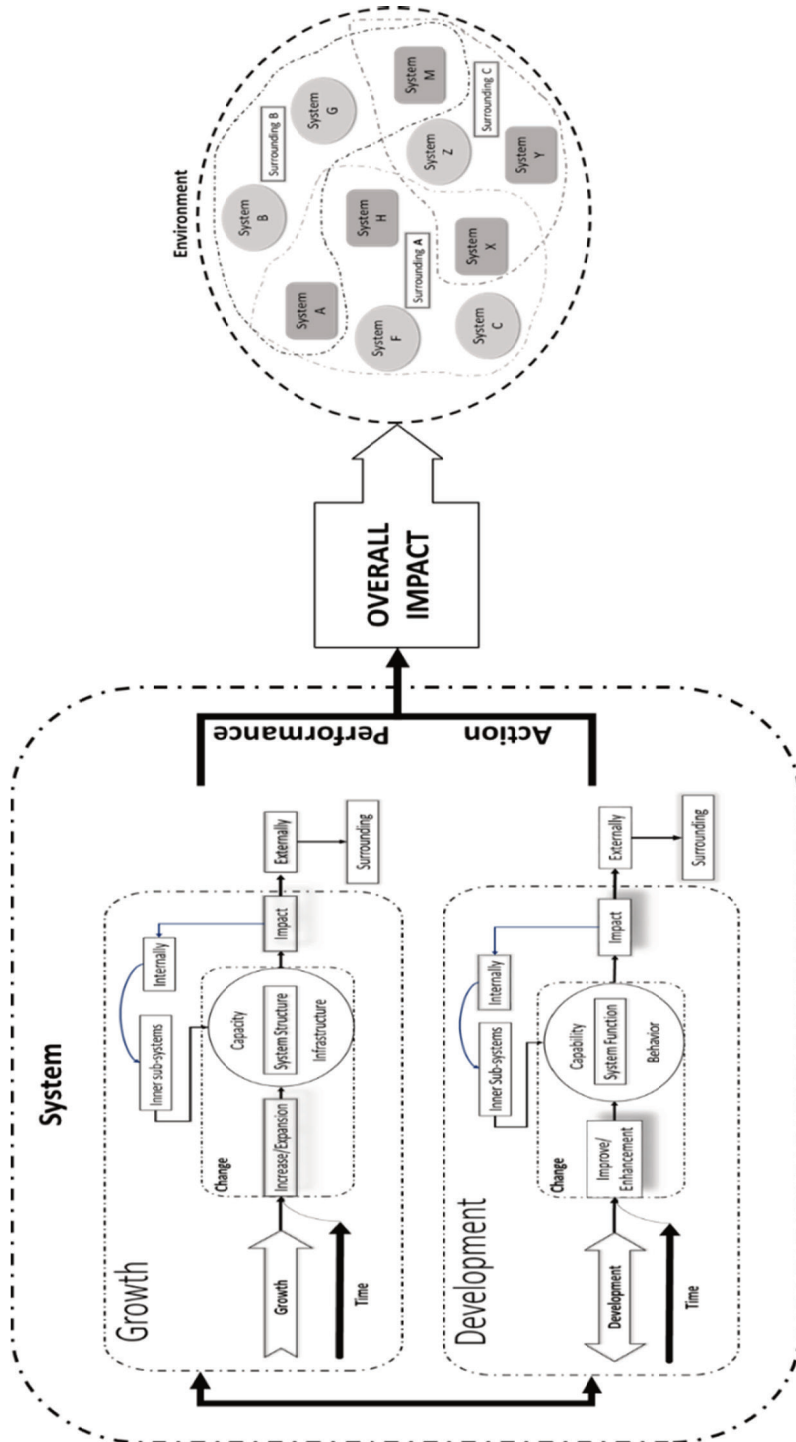


Fig. 5. The impact of growth and development on the surroundings and the environment (authors' own study)

6. CONVERGING GROWTH AND DEVELOPMENT

The framework for the convergence of growth and development attempts to provide a mechanism to converge and assess both growth and development continuously in time and also to provide qualitative and quantitative features for their positioning in an organization’s lifecycle. In addition, in this part, an attempt was made to respond to RQ3 in order to demonstrate the potential of assessing growth and development in a convergent manner through the matrix.

To converge growth and development in this framework, in the outer layer (see Fig. 1), the matrix may provide an infographic of the results of the target system that have been measured through the inner layer (see Fig. 6) in the form of a diagram for the possibility of data collection. Moreover, the method of collecting data may differ in both qualitative and quantitative terms depending on the specialization and contingency of each organization. Figure 6 depicts five stages of growth and development along their axes. Each metric could vary from zero to 100 percent, and at the end, the median and/or average of the whole five sections can project their output to show the intersections of the diagram and finally in the matrix boxes. Furthermore, each metric could be specified contingently based on the state and characteristics of the chosen system (organization) for both growth and development.

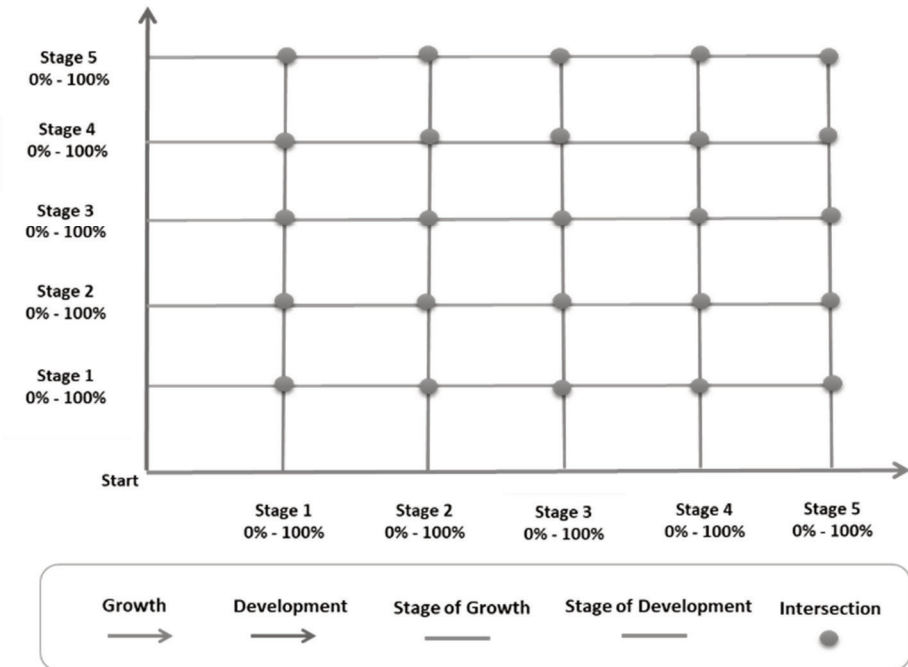


Fig. 6. The inner layer of the matrix for measuring growth and development (authors’ own study)

The potential benefits of this framework could vary in terms of its use to improve any form of systems, from an individual to a group or team, as well as the whole department, and finally the organization as a whole (see Fig. 7). Moreover, it is possible to measure the growth and development of each sub-system, separately. This means that it is possible for an organization to employ multiple matrixes (fractal metaphor) to measure growth and development from different angles before integrating the findings in one overall result.

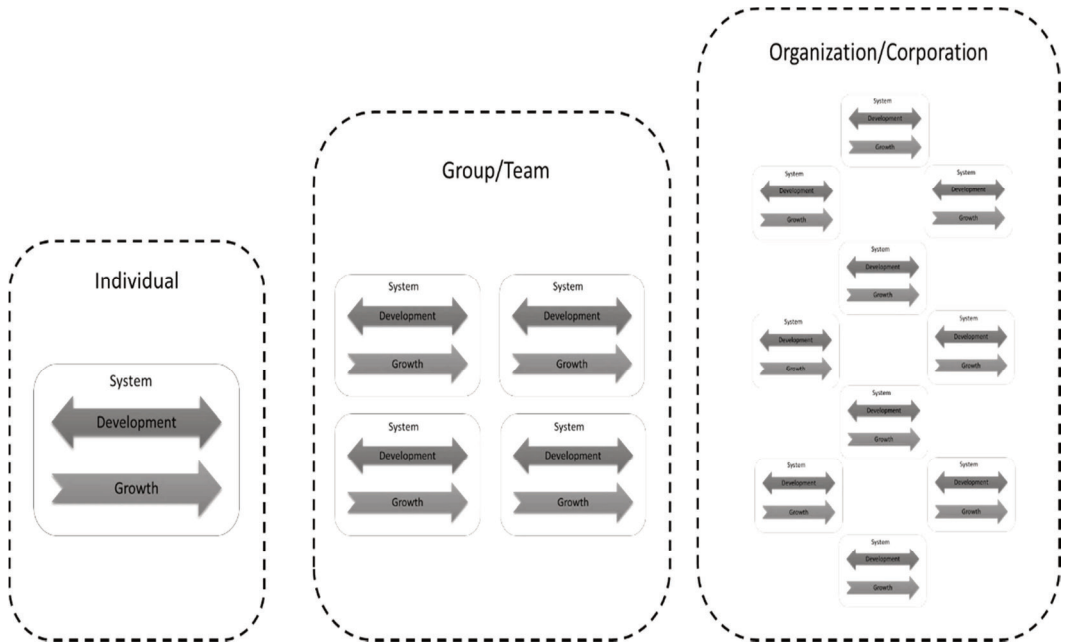


Fig. 7. Forms of the system inside the organization (authors' own study)

The model's current limitation could be that its definitions are not clear enough; it may require more research to classify the actual definition and a clear function of growth and development for a variety of systems in the realm of management and organization, in both an analytical and synthetic manner. As a result, in response to RQ3, it might be possible to measure the many components of growth and development in various organizational forms and integrate their output on a wider scale in a cohesive whole (see Fig. 8).

Additionally, there are opportunities to test this framework and verify its suitability in different organizations in order to confirm the most effective metrics for certain systems in various settings. Managers from the top, middle, and bottom levels of organizations may use this framework to examine their span of management and determine the status of growth and development inside their organization.

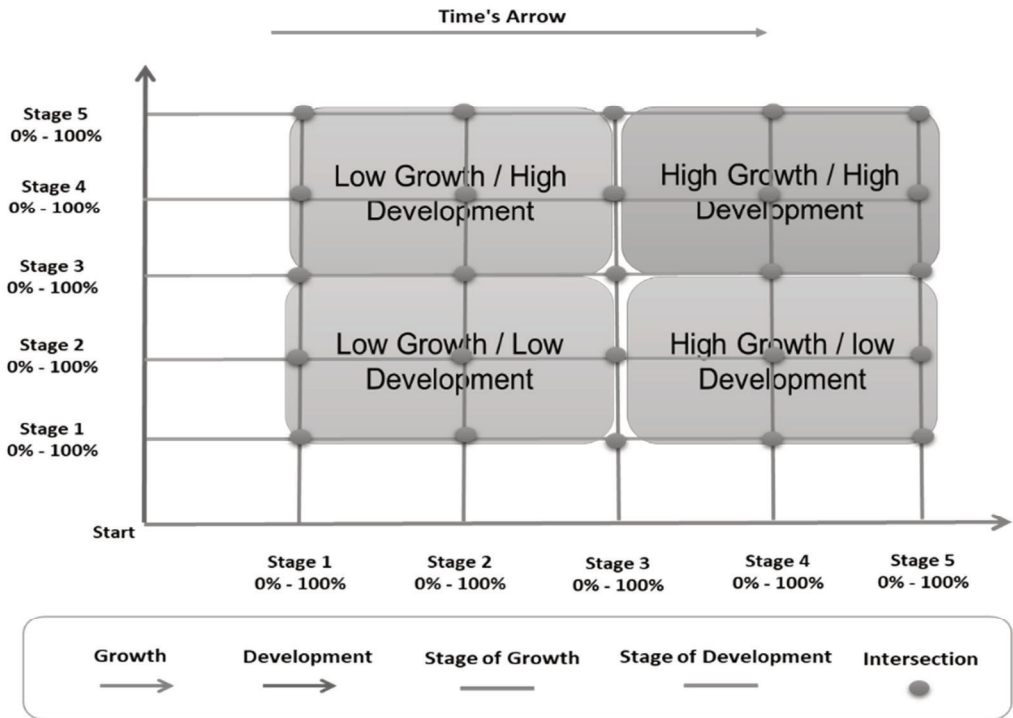


Fig. 8. Mixture of the two layers of the matrix and the measuring diagram for growth and development (authors' own study)

Likewise, this framework may have a fractal application, which means it may be relevant to individual employees, a team, a department, or the entire organization. The metrics for measuring growth and development might be altered based on the organization's priorities and contingencies in line with the criteria it requires at the time.

At the same time, this framework may encounter obstacles and constraints that will need to be addressed for its further evolution. The theoretical part of this framework necessitates transdisciplinary study across several fields of science from a systems viewpoint to provide a comprehensive perspective on growth and development criteria. Likewise, to earn practical credits, the matrix of growth and development must be tested in a variety of organizations and conditions, such as numerous firms, corporations, industries, various forms of public and private institutions, and so on. Altogether, the suggested framework and the measuring layer of the matrix constitute the early stages of this research, paving the way for transdisciplinary studies and expanding the possibilities of its applicability to diverse types of organizations.

7. CONCLUSIONS

For many years, the term growth and development has been employed in management and organizational studies for a variety of objectives. These concepts, however, incorporate substantial processes within their meaning and may have an important impact on the spheres of management and organization. In this study, the aim was to answer the three research questions by developing a framework for converging growth and development based on a comprehensive assessment of past and present studies. Furthermore, an attempt was made to introduce the matrix of growth and development, with a greater emphasis on the concept of growth and development. At the same time, after discussing the responses to the research questions, as well as demonstrating the potentiality for the emergence of such a framework, a definition of growth and development is given from the authors' perspective in this framework. Moreover, it is shown conceptually how the convergence of growth and development can be measured, which may impact the hypothetical organization by differentiating the surrounding environment. As a consequence, in a future study any organization (system) may measure its impact depending on its actions and performance, which are affected by the convergent process of growth and development.

The findings in this research revealed a gap in the convergence of growth and development in management and organization studies in the sense that for managerial purposes, a holistic and comprehensive framework could be established to assist managers in tackling the complex conditions of today's organizations to their essential needs. Furthermore, the matrix of growth and development project the ability to leverage the process of growth and development for potential systems in order to enable them to achieve high growth/high development in a sustainable manner.

Consequently, future study within this framework has the multidimensional capability of providing a scale to frame growth and development for many complex systems in a variety of contexts connected to the spheres of management and organization. Further research in the field of strategic management will be conducted to investigate the impact of growth and development convergence on the competitiveness of an organization and its relationship to its surroundings and the environment, as well as to reexamine the concept of sustainable development. Moreover, as the debate over artificial intelligence (AI) continues, another future direction of this research could be the provision of a scale for the evolution of AI as a complex, emerging system in order to balance its growth and development through metrics that can harmonize its integration with the socioeconomic sphere and all walks of life.

LITERATURE

- Abreu Pederzini, G.D. (2019). Managerial learning challenges in a complex world. *Journal of Work-Applied Management*, 11(1), 17-29.
- Ackoff, R.L. (1971). Towards a System of Systems Concepts. *Management Science*, 17(11), 661-671.
- Ackoff, R.L. (1989). From Data to Wisdom. *Journal of Applied Systems Analysis*.
- Ackoff, R.L. (1999a). *Ackoff's Best: His Classic Writings on Management*. Wiley.
- Ackoff, R.L. (1999b). *Re-creating the Corporation: A Design of Organizations for the 21st Century*. Oxford University Press.
- Ackoff, R.L. (2004). *TRANSFORMING THE SYSTEMS MOVEMENT*.
- Ackoff, R.L., Emery, F.E. (1972). *On Purposeful Systems*. Aldine-Atherton.
- Alfano, M.R. (2021). Economic Growth. In: J. Backhaus (ed.). *Encyclopedia of Law and Economics*. New York, NY: Springer New York, 1-12.
- Ansoff, H.I. (1957). Strategies for diversification. *Harv Bus Rev*, 35(5), 113-124.
- Balasundaram, P., Avulakunta, I.D. (2022). Human Growth and Development *StatPearls*. Treasure Island (FL): StatPearls Publishing.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Basadur, M., Basadur, T., Licina, G. (2012). Organizational development *Handbook of organizational creativity*. Elsevier, 667-703.
- Beckhard, R. (2011). *What Is Organization Development?*
- Bogin, B. (2015). Human Growth and Development. *Basics in Human Evolution*, 285-293.
- Bruton, G., Ahlstrom, D., Obloj, K. (2008). Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future. *Entrepreneurship: Theory and Practice*, 32, 1-14.
- Burnes, B. (2007). Kurt Lewin and the Harwood Studies: The Foundations of OD. *The Journal of Applied Behavioral Science*, 43(2), 213-231.
- Burnes, B., Cooke, B. (2012). Review Article: The past, present and future of organization development: Taking the long view. *Human Relations*, 65(11), 1395-1429.
- Cameron, N., Bogin, B. (2012). *Human Growth and Development*.
- Cloutier, R.P. (2016). Chapter 5 – Concepts of Organization. In: R.P. Cloutier (ed.). *Becoming a Global Chief Security Executive Officer*. Butterworth-Heinemann, 99-143.
- Cummings, T.G., Cummings, C. (2020). The Relevance Challenge in Management and Organization Studies: Bringing Organization Development Back In. *The Journal of Applied Behavioral Science*, 56(4), 521-546.
- Dawson, P. (2001). Organizational Change. In: N.J. Smelser, P.B. Baltes (eds.). *International Encyclopedia of the Social & Behavioral Sciences*. Oxford: Pergamon, 10921-10923.
- Drucker, P.F. (2007a). *The Effective Executive*. Elsevier Health Sciences.
- Drucker, P.F. (2007b). *Management Challenges for the 21st Century*. Butterworth-Heinemann.
- Eden, L., Nielsen, B.B. (2020). Research methods in international business: The challenge of complexity. *J Int Bus Stud*, 51(9), 1609-1620.
- Emas, R. (2015). *The Concept of Sustainable Development: Definition and Defining Principles*.
- Erikson, E.H. (1968). *Identity Youth and Crisis*. W.W. Norton.



- Feldman, M., Hadjimichael, T., Lanahan, L., Kemeny, T. (2015). The logic of economic development: a definition and model for investment. *Environment and Planning C: Government and Policy*, 34(1), 5-21.
- Filley, A.C., Aldag, R. (1990). *Organizational Growth and Types: Lessons from Small Institutions*, 2, 279-320.
- Gohil, S., Deshpande, P. (2014). A Framework to Map a Practice as Organization Development. *Procedia Economics and Finance*, 11, 218-229.
- Greiner, L.E. (1989). Evolution and Revolution as Organizations Grow. In: D. Asch, C. Bowman (eds.). *Readings in Strategic Management*. London: Macmillan Education UK, 373-387.
- Greiner, L.E. (1997). Evolution and Revolution as Organizations Grow: A company's past has clues for management that are critical to future success. *Family Business Review*, 10(4), 397-409.
- Greiner, L.E. (1998). Evolution and revolution as organizations grow. 1972. *Harv Bus Rev*, 76(3), 55-60, 62-56, 68.
- Gupta, P.D., Guha, S., Krishnaswami, S.S. (2013). Firm growth and its determinants. *Journal of Innovation and Entrepreneurship*, 2(1), 15.
- Hall, B.K. (2012). Evolutionary Developmental Biology (Evo-Devo): Past, Present, and Future. *Evolution: Education and Outreach*, 5(2), 184-193.
- Halperin, S. (2018). "development theory". *Development theory*. Retrieved from <https://www.britannica.com/topic/development-theory/The-neoclassical-counterrevolution>.
- 't Hooft, G. (2018). Time, the Arrow of Time, and Quantum Mechanics. *Frontiers in Physics*, 6.
- Hussain, S.T., Lei, S., Akram, T., Haider, M.J., Hussain, S.H., Ali, M. (2018). Kurt Lewin's change model: A critical review of the role of leadership and employee involvement in organizational change. *Journal of Innovation & Knowledge*, 3(3), 123-127.
- Kaleta, A., Radomska, J., Soloduch-Pelc, L. (2018). The relationship between the approach to strategic management and innovativeness in companies of various sizes. *Argumenta Oeconomica*, 40, 203-224.
- Kanter, R.M. (1984). *Change Masters*. Simon & Schuster.
- Kaplan, R.S., Norton, D.P. (1992). The Balanced Scorecard – Measures that Drive Performance. Retrieved from <https://hbr.org/1992/01/the-balanced-scorecard-measures-that-drive-performance-2>.
- Kazanjian, R.K., Drazin, R. (1989). An Empirical Test of a Stage of Growth Progression Model. *Management Science*, 35(12), 1489-1503.
- Kimberly, J. (1979). Issues in the creation of organizations: initiation, innovation, and institutionalization. *Acad Manage J*, 22(3), 437-457.
- Krupski, R. (2011). A new perspective on the potential of organization's development. *Journal of Positive Management*, 2.
- Lampl, M. (2022). Chapter 18 – Biological models of human growth. In: N. Cameron, L.M. Schell (eds.). *Human Growth and Development (Third Edition)*. Boston: Academic Press, 491-516.
- Lewis, V., Churchill, N. (1987). The Five Stages of Small Business Growth. *Harv Bus Rev*, 3.
- Love, A. (2022). *Developmental Biology* (Summer 2022 ed.): Metaphysics Research Lab, Stanford University.
- McKinsey&Company (2008). Enduring Ideas: The GE-McKinsey nine-box matrix. Retrieved from <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/enduring-ideas-the-ge-and-mckinsey-nine-box-matrix>.

- Marciniak, B. (2019). 2 – Growth and Development. In: C.J. Coté, J. Lerman, B.J. Anderson (eds.). *A Practice of Anesthesia for Infants and Children (Sixth Edition)*. Philadelphia: Elsevier, 8-24.e23.
- Maurer, M.M., Maurer, J., Hoff, E., Daukantaitė, D. (2023). What is the process of personal growth? Introducing the Personal Growth Process Model. *New Ideas in Psychology*, 70, 101024.
- van Meerhaeghe, M.A.G. (1986). The Theory of Economic Growth. In: M.A.G. van Meerhaeghe (ed.). *Economic Theory: A Critic's Companion*. Dordrecht: Springer Netherlands, 55-68.
- Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. *Cogent Social Sciences*, 5(1), 1653531.
- Minelli, A., Pradeu, T. (2014). *Towards a Theory of Development*. Oxford University Press.
- Nation, U. (1997). Concept of Development. Retrieved from <https://research.un.org/en/docs/dev>.
- Okreglicka, M., Gorzeń-Mitka, I., Ogorean, C. (2015). Management Challenges in the Context of a Complex View – SMEs Perspective. *Procedia Economics and Finance*, 34, 445–452.
- Phelps, R., Adams, R., Bessant, J. (2007). Life cycles of growing organizations: A review with implications for knowledge and learning. *International Journal of Management Reviews*, 9(1), 1-30.
- Poole, S., Snarey, J. (2011). Erikson's Stages of the Life Cycle. In: S. Goldstein, J.A. Naglieri (eds.). *Encyclopedia of Child Behavior and Development*. Boston, MA: Springer US, 599-603.
- Poufelt, F., Buono, A.F. (2017). Larry E. Greiner: Actionable Knowledge in Action. In: D.B. Szabla, W.A. Pasmore, M.A. Barnes, A.N. Gipson (eds.). *The Palgrave Handbook of Organizational Change Thinkers*. Cham: Springer International Publishing, 543-554.
- Pourahmadi, B., Kalkowska, J. (2022). Characterizing the Relationship between Growth and Development in the Context of Strategic Management via Systems Thinking: A Systematic Literature Review. *Sustainability*, 14(9).
- Puyt, R.W., Lie, F.B., Wilderom, C.P.M. (2023). The origins of SWOT analysis. *Long Range Planning*, 56(3), 102304.
- Ragelienė, T. (2016). Links of Adolescents Identity Development and Relationship with Peers: A Systematic Literature Review. *J Can Acad Child Adolesc Psychiatry*, 25(2), 97-105.
- Segger, M.-C.C., Khalfan, A. (2004). 15 Origins of the Sustainable Development Concept. In: M.-C. Cordonier Segger, A. Khalfan (eds.). *Sustainable Development Law: Principles, Practices, and Prospects*. Oxford University Press. Retrieved from <https://doi.org/10.1093/acprof:oso/9780199276707.003.0002>.
- Selznick, P. (1948). Foundations of the Theory of Organization. *American Sociological Review*, 13(1), 25-35.
- Senge, P.M. (2010). *The Fifth Discipline: The Art & Practice of The Learning Organization*. Crown.
- Sodian, B. (2009). Cognitive Development. In: M.D. Binder, N. Hirokawa, U. Windhorst (eds.). *Encyclopedia of Neuroscience*. Berlin, Heidelberg: Springer, 779-782.
- Starbuck, W. (1965). Organizational growth and development. *Handbook of Organizations (Rand McNally)*, 451-533.
- Stern, C.D. (2022). Reflections on the past, present and future of developmental biology. *Developmental Biology*, 488, 30-34.

- Walrath, R. (2011). Kohlberg's Theory of Moral Development. In: S. Goldstein, J.A. Naglieri (eds.). *Encyclopedia of Child Behavior and Development*. Boston, MA: Springer US, 859-860.
- Weinzimmer, L.G. (2000). A Replication and Extension of Organizational Growth Determinants. *Journal of Business Research*, 48(1), 35-41.
- Wheeler, S. (2014). Sustainable Development. In: A.C. Michalos (ed.). *Encyclopedia of Quality of Life and Well-Being Research*. Dordrecht: Springer Netherlands, 6501-6504.
- Wirtenberg, J., Abrams, L., Ott, C. (2004). Assessing the Field of Organization Development. *The Journal of Applied Behavioral Science*, 40(4), 465-479.
- Witek-Crabb, A. (2014). Business Growth Versus Organizational Development Reflected in Strategic Management of Polish Small, Medium and Large Enterprises. *Procedia – Social and Behavioral Sciences*, 150, 66-76.
- Yilmaz, O., Bahçekapılı, H.G., Sevi, B. (2019). Theory of Moral Development. In: T.K. Shackelford, V.A. Weekes-Shackelford (eds.). *Encyclopedia of Evolutionary Psychological Science*. Cham: Springer International Publishing, 1-5.

MACIERZ WZROSTU I ROZWOJU: NOWA STRUKTURA ŁĄCZENIA WZROSTU I ROZWOJU W ORGANIZACJACH

Streszczenie

Studia nad zarządzaniem i organizacją w sposób tradycyjny opierają się na koncepcji wzrostu i rozwoju. Ze względu na zestawienie tych terminów i ich różnorodne implikacje może dojść do pewnego zamieszania i błędnej interpretacji w kontekście akademickim i praktycznym. Niniejsze badania mają na celu analizę definicji oraz funkcji wzrostu i rozwoju w zarządzaniu oraz sferze organizacyjnej w celu lepszego zrozumienia zróżnicowanych ról tych pojęć i ich wkładu w ewolucję organizacyjną. Aby to osiągnąć, przeprowadzony został kompleksowy przegląd literatury obejmujący analizę przełomowych publikacji i wkładu wybitnych uczonych oraz ocenę perspektyw dotyczących wzrostu i rozwoju proponowanych przez różnych badaczy. Ponadto podjęto próbę identyfikacji głównych tematów, podobieństw i różnic zawartych w dostępnej literaturze. Niniejsze badania ukazują, że głównym naciskiem wzrostu jest ekspansja ilościowa. Rozwój natomiast dotyczy aspektów jakościowych. W badaniach zawarte są argumenty mówiące o tym, że do wzrostu i rozwoju, które są ze sobą nierozdzielnie związane, powinno dążyć się w sposób nieprzerwany po to, aby zapewnić organizacji osiągnięcie sukcesów w długiej perspektywie czasu. Na podstawie wyników badań zaprezentowano koncepcyjną strukturę łączącą wzrost i rozwój organizacji w system długoterminowego ekorozwoju. Przyjmując niniejszą strukturę jako podstawę do dalszych badań, uczeni i praktycy będą w stanie lepiej zrozumieć różną, choć wzajemnie połączoną naturę wzrostu i rozwoju w organizacjach. Ponadto badania te mogą wspomóc menadżerów w kwestiach dotyczących wzrostu i rozwoju, pozwalając na wykształcenie podejścia kierowniczego w stosunku do osiągania sukcesu organizacyjnego w szybko zmieniającym się środowisku globalnym.

Słowa kluczowe: wzrost i rozwój, myślenie systemowe, zarządzanie i organizacja



