



Research Article

A Systemic Approach to the Determinants of Employability

Sayouba Ouédraogo 

Training and Research Unit in Economics and Management, University Thomas Sankara (UFR-SEG/UTS), Ouagadougou, Burkina Faso

Email: sayoubauoed@yahoo.fr

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Abstract: This paper identifies the economic, sociological, psychological, and managerial approaches to analyzing the determinants of employability, and their limitations, and then proposes an interdisciplinary approach and systemic framework. Through a theoretical analysis, we find that these determinants interact with the internal and external environment of the individual who is integrated within society; has upgradable human and social capital; has a psychological make-up; and lives in a constantly changing socioeconomic context. The complexity of societies, companies, and a globalized economic system induces the use of interdisciplinarity by considering instability, openness, creativity, ambiguity, and paradox. The operationalization of the systems approach is to analyze the internal factors of each subsystem, the interactions between subsystems, and the relationships between subsystems and their environments. Future investigations should seek to identify the empirical determinants of employability through a systemic approach.

Keywords: graduate employment, determinants, employability, subsystem, systemic approach

JEL Code: J21, J23, J24, J45, J48, J53, J64

1. Introduction

The question of employability does not seem to be embedded in a unified network of univocal and stabilized explanatory connections (Forrier et al., 2009). Consequently, this lack of a single theoretical framework leads to a multitude of scattered and partial suggestions of the determinants of employability, depending on the area of research. Various ideas from the fields of economics, sociology, psychology, and management help to identify individual, economic, social, organizational, contextual, and environmental factors that determine employability (Othmane, 2011), which is defined as the ability of an individual to find and keep a decent job, to progress at work, and to adapt to change throughout their working life (International Labor Organization, 2004). However, methodologies and techniques from these four fields only confer a limited understanding of the subject because each approach overlooks the interactions of the others within the overall context, even though the concept of employability is multidimensional and multifactorial. A clear disparity between conceptualization and operational employability is evident (Peeters et al., 2020), and further research is needed to enhance our understanding of the determinants of employability (Knezović, 2023).

Engaging in the labor market over the course of an entire career involves adjusting to imbalances, educational and training policies, economic management of employment relationships, societal demands, individual job-

seeking strategies, professional tools, and various types of relationships. Furthermore, the internalization of digital technologies and occupational regulations requires functional flexibility and adaptability (Fugate et al., 2008). Thus, one's relationship with the labor market is linked to micro and/or macro-environmental contexts, attitudes, knowledge, and work skills, which contribute to an individual's employability (Tseng, 1972). Therefore, an integrative approach to the factors that determine employability helps to reinforce the concept of employability, which goes beyond the relationship between the job seeker and the labor market (Akkermans et al., 2024; Smith, 2010). Employability involves multiple elements or factors that interact with one another in a dynamic and ever-changing environment in which several different fields collaborate to serve a purpose. First, a job seeker is an individual with economic, sociological, psychological, behavioral, and managerial characteristics who is operating within a contextual environment composed of several dynamically interrelated systems that are sometimes complementary, and sometimes contradictory. Second, this individual is integrated into a social network characterized by economic, social, technical, and technological factors. Finally, the determinants of employability interact in a context where norms and rules influence the economy and society. Management can enhance or perfect these determinants, but it is first necessary to find a single strategy for determining employability that can consider all these factors. Given this complexity, what single approach can comprehensively address the determinants of employability?

The objective of this paper is to outline a framework for analyzing the factors that influence employability. We hypothesize that the determinants of employability are partially explained by the economic, sociological, psychological, and managerial approaches taken. Through an analysis of the literature, we conclude that a systemic approach, consisting of subsystems, is necessary to analyze the determinants of employability, which are interrelated in a dynamic and open environment.

The theoretical contribution of this paper is the interdisciplinary approach to identifying the determinants of employability. Before operationalizing the approach, a theoretical examination of each of its constituent employability approaches must be conducted. This analytical framework must be thorough and critical enough to address the concept's multidimensional nature. The main methodological contribution is the use of economics, sociology, psychology, and management approaches to construct a systemic approach to determining employability characteristics.

The remainder of the paper is structured as follows. Section 2 discusses the current approaches to employability and their limitations. Section 3 shows the importance of a systemic approach to the determinants of employability. Section 4 concludes and suggests directions for future research into the drivers of employability.

2. Current approaches to the determinants of employability and their limitations

Political, economic, demographic, and environmental conditions significantly impact society, and analyses logically incorporate societal changes. Economic recovery requires an adequate pool of employable labor. Several significations and the complexity of the concept are reflected by the variety of terms used to describe employability, which include socio-medical employability-employment interventions for disabled or disadvantaged people-, political employability-policy for workforce's employment-, employability in terms of expected performance-expected job performance-, initiative employability-initiative in work-, and interactive employability-interaction with other in work-(Gazier, 1999). For each employability, individual strengths or abilities are analyzed according to labor market requirements. Tests, grids, tools, etc. are designed to measure physical and mental performance, assessing the qualifications and skills required and even the personality and character traits desirable for a given job. Nevertheless, the concept of employability is influenced by time, geography, economic and social realities, and context (Clarke, 2018; Tomlinson, 2017; Gazier, 1990). Thus, qualifications, training and work experience, social capital, psychological skills, feelings of personal effectiveness, managerial techniques, and external factors interact in a context of profound and accelerated transformation of the labor market. However, the roles played by the individual job seeker and employee, companies, trade unions, and the state, are all important. Employability is more explicit according to the inter-dimensionality incorporating the labor market situation. The economic, social, psychological, and managerial approaches are all different, each with its own shortcomings in terms of analyzing the determinants of employability.

2.1 *The economic approach*

The concept of employability first appeared in the twentieth century in the United Kingdom, particularly in the economic field (Mansfield, 2001). The effects of the war on people's health affected their ability to work on the reconstruction of the countries. In 1950, employability was introduced into the labor market from a socio-medical perspective in that the requirements and capacity of disabled people were analyzed on a social, mental, and/or physical level so that the health status and level of relative poverty determined an individual's employability for work and the criterion of social burden was implicitly integrated into the determinants of employability. Governments in most European countries, certain impoverished adults who do not have any onerous family duties are employable in the public interest in return for financial aid, but other impoverished persons who are not employable receive assistance or aid in kind (Gazier, 1999). Economically disadvantaged individuals have little human capital, which is closely related to their low levels of investment. However, according to human capital theory, the remuneration in return for work by individuals is a function of their productivity, depending on the level of their education, knowledge, experience, and skill set (Becker, 1964; 1975; Mincer, 1958; 1974; Schultz, 1961). Engaging in a professional activity requires skills acquired while cultivating human capital. Skill capital accumulated through education, training, and work experience fosters flexibility, professional adaptability, and the development of the core skills necessary for employees to remain employable (Donald et al., 2020; Sullivan et al., 1998); the implicit assumption is that time spent in school enables the acquisition of the knowledge, skills, and attitudes needed in the labor market. While a diploma may act as a shield against unemployment because it facilitates access to employment and, consequently, to income, obtaining a diploma facilitates employment but insufficient conditions for employability. Having a diploma or degree is only a signal (Stiglitz, 1975; Arrow, 1973; Spence, 1973); the true value of a diploma depends on the dynamism of the economy and the individual. A situation of economic stagnation, depression, or a slowdown in economic activity is detrimental to employability; in other words, the economic situation shapes the demand for qualified labor or the employability of graduates. Thus, most young people, especially graduates, are subjected to unemployment or restricted to precarious or temporary jobs because of the economic situation (International Labour Organization, 2024). Another explanation for graduate unemployment is a devaluation of the diploma following an increase in the number of graduates and the subsequent reduction in job offers (Lemistre, 2003). Low economic activity and a large working-age population lead to persistent difficulties in hiring through the educational system via the diploma (Albrecht & van Ours, 2006). The mismatch between training and employment is one reason for graduate unemployment, in addition to high levels of youth unemployment and dissatisfaction with job offers. However, according to Zerbo (2014), this mismatch is not a source of unemployment for all young people. Because below a certain threshold, the mismatch between training and employment leads to a surplus of jobs being created for the benefit of low-skilled workers. Nevertheless, the impossibility of the adjustment of supply and demand in the labor market defies traditional approaches to the labor market. The time lag between training and market demand for employment, demographic growth, and technical and technological innovations, as well as economic dynamics, reinforce the mismatch. Moreover, economic approaches to full employment of the workforce are unrealistic.

Human capital theory (Mincer, 1974; Becker, 1964; Schultz, 1961) and filter, or signaling theory (Stiglitz, 1975; Spence, 1973) do not provide an adequate framework for analyzing the determinants of employability. Human capital theory does not consider the positive impact of innate abilities and social background on individual income. The ability to perform well-defined tasks, ease of communication, social comfort, rationality, self-discipline, and punctuality are the product of the individual's schooling, their own innate abilities, and their social background (Hausse, 1975). Through signaling theory, individuals transmit signals to reveal their private information and influence the behavior of other economic actors. Communication and information exchange in a situation of asymmetric information take place using signals, such as actions, messages, or behavior. This is done to reveal their quality, competence, intention, or other aspects relevant to the criteria required for the job. In this way, these signals help to reduce uncertainty and facilitate decision-making. For example, references, diplomas, or certifications signal a job seeker's level of education, skills, or professional experience. But there is always a difference between signals and actual competence. Furthermore, signal theory assumes the homogeneity of individuals differentiated by signals. However, they are in reality heterogeneous and the differentiation is natural and spontaneous. Also, information asymmetry is an inherent characteristic of all economic exchange. Finally, in the labor market government interventions, such as regulations and controls, lead to more distortions and inefficiencies than the asymmetric ones themselves. Other economic theories have been deployed for the

analysis of the determinants of employability, such as segmentation, efficiency wage, and institutional theories, which question the uniqueness and homogeneity of the labor market (Doeringer & Piore, 1971). For example, the market can be broken down into two segments; the primary market offers the stability and security of professional careers, while the secondary market is synonymous with low wages, professional instability, and financial insecurity. Employability will depend on the segment in which the job seeker is located and their human capital (education, work experience, etc.), while companies can operate in more than one segment, depending on how they manage their workforce, or their structural characteristics such as size or sector (Doeringer & Piore, 1971). Jobs are also differentiated according to the field of production and the type of training and can be segmented within firms (Gadrey, 1992). Finally, the position of individuals in the labor market is segmented because each individual is in an employment segment (Lindbeck & Snower, 1989). Segmentation theories refer to a multitude of employability parameters with determinants inherent to each.

Efficiency wage theory (Yellen, 1984; Shapiro & Stiglitz, 1984; Marshall, 1920) introduces imperfections or rigidities in the market mechanisms to explain involuntary unemployment within the framework of general equilibrium. Thus, there is a positive correlation between the wage and employee productivity. The effort of workers can be modulated according to their proven work interests; in other words, the skills required to produce goods and services must align with job seekers' interests. According to Walras (1954), a system of relative prices simultaneously ensures a stable equilibrium between supply and demand in all markets, provided in a competitive economy. So, the determinants of employability are job seekers' interests and marginal productivity. However, the marginal productivity in producing services is not determined by the unknown wage rate at equilibrium in the Walrasian model. This rate cannot be changed by entrepreneurs (Magnier, 1998). Moreover, the interests of job seekers and the requirements or conditions of the jobs offered generally do not coincide. Marginal productivity does not equal the wage rate.

The determinants of employability can also be analyzed through contract theory (Arrow, 1960); the theory of implicit contracts (Azariadis, 1975; Azariadis & Stiglitz, 1983); the insider-outsider theory (Lindbeck & Snower, 1989); the phenomenon of hysteresis (Blanchard & Summers, 1986); and the wage-setting, price-setting model (Cahuc & Zylberberg, 1994; Layard et al., 1991). According to Smith (2000), the skills and interests of the individual, the conditions of the market, the institutions, and the economic framework of supply and demand for goods, services, and labor, are the factors of employability.

For the subsection's summary, employability has become a priority for policy development because of global skill mismatches and large-scale unemployment in developed countries, South and East Asia, and Sub-Saharan Africa (Singh & Ehlers, 2020). A change in education policies should be the solution. The UN (2001) recommended reviewing, re-thinking, and re-orienting education, vocational training, and labor market policies to facilitate the school-to-work transition and provide school leavers with a good start to their working lives. Thus, the determinants of employability are linked to the economics of education and the various labor market theories (Ayala Calvo & Manzano García, 2021). Theories of the interplay between supply and demand are also used to assess labor market competition and equilibrium. Individual determinants of employability dominate the economic approach, creating a continuum ranging from employable to unemployable (Guilbert et al., 2016). Education and training that leads to a diploma or a certificate develop flexibility, professional adaptability, and the development of skills demanded by employers (Ellig, 1998). Human capital endowments and behaviors of the individual, the regulation and the segmentation of the labor market, the information, and especially the dynamism of economic activity all contribute to employability. Nevertheless, an economic approach to the determinants of employability incorporates individual, social, health, and mental characteristics that are identified through a multidimensional approach. Economic theory is the inability to predict career success and re-enforces rather than helping to address pre-existing inequalities (Hooley, 2020; Hooley et al., 2019). Economic arguments tend to disregard social obstacles that affect access to resources and their benefits for certain categories of graduates (Mok & Wu, 2016); a purely economic approach obscures the positive impact of innate abilities, social origins, psychology, social relations, as well as other non-tradable assets.

2.2 The sociological approach

Mass employment results in individual and community health and well-being (Marmot et al., 2020). A social qualification which is all knowledge and qualifications such as professional experience and personal and moral qualities that make a suitable job; and social capital are of primary importance in the analysis of employability from

a sociological perspective (Hsu et al., 2022). In addition to economic and technical elements, professional mobility, biography, the construction of social and professional identity, the network of social relations, the articulation between economic logic and social structures according to the theory of weak links (Granovette, 1973), and the ability to adapt to the environment, all contribute enormously to an individual's employability (Ergün & Şeşen, 2021; Fontiat & Roques, 2000; Coleman, 1990). Belonging to a community or society forges identity and representation and creates a network of relationships conducive to employability, and participation in formal organizations, professional associations, and access to technical information on the labor market are key (Saxenian, 1996). Low-skilled individuals make use of their networks (Ponzo & Scoppa, 2008). The more social obligation claims an individual has, the more of their social capital they can transform into unpaid debts if relational trust is not present (Kwon, 2019). Nevertheless, social, or relational capital does not fully explain the high rate of unemployment.

According to Guilbert et al. (2016) and Othmane (2011), learning about behavior beyond the professional realm can help in the selection of candidates. Interviews with job seekers, following written tests, often cover topics that go far beyond the work sphere to incorporate autonomy, initiative, and responsibilities acquired at school, in the family, and in society (Bourdieu & Passeron, 1964). All of these contribute to their employability. Social behavior is a measurable quantity that will be integrated into the company's cost function for the selection of job seekers (Coleman, 1990). Employability includes consideration of skills and professional qualities (objective employability) as well as social qualities and the ability to adapt to the environment. However, while socialization and social integration are a matter of personal history and are likely to differentiate individuals, the lack of hard data imposes limits on the sociological approach. Each individual invests in social relations according to a strategy based on capacities (Granovetter, 1973). The diversity of labor markets and populations, as well as the heterogeneity of actors, imply a need for different approaches and behaviors in different countries. Similarly, social constructs like gender, language, race, ethnicity, social class, or social hierarchy imply discrimination and the exclusion of some people due to a disability or marginalization from the labor market, which is then forced to the margins of society. Yet, employment is the central vector of social integration at the population level (Abric, 1994).

In the sociological approach, employability is a matter for the individual and society. Sociological analysis highlights the importance of social qualification, as well as the role of social capital, in the construction of employability. These networks can provide useful information and recommendations for job searches and internal or external promotions. The structural approach to social capital analyzes it from a microeconomic perspective (Coleman, 1990), and the theory of weak ties looks at social networks to understand how the labor market works (Granovetter, 1973; 1974; 1983; 1988). According to the weak tie theory, an individual's strong ties are typically composed of people who are similar to them in terms of demographics, values, and interests. These individuals tend to share a lot of the same information and resources, and as a result, they are not likely to be sources of novel or diverse information.

In summary, the determinants of employability are identified through a structural approach to social capital, weak ties, and dynamic capabilities. Employment and security are related to health and society (Gevaert et al., 2021). As employment is a social determinant of health for both individuals and communities, the theoretical determinants of employability are both individual and societal. Educational attainment is a prerequisite for employability. However, the sociological approach can increase socioeconomic inequalities to the detriment of fostering inclusive and cohesive communities. Society is generally concerned with the well-being of its members as a whole and pursues equitable development objectives. The possession of human and social capital without psychological capital or managerial capacities partially explains the difficulties of adapting the labor supply to the demand for employment. The individual's state of mind, their motivation, and their psychology are also important factors in terms of their employability. The sociological approach does not explain the differences in the integration or reintegration of social individuals into the labor market, so the psychological approach provides an alternative way of analyzing the determinants of employability.

2.3 The psychological approach

Unemployment is a psychosocial stressor that has been linked to an increase in physical and mental health problems, low subjective well-being, and quality of life (Peláez-Fernández et al., 2022). Employability is related to individual psychology in terms of accessing skills, abilities, and competencies that enable graduates to find jobs, or the proactive attitudes required to stay in employment.

The psychological approach places the individual at the center of their employability in that their motivation,

willingness, goal pursuit, self-confidence, and skills enable personal and professional positioning in the labor market (Dany, 1997). The employability of job seekers is intrinsically linked to individual psychology. Needs, motives, and values drive action based on personal factors; indeed, unfulfilled personal desires and goals reinforce the personality, individual disposition, and values for work. Theories of needs, intrinsic motivation, and organizational justice determine individual psychological behavior (Kanfer, 1990; Akerlof, 1982). Need theories describe motivated behavior as individual efforts to meet needs. Four major theories in the need-based category are Maslow's hierarchy of needs, ERG theory, Herzberg's dual factor theory, and McClelland's acquired needs theory. Intrinsic motivation is the motivation to engage in a behavior because of the inherent satisfaction of the activity. However, organizational justice is when the employees perceive workplace procedures, interactions, and outcomes to be fair in nature. The perception can influence attitudes and behavior for good or ill, in turn, have a positive or negative impact on employee performance. Thus, motivation is inseparable from the competencies, the personal will of the individual, and the pursuit of the goals that allow for a personal and professional positioning in the labor market (Thierry, 1996). A psychological disposition of self-confidence and motivation triggers the desire to work or to look for a job, and the development of an individual's employability is fostered by perseverance, autonomy, willingness, energy, and effort. Expectations of rewards and job satisfaction interact with the individual personality to generate the willingness to act. Both determine the likelihood of getting a particular job over another, while certain levels of psychological pain and fatalism tend to reduce employability (Barret et al., 2001). Different psychological skills such as cognitive restructuring, self-regulation, mental rehearsal, self-talk, and goal setting can account for differences in adaptation and flexibility. However, heredity, history, the amount and type of education received, the micro and macro environment, and contextual and circumstantial factors all interact to create psychological dispositions. Therefore, subjectivity would be the foremost factor in employability, which ought to be objective for factors related to the labor market for the purpose of economic output. Certainly, personality traits orient the labor market.

In summary, the psychological approach analyzes the determinants of employability using psychological theories such as needs, intrinsic motivation, etc. The determinants of employability focus on internal personal factors such as capacities, competencies, and skills, and structural or external factors such as the employment market and the importance of qualifications when trying to find a job (Blokker et al., 2019; Vargas et al., 2018). A changing and dynamic labor market induces the management of objective and perceptible competencies for the requested job, and a managerial approach can also be used to assess the determinants of employability.

2.4 The managerial approach

According to De Vos et al. (2021), the rapidly increasing speed of technological developments, new business models, expanding globalization, and increased demand for productivity, creativity, and flexibility have increased the interest in the determinants of employability from management, employers, and employees. Competency management indicates the possibility of developing employability through a managerial process. Learning, training, employee mobility, or borderless careers adapt competencies to the firm and to changes in the environment (Cadin et al., 2000). The interests of the employees should coincide with those of the company so that their aspirations, needs, and abilities are linked to the requirements of the employer (Pigeyre, 1994). The convergence of the interests of a company and its employees in creating a sustainable competitive advantage requires a managerial process within which the employee must adapt their skills to the production requirements of the company, and the company must respond to the changing expectations of the workers caused by their environment. In other words, skills are part of an exchange of value between the employer and the employee. The management of skills and changes in the environment are the joint responsibility of the employee and the employer. Mobility, freedom, and personal development managed in a participatory process, favor employability (Le Bortef, 1997). The development of versatility and support in the acquisition of skills that are recognized and valued in the labor market is done through employee training, and the skills, performance objectives, and incentive systems are tools of competitiveness of production units. It obliges employees to engage in being attractive. However, the managerial approach rarely doesn't integrate outside of the company. The focus on the demand side of the labor market restricts any strategy to fight unemployment because several factors interact such as law and social norms. The labor market is contextual, operating within an open and dynamic system (Béraud, 2006).

In summary, the management approach is based on the managerial theories. Governments and employers need to boost the competitiveness, flexibility, and adaptability of employees to meet new technological developments and the

requirements of the working environment. Employees' skills need to meet the current requirements of the labor market and of future employers, but aligning learning goals with the needs of the labor market is a difficult task for educational institutions, especially when these needs are constantly changing (Belchior-Rocha et al., 2022). Such institutions must adapt to strong socioeconomic challenges by integrating recent graduates into the labor market. Consequently, the managerial approach to employability is limited in terms of analyzing the determinants of employability (Stephany, 1998).

Economic, sociological, psychological, and managerial approaches identify the determinants of employability. Thus, employability is multidimensional and wide and the interlinked nature of different approaches reflects this (Jackson & Bridgstock, 2021). Also, the different actors interconnected and interdependent operate within an ecosystem (Baruch, 2013). However, a lack of interdisciplinary research means different approaches streams operate independently, albeit often related to employability (Römgens et al., 2020).

3. Multidisciplinary and systemic approach to employability determinants

An analysis of the determinants of employability concomitantly integrates the psychological, social, economic, and managerial characteristics of the individual through the interplay of these in the environment. There are relationships between the determinants, which include qualifications, training, skills, professional experience, social capital, psychological skills, a sense of personal effectiveness, institutional rules, and the environment (macro and micro).

3.1 *The need for a systemic approach*

The environment in which a person lives includes subsystems made up of many factors and variables that interact to determine their employability. These variables are related to the psychological, social, historical, economic, moral, ethical, professional, and managerial dimensions of an individual. Any analysis of the determinants of employability must therefore resort to a multi- and interdisciplinarity integrated into a global system with dynamic actions and feedback loops, and this operating framework is so complex that it requires a systemic approach. The representations of reality consider instability, openness, fluctuation, chaos, disorder, vagueness, creativity, contradiction, ambiguity, and paradox. Internal and external relations, structures, laws, emergent properties or problems of observation, representation, modeling, and the simulation of a complex totality are all apprehended (Donnadieu et al., 2003).

In a systems approach, the subsystems comprise interconnected and interlocking factors that form a relatively coherent and homogeneous whole, but arriving at a complete understanding of the complex reality of the labor market is difficult because understanding the dynamic behavior of individuals within this market defies analytical rationalism because of its complexity. The identification of the determinants of employability in the system integrates the dynamics of relationships. Thus, the relation shows that interaction beyond the simple cause-and-effect relationship to capture system strategies. In addition, information integration, purpose, feedback, circular causality, regulation, structure and levels of the organization, variety, openness or closure, synchrony, and diachrony, are all elements in determining employability, all of which are embedded in a systems approach (Arnold & Wade, 2015).

3.2 *Determinants of employability by multidisciplinary and systemic approach*

The analysis of determinants requires a comprehensive, global, integrated, and dynamic approach based on representations of reality (Le Moigne, 1977; Bertalanffy, 1968) that recognize the dynamic interactions between the elements making up a complex whole. The method mobilizes and organizes knowledge to include technological knowledge, information, communication tools, level of education and qualifications, professional experience and skills, the process of their development, previous types of employment, duration of unemployment, acquired knowledge, and transferable skills, security, confidence, representation of the job and the self, mentality, working climate and conditions, leadership and managerial style, relations with colleagues, acculturation orientation and the integration of theoretical models and methodological precepts from various disciplines. A systemic approach grasps the determinants of employability through observation of the system, analysis of the interactions of the variables and the chains of regulation, dynamic modeling and simulation, and confrontation with reality through experimentation. The global and

dynamic vision of the system constituting an organization with an explicit or implicit purpose is essential in the systemic approach. Indeed, the labor market constitutes a complex globality with subsystems (economic, social, psychological, managerial, etc.) whose factors are in dynamic interaction through relationship flows that do not hide the difficulties of limiting the boundaries of the subsystems, internal and external relations, structures, laws, emergent properties, or the problems of the mode of observation, representation, modeling, or the simulation of a complex whole. The tools used are the triangulation of the functional, structural, and historical aspects, systemic partition, and analogy. According to Ryan (2008), a complex system can be observed from three different but complementary angles. Each is linked to a particular point of view, including the structural aspect of the system, its functional character, and its entire historical perspective. The structural aspect refers to the system composition and the functional analysis. Historical study focuses on the evolutionary nature of the system about its past. The systemic breakdown identifies the sub-systems, their boundaries, their purposes, and the connections for their interdependence.

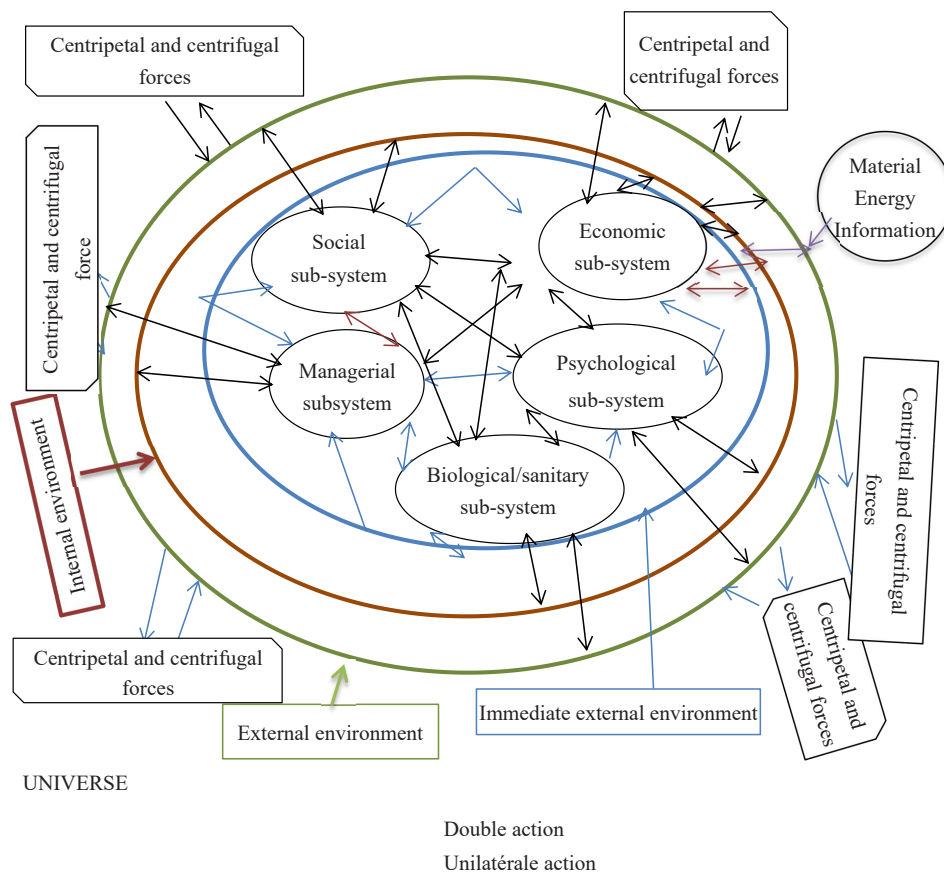


Figure 1. The systemic approach to the determinants of employability

Source: Author

The multitude of factors made up of variables with internal and external relations leads to the primacy of the dynamic vision of the subsystems with a first differentiation of these variables according to their relationship to time. The state variables or level variables, also called stocks, are quantities that accumulate the results of actions taken in the past, and their evolution is significant for the subsystems. Time is used to distinguish variables. A stock variable is frozen at a value when time is also frozen. A flow variable acts on the stock variable. The flow variables determine the variations in the levels of the system and characterize the actions decided and accumulated in the corresponding level. The actions and feedback between these variables and the environment are carried out through the flow variables.

The analysis of the determinants of employability, using the systemic approach, is carried out within three interaction spaces; the internal environment or the interior of the subsystem, whose relationships are internal; the immediate external environment, which relates to the usual relationships maintained between the subsystems, as well as the environment through the boundaries; and finally, the encompassing environment, which is the environment in its broadest sense. Figure 1 above represents the levels of analysis of the determinants of employability in a systemic approach.

The systemic approach to the determinants of employability requires a three-stage knowledge-building process.

1. The first step is to analyze the relationships between the factors of each subsystem to understand the determining factors of employability and to identify the most important elements of the interactions between them. The flow and state variables, the feedback loops, and their polarities and possible delays are also identified while building a history of these subsystems helps to understand their evolutionary dynamics.

2. The second is concerned with understanding the interactions between the identified subsystems. The flow and state variables, the relations between variables, the external parameters, and the delays of the subsystems sometimes appear, with counterintuitive results arising from the complexity of a reality that is difficult to model. This step is designed to highlight the structure and functioning of the system.

3. The third analysis looks at the internal environment first, then the immediate external environment, and finally the external environment, thereby enabling the drawing of possible futures, envisaging the improbable, and, above all, imagining the determinants of employability considering the dynamics of the environment.

The systemic approach uses graphic, mathematical, and econometric representation tools to attempt to grasp reality in all its complexity. It is a holistic approach in which primacy is given to the interactions between subsystems, rather than to the analysis of isolated subsystems. Indeed, the complexity of societies, companies, globalization, and digital technologies justifies a systemic approach based on representations of reality that incorporate instability, openness, fluctuation, chaos, disorder, vagueness, creativity, contradiction, ambiguity, and paradox. A systemic approach requires the use of interdisciplinarity and multidisciplinary in the analysis of the determinants of employability.

The multidisciplinary approach is common in the context of flexible working conditions, the work that is outsourced and casualized, and the transformation of employment through individualization and contextualization where individuals are responsible for their own unemployment. Employability is systemic and mixed, integrating individual, organizational, and labor market levels and mobilizing operational indicators and representations. Any corporate social policy that is based on individual characteristics and includes the current state of the local labor market requires creativity and responsibility as well as the ability to build and mobilize social networks. An employable person's ability to obtain initial employment is conditioned by various factors such as the education system, the health system, the social system, the psychological system- which both theoretical psychology and applied psychology study human behavior and experience as complex systems-, the political system, and job opportunities. Other factors include the ability to keep one's job, to manage transitions between jobs and roles within the same organization, and to find a new job if necessary.

In the labor market, an individual is either an outsider (with no job), an entrant (applying and interviewing for work), or an insider (with stable employment). The ethic of individual self-fulfillment and achievement is the most powerful current in modern society. The choosing, deciding, and shaping of a human being who aspires to be the author of their own life, the creator of an individual identity, is the central character of our times (Glenn et al., 2024). Internal contexts refer to individuals' biological, physiological, psychological, and economic resources. The former two subsystems are intricately intertwined with one another, while the interplays between the biological and psychological subsystems are exemplified by, for instance, the robust longitudinal relationship between attitudes toward aging and various indicators of physical health and longevity.

Individuals are also embedded within interrelated systems of external contexts that likewise influence their productivity (in the more expansive sense) and development. The work context, learning experiences at the workplace (and in other life domains), corporate human resource management, work organization, legal and educational frameworks, and societal perspectives on aging, work, and lifelong learning all have the potential to improve employability.

The internal and external environments are intricately interconnected and they mutually influence one another, either positively or negatively, while also balancing each other out. An interdisciplinary approach is required to understand the complex interactions between various developmental influences at different contextual levels (individual,

social, psychological, organizational, societal/institutional). This approach involves combining knowledge and methodologies from different disciplines to study the impact of these contextual influences on development.

4. Conclusions and future research

The concepts of dichotomous employability, technical employability, economic employability, constitutional employability, socio-medical employability, performance employability, political employability, flow employability, initiative employability, and interactive employability reflect the diversity, dynamics, and multiple dimensions of employability. Furthermore, the roles of the individual job seeker and employee, the trade unions, society, and the state are linked to psychological, social, and economic characteristics as well as to the constraints and specificities of the environment. In the context of the profound and accelerated transformations of the labor market (flexicurity, permanent adaptation, etc.), the impossibility of adjusting supply and demand in the labor market translates into the essential challenge of approaching the determinants of the employability of job seekers. These determinants are integrated and influenced by internal and external contexts that form a complex system of interrelated circumstances.

The study contributes to the literature on determinants of employability by showing that economic, social, psychological, and cultural capitals emerged as crucially important and necessary resources that individuals had to articulate and utilize for employability. However, each of these approaches is not able to specify these determinants. Also, this study outlines the multidisciplinary to identifying the determinants of employability.

Despite these contributions, this study had the first main limitation which was a theoretical approach. Second, the determinants weren't linked to each employability. While the nature of employability would induce the nature of the determinants.

4.1 Directions for future research

A systemic approach to these determinants should be global, transversal, and multidisciplinary to grasp the complexity of the labor market and to break free of the rigid. This approach challenges the ideological nature, and questions the legitimacy, of relying on sociological, psychological, managerial, or economic techniques to understand the factors that determine employability. To execute this method, future investigations will rely on empirical data to further develop this theoretical framework. Several sources of data from different disciplines, both national and international, can be used, considering the micro, meso, and macro levels and using quantitative and qualitative analyses in a systemic approach. To arrive at a comprehensive understanding of the factors that influence employability, it is important to move beyond the strict division of analytical methodologies and instead embrace interdisciplinary and complementary systemic approaches.

Conflict of interest

The author declares no competing financial interest.

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