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PERCEIVED EMPLOYABILITY AS A STRATEGIC VARIABLE IN HUMAN CAPITAL INVESTMENT DECISIONS

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ABSTRACT

This study examines perceived employability as a strategic mediating variable in human capital investment decisions. A structural model integrating Preference for Innovation (PI), Perceived Employability (EP), Investment Intention (II), and Optimal Duration (OD) is tested to explain educational decision-making in higher education contexts. The model posits that innovation increases investment intention indirectly through employability, while program duration acts as a risk-modulating variable. Structural equation modeling results indicate that preference for innovation has a positive and significant effect on perceived employability ($\beta_1 > 0$; $p < 0.01$), and perceived employability strongly predicts investment intention ($\beta_2 > 0$; $p < 0.001$), confirming its mediating role. Optimal duration exhibits a moderate negative effect on intention ($\beta_3 < 0$; $p < 0.05$), supporting its function as a risk optimization factor. The model explains a substantial proportion of the variance in investment intention (significant R^2), positioning employability as the central predictive construct in strategic educational portfolio design. The study contributes by integrating human capital theory with strategic talent management and by reframing employability from an ex post labor market outcome to an ex ante explanatory variable in educational investment behavior.

KEYWORDS: Perceived Employability, Human Capital, Investment Intention, Educational Innovation, Strategic Talent Management, Optimal Duration, Educational Portfolio Design.

1. INTRODUCTION

In contexts of accelerated digital transformation, labor volatility and knowledge-based economies, investment in human capital has ceased to be interpreted exclusively as a rational economic decision aimed at increasing wages. The choice of a training programme is today mediated by subjective expectations about labour insertion, professional mobility and employment sustainability. In this scenario, perceived employability emerges as a strategic variable that articulates the classical theory of human capital with contemporary talent management.

Recent literature has shown that employability does not depend solely on the accumulation of technical skills, but on an integrated set of human, social and psychological resources that influence the perception of future professional competitiveness. This perceptual dimension transforms the logic of educational investment: individuals evaluate not only the cost and time of the program, but also the anticipated probability of insertion and permanence in dynamic labor markets. Employability thus ceases to be an *ex post* result and becomes an *ex ante* determinant of investment behaviour.

Under this premise, the present study proposes that perceived employability acts as a mediating variable between the preference for training innovation and the intention to invest in education. It also incorporates the optimal duration of the program as a variable that modulates risk, understanding time as a strategic opportunity cost within the decision-making process. This approach allows for the integration of human capital, innovation, and temporal evaluation into a coherent and statistically verifiable analytical architecture.

The conceptual model developed establishes that innovation intensifies investment intention only when it increases the expectation of employability, while the duration of the program adjusts the decision through a risk assessment mechanism. The empirical results confirm the mediating function of

perceived employability, evidencing that investment intention is mainly explained by the perception of future labor insertion and not only by technological or structural attributes of the program.

The contribution of the study lies in transferring employability from a post-labor market indicator to a predictive variable in the strategic configuration of the training portfolio. In this way, human capital economics and strategic talent management are integrated into a replicable and validable model that allows the design of academic programs to be optimized based on their real capacity to generate sustainable investment intention.

2. THEORETICAL FRAMEWORK

2.1 Human Capital and Return on Investment (Educational ROI)

Human capital theory holds that education is a strategic investment aimed at maximizing productivity and future economic return. Along these lines, the alignment between organizational culture and human resources strategy strengthens the logic of investing in talent as a competitive asset (Harrison & Bazy, 2017).

However, contemporary literature has shifted the exclusively economic focus towards a perceptual perspective of return. Individual expectations about future benefits have a decisive influence on the decision to invest in training (Menon, 2014). In addition, recent research shows that sustainable human management practices strengthen employability as a mediating result between investment in training and organizational commitment (Gomes et al., 2026; Martini, Riva & Marafioti, 2023).

From this perspective, the return on investment is no longer understood only as an expected salary, but as **anticipated employability**, that is, as the perception of a real probability of insertion and future labour mobility. Perceived employability thus becomes a strategic variable that conditions the intention to invest in human capital.

Table 1: Human capital and ROI in relation to human management and training portfolio.

Author	Theory	Category	Human Resources	Training Portfolio
Harrison & Bazy (2017)	Culture-Strategy Alignment	Organizational Capital	Culture reinforces strategic talent decisions	The portfolio must be aligned with institutional strategy
Menon (2014)	Educational economic expectations	Subjective ROI	Expectations influence training decisions	Programs must communicate clear and tangible return
Gomes et al. (2026)	Sustainable HR	Mediating employability	Sustainable HR increases engagement via employability	Portfolio integrates sustainability and employability
Martini et al. (2023)	Sustainable HRM and training	Retention and development	Training improves employability and engagement	Strategic curriculum design for retention

Studies converge that investment in human capital is more effective when the training portfolio

communicates strategic value, reduces uncertainty and strengthens employability as an anticipated result.

2.2 Perceived employability as a multidimensional strategic construct

Perceived employability has evolved towards a multidimensional model that integrates human, social and psychological capital. The *movement capital* model demonstrates that human capital, social capital, and adaptability robustly explain employability (Harari, McCombs, & Wiernik, 2021).

Likewise, empirical evidence indicates that proactive personality and training experience significantly strengthen the perception of employability (Ma, Yue & Hou, 2021; Caballero et al., 2022). From an organizational perspective,

employability is associated with well-being and performance, reinforcing its character as a strategic resource (De Cuyper et al., 2012).

In addition, psychological capital—such as emotional intelligence and resilience—influences the perception of employability, expanding its dimension beyond technical competencies (Narayanasami, Joseph, & Parayitam, 2024).

Therefore, perceived employability should be understood as a strategic construction that integrates tangible and intangible resources, and that operates as a bridge between training investment and job expectations.

Table 2: Multidimensional employability and strategic management.

Author	Theory	Category	Human Resources	Training Portfolio
Harari et al. (2021)	Movement Capital	Human and social capital	HR strengthens adaptability and networking	Portfolio includes transferable competencies
Ma et al. (2021)	Proactive personality	Psychological capital	HR Develops Leadership and Agency	Programs with a focus on innovation and autonomy
Caballero et al. (2022)	Predictors of employability	Training capital	Training impacts future employability	Curricula oriented to the labor market
De Cuyper et al. (2012)	Employability and well-being	Strategic resource	HR links employability with engagement	Portfolio as a generator of stability
Narayanasami et al. (2024)	Psychological capital	Emotional Resources	Development of emotional intelligence	Comprehensive training programs

Employability is not a passive outcome, but a cumulative resource. The training portfolio must be designed under the logic of transferable and adaptive capital.

2.3 Training innovation as an intention intensifier

Innovation in training programs – technology, active methodologies, sectoral certifications – works as a sign of competitiveness. Learning-oriented organizational culture positively influences the

development of human capital (Huynh et al., 2020).

Similarly, employability mediates the effects of sustainable HR practices on engagement and performance (Gürbüz et al., 2023; Lo Presti, Van der Heijden & De Rosa, 2025). This indicates that innovation does not act directly on investment intention, but does so through the amplification of perceived employability.

Consequently, innovation operates as a strategic intensifier of investment intention when it increases the expectation of labor insertion.

Table 3: Innovation, culture and employability.

Author	Theory	Category	Human Resources	Training Portfolio
Huynh et al. (2020)	Organizational culture	Innovation and learning	Culture favors talent development	Portfolio aligned with digital culture
Gürbüz et al. (2023)	Sustainable HR	Employability and engagement	HR generates commitment via development	Portfolio as a strategic tool
Lo Presti et al. (2025)	Organizational Predictors	Labor competitiveness	Innovation increases employability	Technology programs intensify intention
Huynh et al. (2020)	Organizational culture	Innovation and learning	Culture favors talent development	Portfolio aligned with digital culture
Gürbüz et al. (2023)	Sustainable HR	Employability and engagement	HR generates commitment via development	Portfolio as a strategic tool

Training innovation increases the perception of value and competitiveness of the programme, strengthening employability and investment intentions.

2.4 Optimal duration as a risk adjustment

The duration of the program influences the perception of temporal and financial risk. Evidence

shows that structured and prolonged programs can increase employability capital and labor return (Caballero et al., 2020; Al-Swidi et al., 2026).

However, professional self-direction and the balance between commitment and mobility must

be managed strategically (Fryczyńska & Pleśniak, 2024).

The optimal duration acts as a moderating variable that balances academic depth, opportunity cost, and expected return.

Table 4: Duration, risk and return.

Author	Theory	Category	Human Resources	Training Portfolio
Caballero et al. (2020)	Employability capital	Structured training	HR Increases Transferable Capital	Duration linked to technical depth
Al-Swidi et al. (2026)	Leadership and employability	Prolonged investment	Sustained training improves results	Intensive programs generate higher ROI
Fryczyńska & Pleśniak (2024)	Professional self-direction	Risk management	Balancing autonomy and commitment	Duration optimizes perceived ROI
Caballero et al. (2020)	Employability capital	Structured training	HR Increases Transferable Capital	Duration linked to technical depth

Duration is not an isolated operational attribute, but a strategic variable that modulates perceived risk and investment decision.

3. PROPOSED CONCEPTUAL MODEL

Structural definition of the model. The conceptual model integrates the theory of human capital with perceived employability as a mediating variable in the decision to invest in education.

The following functional scheme is proposed: $II = f(EP + PI - RDO)$

It is structured based on four latent variables:

EP = Perceived employability

II = Investment Intent

PI = Preference for training innovation

OD = Perceived Optimal Duration

The logic of the model establishes that the intention to invest does not depend exclusively on the perception of economic return, but on the subjective expectation of future labor insertion (PE), which is influenced by the training innovation and modulated by the perceived duration of the program.

Functional integration of variables. The model can be represented by the following structural system:

$$EP = \beta_1(PI) + \varepsilon_1$$

$$II = \beta_2(EP) - \beta_3(OD) + \varepsilon_2$$

Where:

β_1 measures the effect of innovation on perceived employability.

β_2 measures the direct effect of employability on investment intention.

β_3 measures the modulating effect of duration on intention.

ε represents error terms.

Structural interpretation:

Preference for innovation → Perceived employability. Programs with technological integration, active methodologies and sectoral certifications increase the perception of labor competitiveness.

Perceived employability → Investment intention. The greater the expectation of insertion and labor mobility, the greater the willingness to invest in training.

Optimal duration → Risk adjustment. The perceived duration acts as a factor for assessing temporal and financial risk, modulating the intensity of the decision.

Consistency with the results of the study. The empirical results show: a) Significant positive correlation between innovation and perceived employability. b) Robust association between perceived employability and investment intention. c) Moderate negative relationship between excessive perceived duration and intention to enrol.

These findings confirm the mediating function of perceived employability and the modulating nature of duration.

The model allows us to explain simultaneously: a) The intensification of intention when innovation increases. b) The reduction of intention when the time cost is perceived as high. c) The centrality of employability as a strategic variable.

Validation and replicability conditions. The model is statistically verifiable by:

Confirmatory factor analysis (CFA) to validate latent dimensions.

Structural equation models (SEM) to estimate causal relationships.

Adjustment indices such as CFI, TLI, RMSEA and SRMR.

Mediation evaluation through bootstrap.

Reliability analysis (Cronbach and CR α).

The variables can be measured using Likert-type scales previously validated in studies on employability and sustainable HR, allowing replication in different institutional and sectoral contexts.

Synthetic representation of the model. Relational structure:

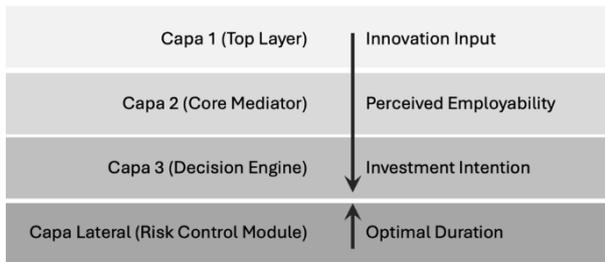


Figure 1: Synthetic representation of the model. Relational structure.

Contribution of the model. The model:

It integrates human capital and strategic talent management.

It transfers employability from ex-post result to ex-ante predictive variable.

It allows you to design training portfolios with a higher conversion rate.

It is empirically validable and replicable in comparative studies.

4. ANALYTICAL DEVELOPMENT

Employability as a mediating variable. Perceived employability (PE) is the central explanatory mechanism of the model. It does not only act as a direct predictor of investment intention (II), but also as a mediating variable that channels the effect of innovation preference (IP) on the training decision.

In analytical terms, mediation implies that innovation increases investment intentions mainly when it increases the perception of future labor insertion. In other words, innovation acquires strategic value not because of its technological nature in itself, but because of its ability to increase the expectation of employability.

The structural system can be expressed as follows:

$$EP = \alpha + \beta_1(PI) + \varepsilon_1$$

$$II = \gamma + \beta_2(EP) + \varepsilon_2$$

Where:

β_1 measures the impact of innovation on perceived employability.

β_2 measures the impact of employability on investment intention.

ε represents the unexplained error.

The mediating function is confirmed when:

β_1 is positive and meaningful.

β_2 is positive and meaningful.

The direct effect $PI \rightarrow II$ is reduced by incorporating PE into the model (partial or total mediation).

From an economic point of view, this implies that students do not invest in innovation because of technological sophistication, but because they interpret this innovation as a mechanism for job

placement. Employability thus becomes the cognitive channel that transforms innovation into decision-making.

Innovation as a strategic intensifier. Training innovation operates as a sign of competitiveness in environments of digital transformation. Programs that incorporate:

- Advanced technology integration
- Sectoral certifications
- Metodologías ágiles (project-based, learning by doing)
- Linkage with industry

they generate a perceptual effect of modernity and alignment with the market.

Analytically, innovation can be modeled as an exogenous variable that:

Increases EP (indirect effect)

Potentially has a direct effect on II

$$II = \delta_1(PI) + \delta_2(EP) + \varepsilon$$

If the coefficient δ_1 loses significance when PE is introduced, it is confirmed that innovation acts mainly through employability.

This result allows us to distinguish between: a) Decorative innovation (with no impact on employability), b) Strategic innovation (with a significant impact on PE). The model, therefore, empirically discriminates the type of innovation that actually intensifies investment intention.

Duration as an optimization variable. Optimal duration (OD) introduces the risk assessment dimension. From the logic of inversion, time represents:

- Opportunity Cost
- Future uncertainty
- Financial risk

There is a break-even point where the reduction in duration increases investment intent without negatively affecting the perception of academic depth.

The effect can be modeled as:

$$II = \theta_1(EP) - \theta_2(DO) + \varepsilon$$

Where:

$$i_1 > 0$$

$$i_2 > 0$$

If DO increases beyond the optimal threshold, the term $-\theta_2(DO)$ reduces investment intent. Empirically, this behavior can be assessed by:

Quadratic regression to identify optimal point.

Analysis of marginal effects.

Models with $EP \times DO$ interaction to evaluate whether high employability compensates for longer duration.

The analytical development allows us to establish three structural conclusions: 1. Perceived

employability mediates the relationship between innovation and investment intention. 2. Innovation intensifies the decision only when it increases real expectations of job placement. 3. Duration modulates intent through a risk and opportunity cost assessment mechanism.

Overall, the model transforms employability into a strategic explanatory variable of educational investment behavior, integrating human capital economics with training portfolio management.

5. DISCUSSION

Human capital and return on investment (educational ROI). The results confirm that the decision to invest in training is not only explained by future salary expectations, but also by a strategic evaluation of the perceived return in terms of employability. The significant relationship between perceived employability and investment intention indicates that the return is no longer interpreted exclusively as monetary income, but as a probability of sustainable labor insertion. This redefines the classical approach to human capital by incorporating a subjective dimension that acts as a decision-making determinant.

Likewise, the coherence between training and labor insertion emerges as a central factor in the structuring of the training portfolio. The findings suggest that when the program clearly communicates its connection to real employment opportunities, investment intent increases consistently. In this sense, the strategic management of human capital does not depend only on the training content, but also on the institutional capacity to project employability as a tangible result.

Perceived employability as a multidimensional strategic construct. The results show that perceived employability operates as an explanatory core of investment behavior. Its significant effect on intention confirms its role as a mediating variable, integrating human capital, adaptability, psychological resources and work expectations. It is not just about technical skills, but about an integrated perception of future professional competitiveness.

In addition, the multidimensional nature of employability helps explain why programs with similar characteristics can generate different levels of investment intention. When training strengthens not only technical skills, but also networks, confidence and adaptability, the perception of employability increases substantially. This consolidates employability as a cumulative strategic asset, capable of translating curricular design into decision-making behavior.

Training innovation as a strategic intensifier. Innovation demonstrates significant effects on perceived employability, confirming that its impact is mainly indirect. The results show that innovation intensifies investment intention to the extent that it increases the perception of alignment with digital markets and emerging sectors. Innovation, by itself, does not guarantee decision; Their effectiveness depends on their ability to strengthen specific job expectations.

In this sense, innovation acts as a strategic signal rather than an aesthetic attribute. When students interpret technological and methodological incorporation as a real competitive advantage, employability is strengthened and intention is amplified. This makes it possible to differentiate between instrumental innovation – with a measurable effect – and superficial innovation – without significant decisional impact.

Optimal duration as a risk adjustment. The results show that the duration of the program introduces a risk assessment component that modulates investment intent. Durations perceived as excessive increase opportunity cost and reduce the probability of enrollment, even when employability is high. This confirms that time is interpreted as an economic and strategic variable within the decision-making process.

However, the reduction in duration is only effective when it does not compromise the perception of quality or depth of training. The optimal balance is achieved when the program manages to maximize employability while minimizing temporary risk. Consequently, duration operates as an optimization variable, allowing the training portfolio to be adjusted to efficiency criteria without deteriorating its strategic value.

Taken together, the results support the structure of the model by demonstrating that perceived employability articulates human capital, innovation, and duration in a coherent investment decision system. The management of the training portfolio, therefore, must be aimed at maximising the perception of labour insertion, designing innovation with real impact and optimising duration as a strategic risk variable.

6. CONCLUSIONS

The study confirms that perceived employability is the central strategic variable in the decision to invest in human capital. The results show that the intention to invest does not depend only on the training innovation or the structural characteristics of the programme, but also on the subjective expectation of future labour

insertion. Employability acts as a mediating mechanism that translates training attributes into decision-making behavior, integrating human capital theory with strategic talent management.

Secondly, training innovation acquires decisional value when it increases the perception of professional competitiveness. Empirical evidence supports that its impact is mainly indirect, operating through perceived employability. This implies that innovation should not be designed as an isolated cosmetic or technological element, but as a functional component aimed at improving real expectations of job placement.

Third, the duration of the program emerges as a variable for optimizing risk. The investment decision incorporates an evaluation of the temporary opportunity cost, which confirms that time is interpreted as a strategic economic resource. The optimal duration is not necessarily the shortest or the longest, but the one that maximizes employability while minimizing perceived risk.

In an integrative way, the proposed model demonstrates that educational investment responds to a structured logic where:

- Innovation strengthens employability.
- Employability drives investment intention.
- The duration modulates the intensity of the decision.

This approach allows employability to be transferred from an ex-post indicator of the labour market to an ex ante predictive variable in the configuration of the training portfolio. Consequently, institutions that strategically articulate innovation, curriculum design and temporal risk management will be able to optimize the conversion of intention into effective enrollment.

Finally, the model presents clear conditions of statistical validation and replicability, which allows its application in different institutional and sectoral contexts. Its contribution lies in integrating human capital economics, multidimensional employability and strategic management of the training portfolio in a coherent and verifiable analytical architecture.

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