Open innovation as a strategic driver in Santex's digital transformation

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Innovación abierta como motor estratégico en la transformación digital de Santex

Leandro Andrés Culetto[1], Emmanuel Peña Álvarez[1]

[1]Universidad Siglo 21. Buenos Aires, Argentina.

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ABSTRACT

This paper presented a proposal for implementing open innovation at the technology company Santex, with the aim of incorporating artificial intelligence solutions into the Engage product belonging to its client Temenos. The proposal was structured around the open innovation paradigm developed by Chesbrough, which proposed the possibility of integrating external knowledge into an organization's internal processes. Particular consideration was given to the "outside-in" flow, which allowed Santex to benefit from the specialized knowledge of the startup Rocking Data. The research included a theoretical review of the types of open innovation, its activities, and the steps necessary to execute successful collaborative processes, such as the selection of strategic partners, the organization of the alliance, project management, and the evaluation of results. The associated risks were also analyzed, such as asymmetries in the relationships between corporations and startups, intellectual property conflicts, and the difficulty of aligning incentives. Through this experience, it was concluded that open innovation represented a strategic tool for Santex to accelerate the digital transformation of its solutions, improve its competitiveness, and adapt to market changes. The key lay in designing a structured, participatory process with institutional support that promoted a culture of collaboration and continuous learning among all stakeholders.

Keywords: Open Innovation; Artificial Intelligence; Startups; Collaboration; Technology.

RESUMEN

El presente trabajo expuso una propuesta de implementación de innovación abierta en la empresa tecnológica Santex, con el objetivo de incorporar soluciones de inteligencia artificial en el producto Engage, perteneciente a su cliente Temenos. La propuesta se estructuró en torno al paradigma de innovación abierta desarrollado por Chesbrough, el cual planteó la posibilidad de integrar conocimiento externo a los procesos internos de una organización. Se consideró especialmente el flujo "fuera-adentro", que permitió a Santex beneficiarse del saber especializado del startup Rocking Data. El desarrollo de la investigación incluyó una revisión teórica de los tipos de innovación abierta, sus actividades y los pasos necesarios para ejecutar procesos colaborativos exitosos, tales como la selección de aliados estratégicos, la organización de la alianza, la gestión de los proyectos y la evaluación de sus resultados. También se analizaron los riesgos asociados, como las asimetrías en las relaciones entre corporaciones y startups, los conflictos de propiedad intelectual y la dificultad para alinear incentivos A través de esta experiencia, se concluyó que la innovación abierta representó para Santex una herramienta estratégica para acelerar la transformación digital de sus soluciones, mejorar su competitividad y adaptarse a los cambios del mercado. La clave residió en el diseño de un proceso estructurado, participativo y con respaldo institucional, que promoviera una cultura colaborativa y de aprendizaje continuo entre todos los actores involucrados.

Palabras clave: Innovación Abierta; Inteligencia Artificial; Startups; Colaboración; Tecnología.

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INTRODUCTION

The acceleration of technological change and the growing complexity of markets are challenging organizations to rethink their innovation models. In this context, open innovation is emerging as a key paradigm that allows companies to integrate external knowledge into their internal processes to develop more competitive products, services, or solutions. This concept contrasts with the traditional approach of closed innovation, which is characterized by limiting the development of ideas and technologies within organizations. Under the open innovation model, organizations recognize that valuable ideas can arise both inside and outside their borders, and that their commercialization can also be carried out internally or externally.

This change in approach has been particularly relevant for technology-based companies, such as Santex,[1] which seek to remain competitive in dynamic environments. In particular, the exponential growth of emerging technologies such as artificial intelligence (AI) is forcing companies to accelerate the incorporation of specialized external capabilities, which is why collaboration with technology startups is becoming strategic. Integrating the knowledge and experience of these emerging companies represents an opportunity to strengthen internal capabilities, lower development costs, and reduce time to market.

Within this framework, this research focuses on a proposal for an open innovation process between Santex and the startup Rocking Data, to enhance the development of the Engage product, belonging to their client Temenos,[2] through the incorporation of AI-based solutions. The proposal is based on the theoretical model of open innovation proposed by Chesbrough, which defines two flows of knowledge: from outside to inside and from inside to outside. In this case, the outside-in flow is explored, through which Santex seeks to integrate external capabilities to strengthen its innovation.

It also reviews the critical steps for carrying out this type of collaboration process, including identifying partners, negotiating terms, joint project management, and evaluating results. The associated risks are also addressed, such as intellectual property issues or possible asymmetrical relationships between corporations and startups. In this way, the research seeks to lay the foundations for an effective and sustainable collaboration process that generates value for all parties involved.

DEVELOPMENT

This research provided an overview of the main theoretical contributions of the so-called open innovation paradigm, while also reviewing the different types of activities or forms that this type of innovation can take. Additionally, it outlined the stages that a company and startup should adopt for open collaboration, establishing a reflective position that invites us to rethink how the process should accompany these relationships so that they are equally beneficial for all parties.

In line with the overview provided in the previous paragraph, the first theoretical antecedent of the open innovation paradigm was developed by Chesbrough[3] in his work Open Innovation. In it, Chesbrough recognized that "valuable ideas can come from inside or outside the company and can also be commercialized from inside or outside the company".

With the foundations of this new paradigm established, he defined open innovation as involving openness to "the use of internal and external knowledge flows to accelerate internal innovation and expand markets for external use of that innovation".[3]

This model contrasts with the closed innovation model, in which the knowledge used in the production of goods or services is generated and used within the boundaries of the organization itself.[3]

The out-in flow enabled consideration of a range of open innovation activities, necessitating clarification of those that may be part of the proposed program. In this regard, an analysis of the primary literature was carried out, which detailed a non-exhaustive list of possible activities: intellectual property licensing, acquisition of external technology, use of external networks, collaborative innovation with external partners, crowdsourcing, scanning of external ideas, among others.

For this research, the practice of open innovation, in an outside-in flow, through technological alliances with other specialized companies, took on special importance. This modality has been developed energetically in recent years, mainly through collaboration with emerging companies called startups. Kantis[4,5] gathered diverse opinions on the advisability of establishing these relationships, as they may not be as symmetrical or as beneficial for startups, proposing to evaluate their results and impacts.

Based on the main definitions of the open innovation paradigm and its types of flow, activities, and issues, it was important to establish a framework that considered the process to be developed in a company such as Santex in order to innovate openly and successfully. In this regard, authors outlined the steps required for the adoption of open innovation: a) interest in working with open innovation; b) provision of capital for expenses; c) identification of objectives to be defined; d) securing the right partners for each project; e) negotiation with partners; f) organization of the alliance; g) management of projects; h) evaluation of projects and their results.

The visibility of the process described above was relevant, as it allowed for the structuring and distinction of activities specific to the preparation of the open innovation program (processes a, b, c, and d) from those involving the development of the selected projects or challenges and the measurement of their results (g and h). The proper management of these sub-processes increased the possibility of effective collaboration by allowing the definition of interests, the allocation of investment, the setting of objectives, and the selection of strategic allies, which are key aspects of the relationship model. On the other hand, project management and the measurement of results were essential to determine the effectiveness achieved and to guide possible scalability: innovating with new services, negotiating with new startups, or extending the program to new customers.

Finally, it was essential to bear in mind that this process was fraught with challenges, including collaboration and incentive problems,[6] intellectual property conflicts in co-created innovations,[7,8] and potentially asymmetrical relationships between participants.[9]

CONCLUSIONS

The implementation of open innovation processes represented a key strategic opportunity for technology companies such as Santex, especially in a context characterized by the rapid evolution of emerging technologies such as artificial intelligence.

Based on the analysis of the research and the theoretical contributions reviewed, it was confirmed that this paradigm allowed organizations to integrate external knowledge into their internal structures, generating synergies that strengthened their innovative capacity, reduced development times, and optimized resources.

In the specific context of the collaboration between Santex and the startup Rocking Data, it was evident that the open innovation model under the "outside-in" flow was particularly relevant. This direction of knowledge, supported by the conceptual framework proposed by Chesbrough, enabled the established company to integrate externally developed capabilities, specifically those related to artificial intelligence solutions, thereby enhancing its value proposition to Temenos. In turn, this approach favored adaptability, agility, and continuous technological updating, which are fundamental attributes for remaining competitive in sectors as dynamic as technology and finance.

However, the adoption of an open innovation model was not without challenges. The literature consulted warned of various risks, including possible asymmetries in the corporation-startup relationship, problems related to the intellectual property of co-created innovations, and difficulties in managing incentives and effective collaboration. These factors, if not adequately anticipated and addressed, could limit the scope and sustainability of the initiatives proposed.

Given this scenario, it was essential to have a structured process that included clear stages: from defining strategic interests, identifying and selecting suitable partners, and negotiating agreements, to project management and evaluation of results. This methodological approach, as proposed by Arvaniti, was key to minimizing risks, maximizing benefits, and facilitating decision-making aimed at scaling up and sustaining the model.

Open innovation was not only a viable path but a necessary one to face the challenges of today's environment. Its successful implementation positioned Santex as a leader in the application of artificial intelligence in technological solutions, expanding its collaboration network and strengthening its value proposition for the future. The key was to design a model that balanced the interests of all stakeholders and promoted a culture of collaboration and continuous learning.

FINANCING

None.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTION

Conceptualization: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Data curation: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Formal analysis: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Research: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Methodology: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Project management: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Resources: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Software: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Supervision: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Validation: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Visualization: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Writing – original draft: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

Writing – review and editing: Leandro Andrés Culetto, Emmanuel Peña Álvarez.

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