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## REFLECTIVE FACTORIAL STRUCTURE OF THE MANAGEMENT COLLEGE OF KNOWLEDGE

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**Resumo** - A gestão do conhecimento universitário, ao contrário de sua contraparte organizacional, que é entendida como codificação e decodificação de conhecimentos, habilidades e experiências pelo líder, sugere a inclusão de talentos em torno de um sistema de discussão, acordos, decisões e ações mais democráticas conhecido como governança. Nesse sentido, realizou-se um estudo não experimental com seleção não probabilística e análise fatorial exploratória das relações entre fatores que a literatura identifica como dimensões do fenômeno, mas que em um modelo estrutural se circunscrevem a um fenômeno de segunda ordem. Mas o desenho da pesquisa limitou os resultados ao cenário de uma universidade pública no centro do México, sugerindo o contraste da estrutura em outros contextos de alianças entre universidades e empresas.

Palavras-chave - Demandas, recursos, empreendedorismo, inovação, conformidade

**Abstract** - University knowledge management, unlike its organizational counterpart, which is understood as codification and decoding of knowledge, skills and experiences by the leader, suggests the inclusion of talents around a system of discussion, agreements, decisions and more democratic actions known as governance. In this sense, a non-experimental study was carried out with a non-probabilistic selection and exploratory factorial analysis of the relationships between factors that the literature identifies as dimensions of the phenomenon, but that in a structural model were circumscribed around a second-order factor, But the research design limited the findings to the setting of a public university in central Mexico, suggesting the contrast of the structure in other contexts of alliances between universities and companies .

**Keywords** - Demands, resources, entrepreneurship, innovation, compliance

### Introduction

The objective of this study was to contrast a model for the study of knowledge management by establishing the reliability and validity of an instrument that measured three dimensions related to motivation, innovation and communication, as well as the contrast of the null hypothesis regarding the existence of differences between the



structure of the variables of the phenomenon and the observations of the relationships between its indicators (Sánchez, Juárez, Bustos and García, 2018) .

Knowledge-generating organizations have often been studied from the influence of their culture, structure and flexible and innovative processes, or else, from the influence of their leadership and the continuous training of their talents. Organizations differ in the formation of their human capital and their focus on three dimensions of competencies:

a) The organization **wants** or wants to allude to normative principles that organizational culture predisposes managers and employees to consider traditional forms of production that are seen as role models provided that resemble styles dominant leadership and organizational behavior in companies (Aguilar, Pérez, Pérez, Morales, & García, 2018) .

b) The organization **knows to do** and involves a set of skills and knowledge supported by values and beliefs that the impact on production decisions, quality or competitiveness downplay knowledge generation and management of technologies and processes (Sanchez, Carreon, Molina and García, 2018) .

c) The organization is **capable** of doing and thus is defined by the production of knowledge rather than its management, training of its human capital rather than satisfying their talents and goal setting prior to meeting objectives, as well as the possibility of changes before the purposes and strategies are exhausted (Martínez, Sánchez, Quintero, Barrera, Llamas and García, 2018) .

This is how management and innovation in organizations dedicated to the production and transfer of knowledge are structured in four axes and trajectories:

*From innovation to its diffusion.* Entrepreneurship is an instance that is associated with the organizational agenda. In that sense, innovation is a central issue as it generates opinions in favor and against its implementation because it announces organizational change and with it the emergence of resistance to change. Consequently, the



undertaking of an innovation is a challenge that the actors assume as a threat or as an opportunity within the framework of organizational change (Hernández, Sánchez, Espinoza, Sánchez and García, 2018).

*From entrepreneurship to adoption through dissemination.* If the organizational balance allows the acceptance and implementation of a technology, then the groups in favor of the utility make decisions with a high risk which would be influenced by the motivation of transformative leaders rather than authoritarian, however the undertaking of a technology or process can be implemented through imposition rather than negotiation or consultation (Hernández, Molina & García, 2018).

*From innovation to implementation.* If the organizational climate of tasks prevails over the organizational climate of relationships, then it is a case of forced entrepreneurship and implementation in which talents and leaders lack voice and vote, following pre-established guidelines, the process is determined without considering dissemination to reach adoption. It is a model in which risks are assumed by whoever makes the decision to implement technological innovation or process innovation (García, Rivera and Martínez, 2018).

*From innovation to evaluation through dissemination and adoption, or through implementation.* In the first option, the decision to agree on the adoption of a technology or process implies joint responsibility in the establishment of an agenda to evaluate the costs and benefits, scope and limits of the agreement between talents and leaders (Carreon and García, 2017).

Knowledge management, for the purposes of this work, refers to the codification of skills and knowledge around the production and transfer of knowledge and information from organizations to groups or people who make decisions to carry out optimization resources, or process innovation (García, 2018).

In this way, the management, production and transfer of knowledge from the psychology of organizations is a cyclical and comprehensive process in which leaderships and talents determine styles of innovation, motivation and communication



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oriented towards the creation of knowledge. It is a process of constant entrepreneurship which can start from management but is often influenced by production or driven by the transfer of knowledge from one organization or group to another (Carreon, 2016).

Well, while chained process, management, production and transfer of knowledge is a to opportunist who is unveiled and availability of human capital, mainly intellectual because, although organizations dedicated to the creation of the generating knowledge their own initiatives and proposals, it is talent and human leadership that identify external and internal opportunities to organizations (Vázquez, Carreon & Sánchez, 2017).

In this way, psychology and economics give meaning and meaning to Social Work that studies state institutions and civil organizations dedicated to the creation of knowledge as an instrument of local development (García, 2017).

Rather, from the perspective of Social Work, the creation of knowledge is an inherent part of the norms, values and knowledge that not only reorient the proposals for innovation, communication and motivation from one entity to another, but also represents an instance of satisfaction that would be generated by empathy and commitment (García, Quintero & Carreon, 2017).

This is how the management, production and transfer of knowledge is assumed from Social Work as a dynamic of interrelation of human and intellectual capital with social capital. This means, from a psychological perspective, that it is a collaborative and innovative integral climate, but from the economy it supposes the inclusion of an externality to human and intellectual capital that could be solitarians capital (Pérez, Valdés and García, 2017).

In this way, MSMEs survive the selection process and add to the multiplier effect of investments, transfers and procedures. In the case of technology adoption, it involves a transfer of skills and knowledge that can be established between institutes and MSMEs with the help of the local or federal government, the main promoter and



sponsor of investment fairs or entrepreneurial development, as well as training, internships and employment (Carreon, Hernández and García, 2018).

In this regard, the theory of the climate of innovation is that in the framework of ICT, organizations established strategic partnerships and knowledge networks in order to potentiate their human, intellectual capital and innovative. The prevalence of the climate of relationships and the climate of innovation with respect to the climate of tasks and the climate of support led to the creation of knowledge and added values to the products and organizational processes, increasing their quality, diversity and complexity. In this sense, the diffusion of innovations not only determines consumption, but also the establishment of sectors such as: innovators, followers, early, late, and laggards (García, Hernández and Hernández, 2017).

Knowledge management is established by the leadership style. In this way, four dimensions related to learning, leadership, culture and knowledge generate four factors: tacit to tacit, explicit to tacit, explicit to explicit, and from tacit to explicit (Molina, García & Rojano, 2018).

The creation of knowledge, in its management phase, supposes the emergence of leaderships that, by disseminating their communication and motivation styles, amplify the knowledge network, but limit competition (Villegas, García and Hernández, 2018).

In a second scenario of knowledge creation, management is established based on competition between traditional leaderships and emerging leaderships. In other words, adhocratic-bureaucratic styles coexist with post-bureaucratic flexibility styles (Sánchez, Villegas, Sánchez & Espinosa, 2018).

In a third moment, knowledge management is established from the reduction of a traditional or emerging leadership in relation to the consolidation of the successful leadership and other emerging leadership. It is a cycle of cooperation, strategic alliances and bilateral communication that guarantee a permanent motivation of the talents' expectations.



In the last phase, knowledge management is established by triads that command decision-making based on agreements and responsibilities. It is a new organizational culture: flexible and innovative due to its degree of empathy and commitment, centered on a horizontal structure, bilateral communication and bidirectional motivation (Hernández, Carreon, Bustos & García, 2018).

Organizational innovation has been established from the difference between demands and resources, opportunities and capabilities. In this sense, an increase in external factors and a reduction in internal factors supposes an increase in innovation even when it underlies relationships rather than tasks, since this supposes a dissatisfaction with the climate of relationships and the climate of established tasks (García, Martínez and Rivera, 2018) .

The theory of organizational innovation, following the postulates of the theory of the diffusion of innovations, supposes a new instrumentation that crystallizes in added value, but unlike the diffusion of innovations that poses a propensity to utility and risks, the organizational innovation addresses the balance between demands and resources, opportunities and Capabilities (García, 2018th) .

In this way, organizational innovation is in the first instance an innovative motivational diffusion, instrumented by transformative leaderships, but in the crystallization of entrepreneurship, organizational innovation generates competitive advantages and added values that lead to recognition and prestige.

Consequently, the organizational climate that is generated within the organization fosters the emergence of innovative diffusions, even when leaders are not transforming, innovation is organizational because it is built from the perceptions of demands and resources, opportunities and capacities.

In such a process, the adoption of innovation not only implies its implementation, but also its implementation adjusted to the requirements of talent and leadership (García, 2018b).



Therefore, the theory of organizational innovation not only anticipates scenarios of organizational climates against or in favor of innovation, but also those who make the decisions of adoption, implementation, use, development and evaluation (García, 2018c).

Even the theory of organizational innovation would predict the emergence of initiatives that question the benefits of innovation, as well as the emergence of proposals to replace innovation. In the case of the diffusion of innovation, the relationship climate would be evaluated according to the task climate and not the other way around (García, Espinoza & Carreón, 2018).

In organizations, the relationship between cultures, climates, competencies and behaviors affects the management of leadership, knowledge, technologies and abilities that, in reference to values and beliefs, privilege the achievement of achievements over satisfaction or collaboration (Elizararáz, Molina, Quintero, Sánchez and García, 2018).

However, the competencies related to the groups have been defined from an individual logic since they are indicated by opportunities, capacities and responsibilities inherent to the person rather than their interdependence with the other team members. Even the autonomy of institutions affects school choice and consequently in vocational training through a resume (Garcia, 2018D).

However, the organizational climate, when affected by the outsourcing of specialized personnel, reduces the opportunities and with it the capacities and responsibilities of the employees whose positions involve ordinary functions and therefore susceptible to their replacement (García, 2018e).

In the educational field, labor competencies are the result of a series of deliberate processes in which training and education are knowledge management instruments determined by market demands and the economic context in which organizations operate. However, the opportunities seem to derive from scenarios in which both the





culture and the work environment are affordable with the capacities and responsibilities of their managers and employees (Anguiano, Hernández & García, 2018).

In this sense, leadership training supposes the emergence of strategies aimed at achieving objectives rather than job satisfaction, although they can mean entrepreneurial processes, organizations are also considered as extensions of culture and in this tenor the goals are anchored the climate of relationships as well as the climate of tasks (García, Carreon & Hernández, 2017).

If culture and organizational climate despite being dissimilar impact on vocational training, then learning skills is more oriented know - how that knowledge be. In those professions in which social and interpersonal skills are fundamental to explain the emergence of new forms of collaboration, the competencies are focused on learning technologies and programs related to professional practice rather than with the production of knowledge (Espinoza, Sánchez and García, 2018) .

Even though the optimization of processes and minimization of waste are considered competitive advantages, organizations seem to move towards modernization and consequently, the training of their talents includes a curriculum of skills rather than knowledge or values. In such a scenario, organizations seem to generate opportunities for training and technical training, influencing computational capabilities and reducing the responsibility involved in the consumption of technologies and energy (Carreon, 2016).

Differences between styles of professional training focused on skills rather than knowledge production or social and environmental responsibility can also be observed in the relationships between managers and employees. In the framework of educational institutions, organizational differences translate into learning differences in terms of competencies. Thus, in this way, leaders tend to highlight the achievements more than the learning of skills or respect for the values of the organization (Molina, García and Rojano, 2018).





If it is considered that Globalization is a context in which the global and the local are linked through transnational organizations in alliance with SMEs, then the possibility of discussing the implications that such a context has on the formation of human capital opens up and their work competencies (Sánchez, Bustos, Juárez, Fierro and García, 2018) .

Organizations, as frameworks of knowledge, skills and values, allow the construction of social and environmental responsibility, but at the same time they are determined by climates of relationships and tasks that subsume their traditions. This would prevent socially responsible companies from moving towards a sustainable culture indicated by competencies in perfect balance, however, SMEs are far from inserting themselves in the global concert and transnationals from participating in the local market since their products lack value in the cultural sense rather than economic (Carreon 2016) .

The economic localization involves a few organizational guidelines that impact education systems primarily those in which implementing powers indicates a workforce development. Rather, by containing human capital, organizations build an archetype of themselves known as work culture (Hernández, Carreon & García, 2018).

From the organizational culture it is possible to identify four dimensions related to vocational training and development of organizational competencies: cooperative, adhocracy, competition, pretocracy and marketocracy (Carreon, 2016).

The first refers to collaboration indicated by its degree of commitment, the second suggests a hedonistic dynamic in which its leaders are creative, the third is limited to competencies in the sense of production of knowledge for the efficiency of processes that by their degree Specialization requires leaders trained in technical knowledge. The fourth dimension takes up order as its distinctive hallmark and its conservative leadership, finally, the fifth dimension is adjusted to the dynamics of the market since its leaders seek at all costs to meet the established objectives (García, 2018b).



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Work culture frames a series of principles that guide relationships between individuals in reference to economic, political or social systems. As organizations are limited to global or local processes, leadership styles emerge that adjust the objectives of the organizations to the competitiveness parameters that the context demands (Carreon, 2016).

Despite the fact that individuals and the groups to which they belong have adopted and perfected attitudes, decisions and actions, organizational purposes, as they are linked to social structures, economic systems or government regimes, influence the construction of companies and their forms. organization (Carreon and García, 2017).

The implications that the production and management of organizational knowledge have for social and sustainable responsibility are diverse if it is considered that the culture and the work environment are transversal axes in which the competences are developed and adjusted to the SMEs to the global market while they insert transnationals at the local level. As organizations move from wanting to do to a capacity to do, they limit planning and make their processes more flexible so that professional training their talents approach entrepreneurship rather than the reproduction of knowledge (García, 2018).

Precisely, organizations have known how to navigate the storm that markets imply and the challenges of their competitors, they have even established alliances that force them to divide, often share their profits more than their losses, they have adjusted their resources and capital to satisfy their clients and partners, but they have understood that social and environmental responsibility is only limited to production rather than management and it is in the construction of their cultures where their values have lost relevance compared to skills (Hernández, Anguiano, Valdés, Limón and García, 2018).

In such a scheme, competencies have been transmuted into practices and processes that involve the reproduction of knowledge rather than innovation and autonomy, organizations are moving towards conformity and dependency. The reproduction of organizational models, strategic planning and training of processes indicates the state in



which the organizations are and the future that awaits them as long as they do not modify their culture; values, norms and beliefs (Carreon, 2016).

In contrast, in the scenario towards which organizations that reduce their cultures to simple coexistence protocols are approaching, competencies are only skills that lead to dissatisfaction and disloyalty. The specification of the organizational culture as a competitive factor of propensity for the future, the orientation to sustainability is the determining factor of Local Development. In this sense, the desires, knowledge and capacities act as conditioning factors of the undertaking of business development projects. In the framework of community development, organizational culture is a factor that inhibits or tends to make the insertion of local companies in the global market, as well as the inclusion of transnational companies in the local market (García, 2018a).

In the framework of Local Development where strategic alliances between micro, small and medium-sized companies prevail with respect to transnational companies, the imposition of technologies and processes is a common practice, but increasingly a growing adoption of innovations implies negotiation and internal co-responsibility in the MSMEs which is reflected in their business strategies with transnationals. The specification of a model based on the theoretical, conceptual and empirical frameworks of the literature reviewed in order to be able to study organizational innovation from four hypotheses that when contrasted would indicate the degree of organizational innovation and subsequent areas of opportunity (García, Hernández and Hernández, 2017) .

However, the specificity of each organization requires the inclusion of other factors such as competitiveness or quality that the literature reports as spurious variables that may not have any effect on the variables included in the model, but that in the particular situation of MSMEs would determine an adoption, implementation or evaluation (Carreon, 2016) .

In the context of educational policies for evaluation, certification and accreditation, the influence of the central power of the State through its institutions on organizations, their phases of knowledge creation and strategic alliances (García, 2018c).



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Are four the factors related to the growth of commerce: production capacity, knowledge of the market, differentiation of the product and logistics. However, MSMEs would have their main multiplying factor in the dissemination of their products and services in digital protocols such as Facebook. In another study, 60% of MSMEs have not established an organizational management, production and quality control, but it is the perception of the customer who determines the purchase of products and the requisitioning of services of the commerce (Sanchez Hernandez, Martínez, Villegas and García, 2018).

El knowledge of the market determines the growth of MSMEs in the present work it was observed that the informants have entrepreneurship, innovation and collaboration related to the history of coffee growing town. Internet is the diffuser par excellence of MSMEs in their growth process (García, 2018b).

El organization is essential to define the objectives, tasks and goals of MSMEs, the latter to establish alliances, networks and climates feedback of organizational experience of their peers with which they are associated. L to perception of the customer is the determining factor in the growth of MSMEs. It is the entrepreneurial history of the town and the creativity of the informants that influenced the MSMEs not only to remain, but also to follow an upward trajectory (Molina et al., 2017).

### ***University knowledge management studies***

Studies of knowledge management in general and university knowledge management in particular warn; 1) prevalence of strategic alliances between higher education institutions and knowledge-creating organizations through the system of professional practices and social service that have scholarships sponsored by recruitment companies; 2) academic, professional and labor training aimed at developing competencies in the face of contingent events or specific requirements; 3) establishment of collaborative networks as competitive advantages in the generation of intangible values such as human and intellectual capital (see Table 1)



Table 1. Knowledge Management Studies

Year	Author	Finding
1993	Roger	He defined an innovation as the dissemination of information and its immediate, early, late and lagged effects on the part of potential consumers. In that sense, it established as an essential criterion of an innovation the diffusion and its inclusion in the agenda of potential consumers.
2015	García et al.,	In technological areas, organizations develop competencies related to the use of computers and programs that in principle make them more valuable due to their usefulness and more competitive due to their innovation. In this sense, the development of skills related to leadership or planning are essential to start businesses based on strategic alliances.
2016	Carreón et al.,	Market demands by over-spending the organization's resources induce them to establish strategic cooperation alliances in order to be able to increase the capacities of MSMEs with the support of transnationals, or to develop competitive strategies through the transfer of technology and the implementation of the quality of processes and products.
2016	Carreon	In effect, achievement-oriented organizations seem to ignore initiative and individual or group commitment to enhance goals as the main areas of opportunity that would paradoxically imply capacities related to knowledge production, technological innovation or competitive processes.
2017	Sánchez et al.,	An innovation is not only a new, efficient, efficient and effective alternative solution, but it is also an instrument of persuasion and deterrence of other innovations. Consequently, early and early adopters of innovation take more opportunity risks than consumers late or laggards in adopting the innovation.
2017	Vázquez, Carreón and Sánchez	In this way, the study of organizational innovation can be carried out from the contrast of the hypotheses related to the trajectories of dependency relationships between entrepreneurship, diffusion, adoption, implementation and evaluation of a technological system or Organizational process that affects the generation of competitive advantages and added values.
2017	Pérez, Valdés and García	Organizational cultures in reference to labor competencies are linked by collaboration climates and tasks that reflect the influence of the contexts in which both SMEs and transnationals are exposed in their desire to internalize for the former and foray into local markets for the case of the latter.
2017	García, Carreón and Quintero	However, at the local level, social and environmental responsibility is immersed in the requirements that transnationals request from their maquiladoras and distributors, while the modernization of processes is only an added value to management systems, the business culture of SMEs reveals his wanting to do more than his know-how or his ability to do.
2017	Molina et al.,	Knowledge innovation studies include organizational processes around the governance of innovations. It is a process in which the constant monitoring and evaluation by talents and leaders around innovation, which in itself already supposes an entrepreneurial process not comparable to adoption, but rather to the establishment of an agenda. This is so because governance supposes a constant dialogue between the actors, as well as a joint responsibility between the parties.
2017	Carreón and García	They specified a model according to identity as an indicator of knowledge management, maintaining that affinity with the leader and the project are symptoms of an establishment of problems and issues on the organization's agenda, noting that it is motivational leadership. it is the reflective factor of such a process.
2017	Pérez, Valdés and García	They consider that knowledge management is a continuity of <i>habitus</i> or organizational dispositions against or in favor of an innovative alternative. In other words, identity would only be the result of the transfer of these <i>habitus</i> or dispositions between leaders and talents, but this study highlights that motivation, regardless of its inheritance or learning, is the route that would explain the rational, deliberate, planned process. and systematic production and transfer of knowledge in a network between the public university and the multinational branch.



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2018 Aguilar et al.,	The knowledge management, production and transfer process is exclusive to entities that have the human and intellectual capital capable of diversifying opportunities and resources in order to acquire a utility
2018 Elizarráz et al.,	From the advent of information and communication technologies ( ICTs ), competitiveness and the establishment of a relationship climate, the systematization of internal and external resources emerges in order to establish an organizational change aimed at the development of processes and products, as well as to the implementation of quality criteria and protocols
2018 Hernández et al.,	The competencies seem to slow down the diversity of ideas that the student generates when carrying out an activity. Indeed, identity is linked to access to unstructured information, but consistent with meaningful learning. The student learns based on a repertoire of symbols and meanings produced by the context in which he is found and translated by the group to which he belongs or wants to belong.
2018 García et al.,	That is, competencies in their generic mode are influenced by organizational structures and systems that can inhibit or facilitate the development of more specific competencies. The training and education processes for the development of competencies related to sales are inhibited by the traditional organizational culture.
2018 Juárez et al.,	Employees emphasize learning strategies in terms of process efficiency rather than achieving goals or implementing a work culture. For their part, managers who enhance the values of the company tend to minimize training and education programs, even if employees acquire a series of techniques and strategies, or in any case fulfill the purposes of collaboration, productivity, quality and competitiveness. the management of an identity proliferates on the production of knowledge.
2018 Molina et al.,	Organizations that want to know and are able to carry out leadership styles and process development are closer to an organizational culture in which competencies are resources for change rather than compliance or satisfaction.
2018 Sánchez et al.,	Organizational competencies seem to link the norms, values and beliefs with the knowledge and skills that would indicate an organizational culture focused on processes rather than on the production and management of knowledge, however the competencies highlight the task climate as their distinctive seal since The implementation of technologies implies training and education processes and programs, the skills more than the values would describe technified organizations according to the market demand to the detriment of their planning, strategies and alliances which would only be intermediaries of the essential purpose of inserting the organization to the global concert.
2018 Garcia	That is, as organizations make their processes more complex, they demand greater functions from their employees and by accelerating productivity and quality control, they resort to alternate hiring, thereby inhibiting the work culture, trust and loyalty of their potential talents. In this context, organizational competencies are assumed as skills rather than as knowledge and values. For this reason, the organization goes from being a producer of value to a reproducer of processes, drastically reducing its competitive advantages.
2018 Villegas, García and Hernández	When rather the decision to implement the technology or process is assumed unilaterally, then the self-evaluation prevails over any proposal to improve the technological or processual system adopted.
2018 Molina, García and Rojano	In other words, organizational innovation, unlike other innovations, is a permanent construction of the expectations, needs, capabilities and opportunities of an organization that can be similar to other conglomerates, but acquires a distinctive seal in the generation of rejection or acceptance beliefs Of innovation, even implementation monitoring is the result of beliefs for or against the utility, costs, and risks of adopting the innovation.
2018 Carreón, Hernández and	In other words, the professional dimension of competences is focused on the development of process techniques that would entail an increase in skills while knowledge and values remain unchanged,





	García	professional training of human capital would be defined by technological advances rather than by human development or social and environmental responsibility of organizations.
<b>2018</b>	Hernández, Molina and García	Relationships between managers and employees are developed within the framework of organizational cultures with an emphasis on training their job skills and their implications for social and environmental responsibility. Organizational cultures seem to be linked to the specific competencies of managers and employees. In this regard, there is a substantial difference between what organizations want, know and can do.
<b>2018</b>	Hernández, Molina and García	As organizations have privileged the formation of competencies focused on training and process training, they are exposed to developing products and offering services that separate their clients from themselves. Such phenomenon not only implies disloyalty or mistrust, but also the loss of responsibility in the context that provides them with resources and capital.
<b>2018</b>	Espinoza, Sánchez and García	In the future, the formation of human capital should be limited to the acquisition of values, norms and beliefs that link organizations with consumers. Otherwise, the technician companies that reproduce models, knowledge and processes will aspire to sell only to a wealthy sector that will demand even more innovations and added values without guaranteeing their loyalty.
<b>2018</b>	García, Rivera and Martínez	In this scenario, organizational cultures transform their knowledge into skills since the entry of technology implies a reproduction of processes that training, and education can solve. However, labor competencies, having their origin in poorly structured organizational climates, cause the salary differences between managers and employees to be accentuated now in cultural terms.
<b>2018</b>	García	This is how organizational cultures approach social and environmental responsibility not as the result of knowledge management or knowledge processing, but from vicissitudes derived from the differences between global and local spheres, transnationals and SMEs, management cadres and employees or on a personal level, the differences between values, skills and knowledge.
<b>2018</b>	García	In a scenario in which competencies are the result of the promotion of values, the production of knowledge and the formation of skills, organizational cultures would be in perfect balance with the work environment, investment in technology and the formation of human capital. .

Source: self-made

Secondly, the literature consulted, reviewed, analyzed and synthesized warns of the emergence of innovative scenarios in which trust, commitment, entrepreneurship, productivity and competitiveness are determinants of talent satisfaction and the climate of relationships with their leaders, as well as the two-way motivation of those who make decisions regarding their employees.

In this way, the state of knowledge suggests the inclusion of sociocultural, sociodemographic, socio-economic and sociocognitive variables in the specification of a model of determining trajectories of university knowledge management.





*Specification of a model for the study of knowledge management*

A specified model is the product of the topology of variables that, interrelated, show the possible explanatory trajectories of a phenomenon. In the case of knowledge management, the trajectories that explain the construction of a transfer system of skills, knowledge, tasks and technological devices start from the acquisition and culminate in the clarity of teaching and learning.

Will there be differences between the structure of the knowledge management variables with respect to the relationships to observe between its factors and indicators?

Null hypothesis: There are differences between the structure of variables and the relationships between factors and indicators to observe.

Alternative hypothesis: There are no differences between the structure of variables with respect to the relationships between factors and indicators.

**Method**

In a first study, a non-experimental, cross-sectional and exploratory research was carried out. 457 students from a public university in the State of Mexico were surveyed, considering the semester in which they carry out professional practices, or carry out their social service (see Table 1).

Table 1. Description of the sample

<b>Sex</b>	<b>Age</b>	<b>Entry</b>	<b>Experience</b>
<b>Female (52%)</b>	M = 25.4 SD = 2.1	M = 4.567.1 SD = 213.4	M = 1.4 SD = .82
<b>Male (8%)</b>	M = 24.1 SD = 3.2	M = 5.782.3 SD = 432.1	M = 2.4 SD = .35

Source: Prepared with the study data

Is constructed Scale Management of Knowledge (EGC-28) of Garcia (2018) which includes 21 alluding reactive to acquisition, distribution, creation, exchange,



multiplicity, implementation and clarity. Each item includes the response options: 0 = "not likely" to 5 = "quite likely" (see Table 2).

Table 2. Construction of the EGC.28

	<b>Definition</b>	<b>Indication</b>	<b>Coding</b>	<b>Interpretation</b>
<b>Acquisition</b>	It refers to a purchase of knowledge (García, 2018)	-My institution will contract the distance education service	0 = "not at all likely" to 5 = "quite likely"	High scores suggest acquisition-focused knowledge management
<b>Distribution</b>	It refers to an assignment of tasks through the use of a technology	My institution will designate subjects based on specific competencies	0 = "not at all likely" to 5 = "quite likely"	High scores suggest distribution-focused knowledge management
<b>Creation</b>	Refers to the optimization and innovation of processes	My institution will process the files in a universal database	0 = "not at all likely" to 5 = "quite likely"	High scores suggest creation-focused knowledge management
<b>Exchange</b>	It refers to the balance between demands and knowledge resources	My institution will meet the demands with state-of-the-art technology	0 = "not at all likely" to 5 = "quite likely"	High scores suggest exchange-focused knowledge management
<b>Multiplicity</b>	Refers to the diversification of tasks based on the demands and available resources	My institution will train its employees in several specific competencies	0 = "not at all likely" to 5 = "quite likely"	High scores suggest knowledge management focused on multiplicity
<b>Execution</b>	It refers to the implementation of technologies in tasks	My institution will carry out distance entrepreneurship practices	0 = "not at all likely" to 5 = "quite likely"	High scores suggest performance-focused knowledge management
<b>Clarity</b>	Refers to the effective transfer of knowledge	My institution will evaluate the impact of distance learning	0 = "not at all likely" to 5 = "quite likely"	High scores suggest clarity-focused knowledge management

Source: self-made

The Delphi technique was used for the cultural adaptation of the instrument to the sample, asking a group of experts about the local meaning of words included in the items and integrating the information in the modified items.

The sample was surveyed in the lobby of the library of their university with a written guarantee that the results of this study would not affect their academic or work status, as well as the confidentiality of their responses.

The information was processed in the Statistical Package for Social Sciences (IBM-SPSS-AMOS for its acronym in English version 20.0). The internal consistency of the



instrument was estimated with Cronbach's alpha parameter. An exploratory factorial analysis of principal axes with promax rotation was carried out in order to establish the validity of the knowledge management construct.

In a second non-experimental, cross-sectional and exploratory study, a non-probabilistic choice of 103 students from a public university was carried out. The same Knowledge Management Scale (EGC-28) was used. The ethics and data protection policy, anonymity and confidentiality were continued. The same software was used for statistical analyzes. The model was contrasted with the parameters of goodness of fit (GFI for its acronym in English) and residuals (RMSEA for its acronym in English).

## Results

The Table 3 shows the descriptive properties of the instrument. The scale general (alpha 0.782) obtained a high internal consistency than the minimum required (alpha 0.700) and subscales motivation (alpha 0.781), innovation (alpha 0.759) and communication (alpha 0.774).

Table 3. Instrument descriptions

R	M	D	S	C	A	F1	F2	F3	F4	F5	F6	F7
R1	4.01	1.02	1.03	1.82	,							,
					767							560
R2	4.04	1.04	1.04	1.30	,							,
					753							561
R3	4.07	1.82	1.15	1.46	,							,
					705							567
R4	4.02	1.23	1.34	1.28	,							,
					752							391
R5	4.07	1.25	1.03	1.04	,						,	
					732						451	
R6	4.15	1.81	1.25	1.26	,						,	



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						721			456
R7	4.35	1.01	1.25	1.36	,			,	
						703			486
R8	4.09	1.25	1.38	1.22	,			,	
						742			461
R9	4.23	1.89	1.25	1.92	,			,	
						765			301
R10	4.36	1.22	1.36	1.30	,			,	
						760			391
R1	4.16	1.26	1.49	1.25	,			,	
						742			437
R12	4.39	1.38	1.30	1.36	,			,	
						731			497
R13	4.31	1.01	1.21	1.21	,			,	
						781			486
R14	4.30	1.83	1.43	1.13	,			,	
						732			301
R15	4.37	1.96	1.54	1.14	,			,	
						751			382
R16	4.18	1.04	1.27	1.65	,			,	
						743			451
R17	4.37	1.46	1.12	1.89	,			,	
						793			387
R18	4.34	1.43	1.13	1.98	,			,	
						781			346
R19	4.56	1.56	1.14	1.86	,			,	
						792			325
R20	4.65	1.28	1.43	1.13	,			,	
						767			385
R21	4.60	1.81	1.54	1.14	,			,	
						763			305



R22	4.12	1.12	1.65	1.15	,	,
					781	326
R23	4.32	1.18	1.76	1.41	,	,
					745	396
R24	,	1.10	1.92	1.15	,	,
	436				751	382
R25	4.67	1.15	1.18	1.54	,	,
					791	371
R26	4.76	1.17	1.31	1.67	,	,
					702	346
R27	4.26	1.84	1.14	1.18	,	,
					756	392
R28	4.39	1.78	1.15	1.10	,	,
					741	302

Source: Prepared with the study data: R = Reactive, M = Mean, SD = Standard deviation, C = Kurtosis, A = Cronbach's Alpha. Method d and extraction: principal axes, rotation promax. Suitability and sphericity [ $X^2 = 345.34$  (34gl)  $p = 0.000$ ;  $KMO = 0.760$ ] F1 = Acquisition (17 % of the total variance explained), F2 = Distribution (13 % of the total variance explained), F3 = Creation (12% of the total variance explained), F4 = Exchange (10% of the total variance explained), F5 = Multiplicity (7 % of the total variance explained) , F6 = Execution (5% of the total variance explained) , F7 = Clarity (3% of the total variance explained). All the items are answered with one of five options: 0 “not at all probable” to 5 = “quite probable”.

Once established factors that accounted for 67 % of the total variance explained, we proceeded to estimate as correlations and covariances and among the factors (see Table 4).



Table 4. Correlations and covariances between factors

	F1	F2	F3	F4	F5	F6	F7	F1	F2	F3	F4	F5	F6	F7
F1	1.00							1.48						
F2	,31*	1.00						,61	1.82					
F3	,41*	ns	1.00					,52	,61	1,72				
F4	,32*	,43*	,32*	1.00				,54	,78	,58	1.82			
F5	,45*	,36*	,25*	ns	1.00			,67	,68	,57	,52	1.93		
F6	ns	,41**	ns	,30*	,48*	1.00		,55	,59	,74	,69	,70	1.71	
F7	,32*	,47*	,36*	,26*	ns	,28*	1.00	,76	,62	,63	,72	,61		1.68

Source: Prepared with the study data: F1 = Acquisition, F2 = Distribution, F3 = Creation, F4 = Exchange, F5 = Multiplicity, F6 = Execution, F7 = Clarity: ns = not significant; \* p <0.01; \*\* p <0.001; \*\*\* p <0.0001

It is possible to observe that the factors maintain a positive and significant association, although the covariances suggest that they are related to other factors not specified in the model. The structural model of trajectories of reflective relationships between factors and indicators was estimated

The factorial structure shows the expected associations between the factors since they are assumed to be indicators of a second-order factor, such as the case of knowledge creation, although such factorial solution only explains 67 % of the variance, indicating the effect of other factors such as empathy, commitment or satisfaction that could increase the percentage of the total variance explained of the construct, even when the adjustment parameters [ $\chi^2 = 234,21$  (38gl) p = 0.004 ; GFI = 0.995 ; CFI = 0.990 ; RMSEA = 0.006 ] suggest the acceptance of the null hypothesis regarding the explanation of the creation of knowledge from the theories of management, production and transfer.

## Discussion

The contribution of work to the state of knowledge lies in the discussion of innovative factors that allow a greater understanding of conformity and obedience as limiting paradigms of innovative entrepreneurship. Contribution of this work lies in the interpretation of the meanings of informants entrepreneurs regarding the categories of



strategic alliances, knowledge networks and innovation climate, and in the specification and testing of a model management knowledge, which should have been established its reliability and validity in order to demonstrate the null hypothesis relative to the adjustment of the theoretical relationships with respect to the weighted observations.

The limits of the present study are: 1) the type of exploratory, cross-sectional and qualitative research to find that it is the entrepreneurial history of the town and creativity affects entrepreneurship, innovation and collaboration of MSMEs ; 2) the interpretation of the meanings of alliance, knowledge and innovation by assuming that these are the processes that guide the change of MSMEs , ignoring their uses and customs; 3) the differences with the state of knowledge regarding the management and administration of the three categories in question; 4) the type of non-probabilistic and intentional sample selection, as well as the exploratory factor analysis limit the results obtained to the study sample.

In relation to the literature consulted, which has shown that the creation of knowledge takes place in: a) organizations oriented to the balance between external demands and internal resources; b) organizations with flexible cultures, transformative leadership, two-way communication and intrinsic motivation; c) organizations with quality standards for their processes consisting of evaluation, accreditation and certification; d) organizations with post-bureaucratic structures focused on management rather than administration of the opportunities and capabilities of their leaders and talents, this work has shown that: e) knowledge-creating organizations derive three factors, namely, motivation, innovation and communication.

It is recommended: a) to carry out a quasi-experimental study to establish the incidence of factors that by their control could reveal the degree of entrepreneurship, innovation and collaboration; 2) establish trajectories of dependency relationships between the variables in question; 3) implement the effect of other variables such as micro-financing to observe the changes in a given period of time, 4) the contrast of the model to other contexts and samples different from the study.





## Conclusion

The objective of this work was to specify a model for the study of knowledge generation in a public university in central Mexico with training and work practices in branches of leading multinational companies in the local market.

From a review of indexed literature repositories Latin American leaders as Dialnet, Latindex and Redalyc, the interpretation of speeches of informants and establishing reliability and validity and an instrument that measured three factors indicative of the generation of the knowledge a model was specified.

However, the percentage of the total variance explained suggests the inclusion of other factors related to empathy, commitment and satisfaction that could increase the percentage of the total variance explained, although the review of the literature and the analysis of the key informants do not address them.

In addition, it is necessary to carry out the contrast of the model in Higher Education Institutions with a system of training and work practices in order to be able to show the scope and limits of the specified model with or without the inclusion of factors related to empathy, commitment and satisfaction.

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