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CREACIÓN Y VALIDACIÓN DE UNA HERRAMIENTA PARA IDENTIFICAR CONOCIMIENTOS, ACTITUDES Y PRÁCTICAS DE INTELIGENCIA COMPETITIVA EN MICROEMPRESARIOS

CREATION AND VALIDATION OF A TOOL TO IDENTIFY KNOWLEDGE, ATTITUDES AND PRACTICES OF COMPETITIVE INTELLIGENCE IN MICROENTREPRENEURS

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ABSTRACT

One out of every two microenterprises survive during the first 5 years of its operation, due to factors such as lack of knowledge about the business environment and its administrative and financial structures, on the part of its managers and employees. In this scenario, competitive intelligence (CI) represents an alternative solution in the midst of the current changing and accelerated pace of doing business, including those associated with the Covid19 pandemic. However, the existing competitive intelligence implementation methodologies are currently very complex and costly for smaller companies, which is why this non-experimental cross-sectional research is based on the creation and systematic validation of an agile and practical tool to identify knowledge, attitudes and practices (KAP) on CI, starting with a systematic review of the state of the art related to the concepts of microenterprise and CI, a review of Competitive Intelligence questionnaires and Knowledge, Attitudes and Practices (KAP) questionnaires; and then a content validation by experts, and culminating with a pilot application to measure its reliability through Cronbach's Alpha index; resulting in a tool that favors methodologies or managerial, scientific, commercial or governmental actions that promote the competitive permanence of

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microenterprises, and therefore, the sustainable economic development of the regions.

Palabras clave:
microempresa, sostenibilidad, competitividad, herramienta, inteligencia competitiva

RESUMEN

Una de cada dos microempresas sobrevive durante los primeros 5 años de su funcionamiento, debido a factores como la falta de conocimiento sobre el entorno empresarial y sus estructuras administrativas y financieras, por parte de sus directivos y empleados. En este escenario, la inteligencia competitiva (IC) representa una alternativa de solución en medio del actual ritmo cambiante y acelerado de hacer negocios, incluyendo los asociados a la pandemia de Covid19. Sin embargo, las metodologías de implementación de inteligencia competitiva existentes, resultan hoy por hoy muy complejas y costosas para las empresas más pequeñas, razón por la cual, la presente investigación transeccional no experimental, se basa en la creación y validación sistemática de una herramienta ágil y práctica para identificar conocimientos, actitudes y prácticas (CAP) sobre IC, partiendo de una revisión sistemática del estado del arte relacionado con los conceptos de microempresa e IC, una revisión de cuestionarios de Inteligencia Competitiva y sobre Conocimientos Actitudes y Prácticas (CAP); para luego ejercer una validación de contenido por expertos, y culminando con una aplicación piloto, para la medición de su confiabilidad a través del índice Alfa de Cronbach; dando como resultado una herramienta, favorecedora de metodologías o acciones gerenciales, científicas, comerciales o gubernamentales, que promuevan la permanencia competitiva de las microempresas, y por ende, el desarrollo económico sostenible de las regiones.

Introduction

Microenterprises are the backbone of the world's economies and a key factor in reducing poverty and promoting sustainable development globally (ILO, 2019). They represent more than 90% of enterprises, generate between 60% and 70% of employment and are responsible for 50% of the world's GDP (Stefanikova, Rypakova & Moravcikova, 2015).

According to International Labor Organization (2019), in most countries in the world, more than 90% of all companies can be considered micro, small and medium-sized enterprises (MSMEs), and many of these are classified as microenterprises when they have fewer than ten workers; This size may be considered very small when viewed in isolation, but when considered as a whole, microenterprises account for 70% of global employment and more than 50% of new jobs worldwide (Dini, Marco & Stumpo, 2018).

However, they tend to disappear every year, since in countries in Europe, North, Central and South America and the Organization for Economic Cooperation and Development (OECD), during the first year of operation, they disappear between 20 and 30%, reaching more than 50% in the fifth year. This can be explained by the need to strengthen factors such as schooling, knowledge in the management of administrative and financial structures and the market to which microentrepreneurs and their employees belong (ONU, 2019; Sustainable Development Goals Fund, 2017).

According to Dini & Stumpo (2018) and García et al. (2015) this may be due to the fact that MSMEs have heterogeneous structures specialized in low value-added products, which in turn is related to the difficulty they have in incorporating technical or technological advances, in having bargaining power with their customers and suppliers, in accessing social networks and in having options for upward occupational mobility throughout their working lives; all of this directly influences their performance and their competitive permanence in the market, generating vicious circles of low economic growth, poverty and reduced structural change in the region (see Table 1).

Table 1
Business survival in the world

Country	Survival business in 1 year	Survival business in 3 years	Survival business in 5 years
France	77.9	66.4	51.5
United States	79.4	61.9	51.0
Spain	76.4	55.1	49.5
Chile	85.2	63.0	49.4
Argentina	-	60.1	49.1
Italy	83.3	61.3	47.1
Netherlands	92.6	68.1	45.3
Bulgaria	79.2	60.3	43.9
Poland	87.9	55.7	43.8
Norway	83.7	53.4	43.6
Colombia	78.3	61.0	42.9
United Kingdom	86.3	49.6	39.7
Germany	76.8	50.2	39.6
Mexico	67.0	-	35.0
Portugal	69.0	35.3	29.6

Note. Source: Confecámaras (2017).

These microenterprise survival rates have been explained by various authors from different points of view, including Cordero et al. (2019) and ILO (2019) who describe as contributing factors the type of family relationships, operational costs, lack of financing, market competition, regulatory complexity and the knowledge and experience of both managers and their workforce.

The first are associated with psychological factors, under which entrepreneurial activity and its survival are related to the person's ability to identify business opportunities and transform them into companies. The second, or managerial factors, are associated with the experience, training, knowledge and skills necessary for decision making.

Similar panorama is observed in Colombia and in the Department of Santander, where, in the latter, there are two Chambers of Commerce that cover the total data on companies registered in the region, corresponding to the Jurisdictions of the cities of Bucaramanga and Barrancabermeja respectively, according to which, the total number of new ventures registered in 2018 was 16. 004, of these, 99% were microenterprises represented mainly in the Commerce (42%) and Services (27%) sectors (Bucaramanga Chamber of Commerce, 2019; Barrancabermeja Chamber of Commerce, 2020).

The above, according Remacha (2017) highlights the decisive role that microenterprises play in achieving the SDGs, giving governments the responsibility to develop policies, plans and programs for sustainable development, promoting an ideal scenario where markets are stable, regulated and competitive, financial systems are

transparent, government institutions are free of corruption, raw materials and energy are accessible, consumers have purchasing power and employees are qualified.

In this scenario, CI, defined by Gógova (2015) as the dynamic, systematic and recursive process that transforms, using specific analytical techniques, the relevant and legally obtained information on the competitive environment of companies, with the purpose of facilitating decision making for their benefit; today, the definition of Competitive Intelligence continues to evolve and remains a matter of debate among different authors or experts in the field, describing in Table 2 the closest to the object of this study.

Table 2

Current Concepts on Competitive Intelligence (CI)

Authors/Entities	Concept
Silva e De Muylder (2015)	Systematic process that transforms dispersed data into strategic knowledge. It is information about specific products and technology, it is monitoring external information that affects the organization's market, related to economic, regulatory, political and demographic aspects.
Strategic and CompetitiveIntelligence Professionals (2015)	It is an ethical and systematic process of collecting, analyzing and disseminating relevant, accurate, specific, timely, predictable and active information about the business environment, competitors and the organization itself.
Gógova (2015)	Dynamic, systematic and recursive process that transforms, using specific analytical techniques, the relevant and legally obtained information on the competitive environment of the past, present and future, with the purpose of facilitating decision making for the benefit of the company.
Ortoll and Garcia (2015)	A management process that provides a methodological framework for establishing the necessary mechanisms for capturing information from the environment, analyzing it and obtaining value-added information to be applied to the decision-making process in any part of the organizations' value chain. The function and process of intelligence are widely accepted, but there is a lack of consensus on the terminology used to define them.
AENOR (2018)	The ethical and systematic process of gathering and analyzing information about the business environment, competitors and the organization itself, and communicating its meaning and implications for decision making.

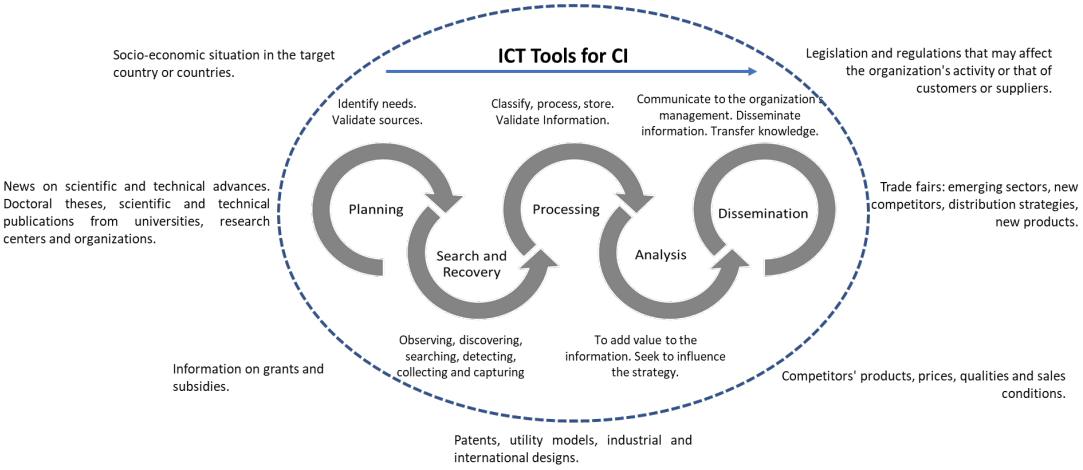
Thus, Competitive Intelligence at the enterprise level, is proposed by Stefanikova et al. (2015) as a management strategy that should be integrated into the structure of organizations and that begins with the definition of a specific business problem, where having clear knowledge of the internal and external aspects of the organization, strategic decision making is reached with the implementation of the best alternative solution, which efficiently responds or anticipates the current changing and accelerated pace of business environments, where business survival no longer depends on the strongest company, but on the one that best and fastest adapts to such changes as those generated in the current pandemic by Covid19.

Therefore, CI in the business environment is understood as a cycle that begins with a specific business problem or need, passing through the knowledge of the internal and external aspects of the organization, and ending with strategic decision making based on evidence, facilitating the identification and implementation of the best alternative solution, according to the characteristics of each organization and its environment. However, as well as the concept of competitive intelligence, the different stages that must be fulfilled for its implementation in the companies is a matter of discussion, being the most accepted for the purposes of this study the proposal described below (Seyyed, et al.,

2016; Gógova, 2015; The Innovation Agency of Bizkaia, 2015; Ortoll & Montserrat, 2015; Spanish Association for Standardization, 2018). According to these authors, it involves collecting data to determine usable information, which can be classified into three types: Open source information or White Information, Gray Information which represents non-public domain information 95 and Dark Information / Espionage which corresponds to illegally collected information (see Figure 1).

Figure 1

Phases of Competitive Intelligence in the business context.



Taking into account the objectives of this study, which are described business competitiveness concepts of several authors such as (Chamber of Commerce of Spain, 2020; Porter, 2016), which, can be adopted by microenterprises, according to business competitiveness models based on innovation models described in this research (Kuratko & Frederick, 2016; Porter, 2016).

Table 3

Concepts of Business Competitiveness

Author	Concept	Characteristics
Michel E. Porter (2016)	Value that a company manages to create for its customers. It can be translated into lower prices than competitors, equivalent benefits or by offering special benefits that compensate for a higher price.	A company's ability to do things better than its competitors, whether in terms of service, product, production, costs, prices or quality, in such a way as to represent an advantage over its competitors.
Cámara de Comercio de España (2020)	Companies are the ones that compete and must possess competitive advantages, but it recognizes the crucial role played by the environment in which the company operates.	They vary according to geographic location or economic sector, because it is essential to identify the critical factors that can lead to business differentiation and actions to improve them.

According to Fuentes et al. (2016), it is correct to state that currently, the definition of business competitiveness has not yet reached a global consensus, which is still under development, without precise limits and without a single definition, generating ambiguities or academic or technical debates when trying to define it. However, there is

unity on the criteria involved in its genesis, such as the creation of sustainable advantages and the production of goods and services with added value, which give businesses the ability to achieve an advantage or superior performance over their competitors.

Thus, the research was based on the systematic generation of a tool that allows the identification of KPIs for strategic business planning and management by microentrepreneurs in the department of Santander, located in northeastern Colombia.

The article is structured as follows: first the population and sample are described, then the systematic process of creating the tool, starting from the conceptualization and relationship between microenterprise and Competitive Intelligence, and finally, the results and discussion of the process of construction and validation of the tool in the microenterprise environment are presented, taking into account the current context of the Sustainable Development Goals (SDGs) in the midst of the Covid19 pandemic.

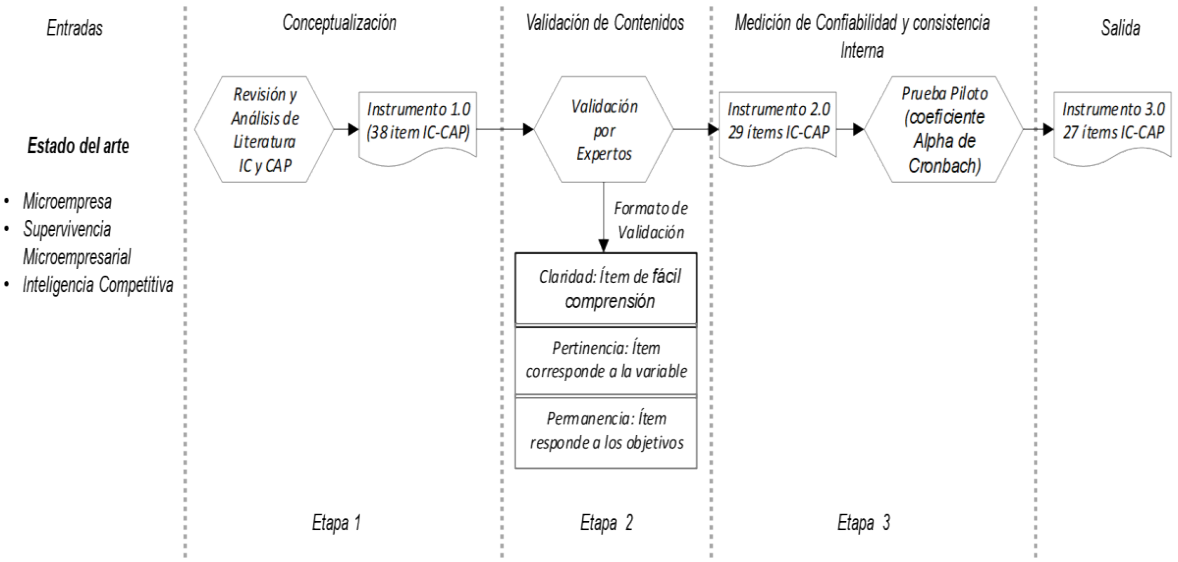
Methods

The methodological design used was non-experimental, transectional or transversal, since the information was collected at a single moment during the research, without modifying the phenomenon or object of study, recording the data collected from the selected sample, without any type of manipulation of the variables or cause-effect correlation between them. Thus, the KAP-CI identification instrument was created in a systematic process in several stages, starting from the state of the art or conceptualization related to microenterprise, Competitive Intelligence, methodologies and methods of implementation of CI at the enterprise level and the questionnaires on Knowledge, Attitudes and Practices (KAP).

After the systematic review of the literature following the PRISMA methodology, an initial instrument called 1.0 was proposed with 38 items, distributed in the variables to be measured, such as: (i) educational level, (ii) knowledge about CI, (iii) attitude about CI, establishing the level of agreement or disagreement with a Likert-type scale, and finally, CI practices.

The next step was a content validation by experts, and, culminating with the measurement 122 of reliability and/or internal consistency, by determining the Cronbach's Alpha index of each of its sections, which, for the purposes of the research, was taken as a minimum reference an index of 0.7 in ascending direction approaching one (see Figure 2).

Figure 2
Systematic construction process of the instrument



The variables measured and analyzed are quantitative in nature and are defined below:

- *Micro-entrepreneurs*: In Colombia, it corresponds to the Legal Entity that according (Law 905, 2004) has the category of microenterprise for having up to 10 workers and total assets below 500 minimum monthly salaries in force.
- *Knowledge of CI*: Set of things known, of knowledge, of "science" about CI, which includes the capacity to represent oneself, the own way of perceiving or understanding CI. The degree of knowledge ascertained makes it possible to situate the areas where information and education efforts are needed (Medecins Du Monde, 2010).
- *Attitudes towards CI*: A way of being, a position of microentrepreneurs about CI. It is about tendencies, about "dispositions to". It is an intermediate variable between the situation and the response to that situation (Medecins Du Monde, 2010).
- *CI practices*: These are observable actions of an individual in response to a stimulus. They are the concrete aspect, the action on the use of CI and way of doing it (Medecins Du Monde, 2010).

Population and Sample

The population consisted of 242 microenterprises registered during 2019 in the database of a non-governmental organization, which are scattered in the department of Santander; for this reason, and given the current biosecurity conditions for Covid19 in the country and the world, which limit access to the sample units in person, the pilot test of the instrument was applied virtually to a sample, thus facilitating access to each entrepreneur, respecting the biosecurity measures against Covid19, and the efficient use of resources during the process; The pilot test of the instrument was applied virtually to a sample, which made it easier to reach each entrepreneur, respecting the biosecurity measures against Covid19 and the efficient use of resources during the planning, logistics and data 152 collection processes.

Subsequently, with the obtaining of a sample of 30 non-probabilistic microentrepreneurs for the application of the pilot test, according to Salgado (2019) with a confidence level of 95%, error of 5% and a variability of 95%, we proceeded to the selection of the sample elements, according to (Hernández Sampieri & Mendoza Torres, 2018), through a table of random numbers, selecting every 3 elements to the entrepreneur until reaching the number of the established sample, in the department of Santander, independently and with the same possibility of being chosen.

Results

The instrument was validated, through the following stages (Berges, 2018; Bolio & Pinzón, 2019; Fernández, Santos & Carvalho; 2015):

Content Validation

The 1.0 instrument was reviewed by a group of experts, who analyzed the following aspects of each item:

- *Clarity*: the approach is easy to understand or is confusing. If the item is confusing.
- *Relevance*: correspondence between the item and the variable
- *Permanence*: whether the item should remain as part of the instrument, since it responds to the objectives of the study.

Thus, taking Instrument 1.0 as a basis, the validation was carried out by experts, who considered its 38 items in the light of the following sections of the research: i) Description of the Instrument Validation Process; (ii) Statement of the Study Problem; (iii) General and Specific Study Objectives; (iv) Study Research Questions; and (v) Study Hypotheses.

With the above, the group of experts reviewed and evaluated the clarity, relevance and permanence of each item in the instrument, making the adjustments recommended by them to the instrument 1.0, resulting in the instrument 2.0 accepted and/or validated by the technical experts, with a number of 29 questions or items, distributed in the variables, as follows: (i) it was renamed "Basic Data of the Interviewee and the Company", (ii) the "Knowledge about CI" (See table 3.11), (iii) the "Attitude about CI", establishing the level of agreement or disagreement with a Likert-type scale, to which was eliminated within the possible answers "I don't care" and remained, the option to answer "I don't know"; and finally, (iv) the "CI Practices".

Reliability and Internal Consistency Measurement

At this stage, the instrument 2.0 is subjected to a pilot test on 30 microentrepreneurs with the pertinent informed consent, randomly selected from a database, with the results of which the Cronbach's Alpha coefficient is estimated section by section or variable of the instrument: i. Basic Data of the Interviewee and Company, ii. Basic Data of the Respondent and the Company, ii. Knowledge about CI iii, Attitude about CI and v. CI Practices section by section of the instrument. CI Practices section by section of the instrument Thus, the internal consistency of the instrument is determined in each section, where regarding its interpretation according to (Hernández & Torres, 2018) citing several authors, and for the purposes of this study, taking into account that it is the first time that an investigation of this type is carried out in the department of Santander and worldwide there are few instruments based on KAP on CI, the minimum value of the

reliability coefficient taken as acceptable, was 0.7 ; resulting in the 3.0 or final version; with a total number of 29 items distributed in the different sections of the tool.

The measurement of Cronbach's α coefficient was carried out section by section of the instrument, obtaining in the first instance a coefficient of 0.69 in section (i) Basic Data of the Interviewee and the Company. With this global data of the Cronbach's Alpha coefficient of section i, we proceeded to analyze each of its reagents or items with less bivariate correlation, finding that by eliminating item S.1.5, we would obtain a Cronbach's α of 0.806 (see table 3).

Table 3
Cronbach's Alpha Coefficient Analysis Section i.

Items	Total correlation of corrected elements	Cronbach's alpha if itemis deleted
S.1.1 Indicate the total years of your work and/or professional experience.	0.943	0.314
S.1.2 Indicate your company's average annualincome (in Colombian pesos)	0.875	0.37
S.1.3 Indicate your education level	0.612	0.583
S.1.4 Indicate the Sector to which your company belongs	0	0.738
S.1.5 Indicate your company's business scope	-0.153	0.806

Similarly, when analyzing section (ii) Knowledge about CI, a Cronbach's α of 0.856 was obtained, indicating a bivariate correlation that allowed the total permanence of the items in this section (see Table 4).

Table 4
Cronbach's Alpha Coefficient Analysis Section ii.

Cronbach's alpha	Number of elements
0.856	6

In the global analysis of section (iii) Attitudes on Competitive Intelligence, an indicator of 0.575 was found, for which reason it was necessary to analyze the bivariate correlation of each of its elements, finding that, according to the forecast provided by the statistical program, by eliminating item A.1.8, a satisfactory result of Cronbach's α of 0.701 would be obtained (see Table 5).

Table 5
Analysis of Cronbach's Alpha Coefficient Section iii

Item	Total correlation of corrected elements	Cronbach's alpha if item is deleted
A.1.1 The use of Competitive Intelligence in the company is key to make decisions focused on the sustainability, development and/or growth of the company.	0.26	0.568
A.1.2 Obtaining information on the company's competitive market environment in an ethical and systematic manner is complex and costly.	0.988	0.146
A.1.3 Analyzing and interpreting the information obtained in an ethical and systematic manner from the company's competitive market environment requires hiring specialized personnel.	0.059	0.636
A.1.4 Obtaining, analyzing and interpreting information from the company's competitive market environment in an ethical and periodic manner is key to identifying new technology for the benefit of the company.	0.948	0.432
A.1.5 Obtaining, analyzing and interpreting information from the company's competitive market environment in an ethical and periodic manner is key to identifying new technology for the benefit of the company.	0.284	0.557
A.1.6 Obtaining, analyzing and interpreting information from the competitive environment of the market the company in an ethical and periodic manner is key to the generation of new products or services.	0.639	0.49
A.1.7 Obtaining, analyzing and interpreting information from the company's competitive market environment in an ethical and systematic manner is key to making decisions that benefit the company.	0.284	0.557
A.1.8 Analyzing and interpreting information on the company's competitive trading environment obtained in an ethical and systematic manner requires complex and costly technological tools or techniques.	-0.249	0.701

Finally, when analyzing section (iv) Competitive Intelligence Practices, a Cronbach's α of 0.894, without the need to suppress any item to achieve a better confiability of this section (See Table 6).

Table 6
Cronbach's Alpha Coefficient Analysis Section iv

Cronbach's alpha	Number of elements
0.894	10

With the data obtained, the reliability of the instrument was determined, resulting in the 3.0 or final version; with a total number of 27 items, distributed among the variables, as follows: (i) "Basic Data of the Interviewee and the Company", from which the initial item S.1.4 was eliminated, leaving 4 items of the 5 initially present (See table 7), (ii) the "Knowledge about CI" (See table 8), (iii) the "Attitude about CI", establishing the level of agreement or disagreement with a Likert-type scale, in which the item A.1.4 was eliminated, giving 7 items of the 5 initially present (See table 8), (iv) the "Attitude about CI", establishing the level of agreement or disagreement with a Likert-type scale, in which the item A.1.1 .4 was eliminated, leaving 7 items out of the 8 initially present in stage 2 (see Table 9); and finally, (iv) "CI practices" (see Tables 7, 8, 9 and 10).

Table 7
Competitive Intelligence Knowledge, Attitudes and Practices Identification Instrument: Basic Data Section of the Interviewee and the Company

Variable	Question/Item	Response Options
S.1 Basic Data on the Interviewee and Company	S.1.1 Indicate your last level of studies attained	Completed elementary or high school
		Graduate Technician or Technologist
		University Graduate
		Graduate Postgraduate
	S.1.2 Indicate the total number of years of your work and/or professional experience	Less than one year
		Between 1 and 5 years
		Between 6 and 10 years
		More than 10 years
	S.1.3 Indicate the Sector your company belongs to	Manufacturing
		Service
		Trade
		Another
	S.1.4 Indicate the average annual revenue level of your company	Less than 50 million
		Between 50 and 100 million
		Between 101 million and 500 million
		More than 500 million

Table 8

Competitive Intelligence Knowledge, Attitudes and Practices Identification Instrument: Competitive Intelligence Knowledge Section

Variable	Question/Item	Response Options
C.1 Knowledge of Competitive Intelligence	C.1.1 Of the following definitions, which one is most closely related to Competitive Intelligence. (Check only one option)	Ethical and systematic process of gathering and analyzing information for strategic decision making.
		Conjunto de actividades coordinadas, con fecha de inicio y final, para lograr un objetivo estratégico
		Set of coordinated activities, with a start and end date, to achieve a strategic objective
		I don't know
	C.1.2 Competitive Intelligence at a business level, is understood as a cycle that begins with: (Check only one option)	Knowledge of the internal and external aspects of the company.
		A specific business problem or need
		Strategic decision making
		I don't know
	C.1.3 The main benefit of using Competitive Intelligence in the company is related to: (Check only one option)	Allows tools or practices to spy on and obtain confidential information from competitors
		Allows for research and/or market studies
		It allows transforming information into knowledge for decision making focused on the company's sustainability.
		I don't know
	C.1.4 Of the following stages, which one corresponds to the logical and orderly cycle of competitive intelligence? (Check only one option)	Analyze - Interpret - Communicate - Plan - Procure - Organize
		Planning - Obtaining - Organizing - Analyzing - Interpreting - Communicating
		Planning - Analyzing - Interpreting - Communicating - Obtaining - Organizing
		I don't know
	C.1.5 ¿Which of the following sources of information do you consider to be the most used in the process of Competitive Intelligence by the companies? (Check only one option)	Internet search engines (example: Google, Yahoo, Microsoft)
		Social Networks (Facebook, LinkedIn, Twitter)
		Free Software
		Software at cost
		Family and friends
		Company's employees and/or marketing employees
		Private detectives
		Academic events, trade or professional fairs
		International Patent System
		Own knowledge and experience
		I don't know
		None
	C.1.6 ¿Which of the following techniques for analyzing information on the competitive business environment do you consider to be the most widely used by companies? - (Check only one option)	PEST Analysis
		Value Chain
		Porter's Five Forces
		SWOT Analysis
		ROI
		SPIN Method
		I don't know
		None

Table 9

Competitive Intelligence Knowledge, Attitudes and Practices Identification Instrument: Competitive Intelligence Attitudes Section.

Variable	Question/Item	Response Options
A.1 Competitive Intelligence Attitudes	A.1. The use of Competitive Intelligence in the company is key to make decisions focused on the sustainability, development and/or growth of the company.	Completely disagree
		Disagree
		Agreed
		Completely agree
		I don't know
	A.1.2 Obtaining information on the company's competitive market environment in an ethical and systematic manner is complex and costly.	Completely disagree
		Disagree
		Agreed
		Completely agree
		I don't know
	A.1.3 Analyzing and interpreting the information obtained in an ethical and systematic manner from the company's competitive market environment requires hiring specialized personnel.	Completely disagree
		Disagree
		Agreed
		Completely agree
		I don't know
	A.1.4 Obtaining, analyzing and interpreting information from the company's competitive market environment in an ethical and systematic manner is key to making decisions that benefit the company.	Completely disagree
		Disagree
		Agreed
		Completely agree
		I don't know
	A.1.5 Obtaining, analyze and interpret information from the competitive environment of the market the company in an ethical and periodic manner, it is key to the generation of new products or services.	Completely disagree
		Disagree
		Agreed
		Completely agree
		I don't know
	A.1.6 Obtaining, analyzing and interpreting information on the company's competitive market environment in an ethical and regular manner is key to identifying and accessing new markets or customers.	Completely disagree
		Disagree
		Agreed
		Completely agree
		I don't know
	A.1.7 Obtaining, analyzing and interpreting information from the company's competitive market environment in an ethical and periodic manner is key to identifying new technology for the benefit of the company.	Completely disagree
		Disagree
		Agreed
		Completely agree
		I don't know

Table 10

Competitive Intelligence Knowledge, Attitudes and Practices Identification Instrument: Competitive Intelligence Practices Section

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Variable	Pregunta/Ítem	Opciones de Respuesta
P.1 Competitive Intelligence Practices	P.1.1 ¿Have you used Competitive Intelligence in your company to make decisions focused on the sustainability, development and/or growth of the company?	YES
		NOT
		I don't know
	P.1.2 Of the following sources of information, ¿which have you used most frequently in the last year to obtain, analyze and interpret information about your company's environment? (Check only one option)	Internet search engines (example: Google, Yahoo, Microsoft)
		Social Networks (Facebook, LinkedIn, Twitter)
		Free Software
		Software at cost
		Family and friends
		Company's employees and/or marketing employees
		Private detectives
		Academic events, trade or professional fairs
		International Patent System
		Own knowledge and experience
		Other, which one?
		None
	P.1.3 Which of the following information analysis and interpretation techniques ¿have you used in the last year in your company? (Check only one option)	PEST Analysis
		Value Chain
		Porter's Five Forces
		SWOT Analysis
		ROI
		SPIN Method
		Other, which one?
		None
	P.1.4 Was gathering information about the company's ¿Was it complex and expensive?	YES
		NOT
		I have not done it
	P.1.5 To analyze and interpret the information obtained from the company's competitive market environment, Do you have specialized personnel hired exclusively for these tasks?	YES
		NOT
		We do not perform these tasks
	P.1.6 For monitoring the competitive environment of the company's market, ¿Do you use complex and expensive technological tools or techniques?	YES
		NOT
		I have not done it
	P.1.7 In the last year, have concrete decisions been made in the company, thanks to the process of obtaining, analyzing and interpreting information from the environment?	YES
		NOT
		We make decisions without the need to obtain, analyze and interpret information from the environment.
		We obtain the information, but it is not communicated within the company for decision making.

	P.1.8 Has obtaining, analyzing and interpreting information on the company's competitive market environment facilitated the generation of new products or services?	YES
		NOT
		We generate new products or services, without the need to obtain, analyze and interpret information from the environment.
		We obtain the information, but we have not used it to generate new products or services.
	P.1.9 Has obtaining, analyzing and interpreting information on the company's competitive market environment helped you to identify and access new markets or customers?	YES
		NOT
		We have gained access to new markets or customers without the need to obtain, analyze and interpret information from the environment.
		We obtain the information, but have not used it to identify and access new markets or customers
	A.1.10 ¿Has obtaining, analyzing and interpreting information on the competitive market environment of your business enabled you to identify and access new technology to the benefit of the company in the last year??	YES
		NOT
		We have accessed new technology without the need to obtain, analyze and interpret information from the environment.
		We have not used the information obtained to identify and/or access new technology for the benefit of the company.

Discussion and conclusions

The main objective of this research was the generation and systematic validation of an instrument to identify the KAP on KI in the management of microenterprises in the department of Santander, located in northeastern Colombia, and thus offer microentrepreneurs the possibility of identifying the need to acquire new knowledge in line with market trends, the SDGs and the type of business in which they operate or expect to operate, perhaps translated into a greater investment to innovate in their own products, services and/or production and/or marketing processes, which would result in the competitive sustainability of their companies.

With the results of the study, a solution is also given to the postulates proposed by Pereira & De Souza (2016) who state that currently, the application of CI in business environments, is complex, costly and with few studies that provide complete and practical information on how to apply them; which represents a barrier to access the selection of the most appropriate by managers, in the search for tools that enable intelligent decision making in pursuit of sustainable and competitive business; which according to Moya & Moscos (2017); hinders the implementation of Competitive Intelligence in microenterprises, since they also state that they imply robust data processing systems and/or technologies and a specialized human resource of high performance for its use, in the analysis and consequent strategic decision making, which together, may represent costs above the possibilities of microentrepreneurs, when applying or adapting CI to their business needs (Djerdjouri, 2020) agrees, stating that although today, microentrepreneurs are more aware of the crucial role that CI plays in the performance and competitiveness of their businesses, the main reasons for its non-use, specifically in smaller companies, are the complexity and high cost of implementing and managing current models.

Likewise, at the scientific, political or trade union level, it focused on providing an agile, useful and low-cost way of collecting information that could be used as a basis or reference for the creation or strengthening of methodologies, initiatives, training programs or lines of research, not only related to the generation of innovation and entrepreneurship, but also to the permanence or competitive survival of microenterprises according to the region or commercial geography where they operate, impacting positively on the creation of formal jobs and therefore on the sustainable economic development of the regions, incorporating the questionnaire as an instrument to arrive at results with analysis based on chi-square or the relationship or grouping of variables.

The tool, product of the study, is proposed to be applied according to the possibilities or needs of access of researchers in future studies, both in person and by remote communication channels, through virtual media or mechanisms, which although they favor reaching distant and dispersed places at low costs, and to a larger population, this modality, confirming the postulates of Torres et al. (2019) and Alarcón & García (2018), have the limitation of presenting a low response rate of the people who access or participate in the research, making it difficult to reach 100% of both the target population and the sample of each study according to each particular case.

Finally, it should be taken into account that the content recorded in section "i" of the instrument, on Basic Data of the interviewee and the company, is proposed according to the conceptualization of the country where the study was conducted, so that the authors of future research or applications of the instrument should consider the need to adapt the response options corresponding to items S.1.2 - S.1.3 and S.1.4 to the characteristics of their own countries or regions.

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