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RELATIONSHIP BETWEEN INFORMATION MANAGEMENT, KNOWLEDGE MANAGEMENT, AND INFORMATION LITERACY WITH COMMUNICATION FOR INNOVATION

RELAÇÃO ENTRE GESTÃO DA INFORMAÇÃO, GESTÃO DO CONHECIMENTO E COMPETÊNCIA EM INFORMAÇÃO COM A COMUNICAÇÃO PARA INOVAÇÃO

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ABSTRACT
Purpose: To identify the relationship between information management, knowledge management, and information literacy and Communication for Innovation in a financial services company context. **Methodology**: The survey method was utilized through a self-administered questionnaire distributed via corporate email. A total of 712 responses were analyzed through Structural Equation Modeling. **Results:** In the context studied, information management, knowledge management, and information competence are positively related to communication aimed at innovation, with knowledge management having the most considerable influence, with Communication for Innovation and information management presenting the least influence. **Practical implications:** By identifying aspects that influence Communication for Innovation, organizations can more efficiently allocate their resources to promote innovation. **Originality and value**: The article contributes to the Administration and Information Science literature by quantitatively exploring the relationship between themes. This is especially significant as no previous literature has identified such a relationship, particularly in the context of financial organizations in emerging economies.

Descriptors: Information management. Knowledge management. Information competence. Communication. Innovation.

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1 INTRODUCTION

In 2022, the global organization KPMG elaborated a document titled "Voices in 2030: The New Reality for Financial Services," which discusses the financial landscape in 2030. The document provides guidance for organizations within the financial services sector on how to prepare for the upcoming changes. Among these requirements are social awareness, where, in addition to profit, aiming at the transformation of society, clarity of purpose, trust, and efficiency in data management, ensuring customer security and privacy. Simplicity and agility are also requirements for organizations, as well as retaining talent and having leaders capable of preparing and managing a digitally advanced workforce, capitalizing on potential opportunities, and reimagining the future because what is certain is only how uncertain the future can be. Hence, the ability to innovate is essential for organizations in the sector.

The ability to innovate and improve processes, products, and services is possible when the knowledge built by organizational individuals in everyday interactions with internal and external customers is internalized, evaluated, organized, recorded, and appropriated in a way that is useful in generating innovative ideas. For this to occur continuously and satisfactorily, there must be tools, practices, and management processes to transform the knowledge existing in the minds of individuals and in the relationships between them into knowledge that can be used and shared in the organization (Scaliza *et al.*, 2022), in addition to an organizational culture that supports and sustains the production and sharing of information and knowledge, as well as users who have the skills to deal with information and the efficient management of activities involving information and expertise.

The transformation of individual knowledge into organizational knowledge, the generation of new knowledge, and the creation of innovative ideas that can be transformed into new or improved processes, products, and services necessarily involve the sharing of knowledge, aiming at the creation of innovation (Areed *et al.*, 2021).

Therefore, the organization must be concerned with promoting interaction

between people (Pacheco; Paul, 2023) and developing communication focused on innovation. To this end, its culture, processes, and programs must support the dynamics of appropriation of information and knowledge through individuals who are able to appropriate knowledge and, from there, communicate it to their peers because, according to Choo (2006), knowledge can suggest new products and services capable of meeting unmet demands and thus contribute to the economic, social and environmental development of society.

In order for people to participate effectively in the process of identifying, appropriating information, and building and sharing knowledge, they must be able to use information in a critical, reflective, autonomous, and ethical way in the various situations of their daily lives, which is defined as information competence, according to Del Massa, Damian and Valentim (2018).

In this sense, this research addresses and relates the processes of information management (IM), Knowledge Management (KM), Information Competence (CoInfo), and Communication for Innovation.

IM is a process for obtaining information at a reasonable cost and time (Valentim; Jorge; Ceretta-Soria, 2014), focuses on the formal flows of the organizational environment, what is systematized, formalized, and explained in electronic, digital, or paper documents (Valentim, 2008) and which will later subsidize the organizational subject in the performance of its function (Valentim; Souza, 2013).

KM is a set of actions whose main objective is to make all the knowledge involved in the organization (tacit, explicit, individual, internal, and external) to be systematically transformed into organizational or corporate knowledge, accessible and shared so that it expands individual knowledge and improves the contribution of subjects in achieving the organization's objectives (Pérez-Montoro; Gutiérrez, 2008).

CoInfo is a set of behaviors, skills, and actions that involve the access and use of information in an intelligent way, given the need for knowledge construction and intervention in social reality (Belluzzo; Kobayashi; Feres, 2004). In an integrative view, it comprises a set of knowledge, skills, and attitudes necessary to conduct a particular activity and the person's performance in a given context

in terms of behaviors adopted and achievements resulting from the access and use of information for the construction of knowledge (Belluzzo, 2018).

Communication represents the sharing of information in a context of social exchange that triggers changes in the symbolic repertoires and knowledge collections of individuals responsible for the construction of identities (individual and collective) and cultures (local and universal) (Gomes, 2010). Through the social interactions made possible by communication, the perception of the world, society, and man is captured, and values, beliefs, and ideologies are conceived and used to support behaviors and choices (Porém; Guaraldo, 2012).

According to Machado, Lehmann, and Araujo (2008), innovation is the transformation of ideas into solutions that meet existing or latent needs, resulting in a creative activity that materializes in the form of new or modified products, processes, and systems. This transformation occurs from the creation and exploitation of knowledge by organizations through three concomitant activities: generating and sharing tacit knowledge, testing and prototyping explicit knowledge, and extracting and leveraging external knowledge (Choo, 2006), i.e., innovation, in the context of organizations, depends on the organizational learning capacity, to create new knowledge, disseminate it throughout the organization and incorporate it in the form of new products, processes, and services.

Thus, in this research, Communication for Innovation enables social exchanges for the construction of individual, collective, and organizational knowledge that aims to generate ideas and transform them into solutions that meet the organization's needs regarding new or improved processes, products, and services.

2 METHODOLOGY

Supported by the literature review on the topics, the hypotheses of this research were constructed and evaluated using the quantitative approach, where data are measurements in which numbers are used directly to represent the properties of something. As they are recorded directly with numbers, the data are in a form that lends itself to statistical analysis (Hair *et al.*, 2009). The Survey

method was used, with a self-administered questionnaire sent by corporate e-mail, with the support of the Outlook tool - Microsoft Office 365. According to Forza (2002), the survey method consists of collecting information from individuals on issues related to them or the organizations in which they work. The Survey via the Internet has the advantage of speed, obtaining high quality and reliable data, as they are impossible to be manipulated at low cost (Hair *et al.*, 2009; Fan; Yan, 2010).

The hypotheses were evaluated through quantitative analysis to confirm or refute the relationship between COINFO, IM, and KM with Communication for Innovation and such hypotheses. The data collected were analyzed using Structural Equation Modeling (SEM). This choice is because SEM has the advantage of allowing the simultaneous analysis of the relationships between a wide range of variables (Hair *et al.*, 2011). Ismail, Hamid, and Idris (2012) state that SEM allows researchers to test contextual frameworks ensuring a robust and holistic analysis. As it is an advanced technique of treatment and statistical analysis of data, it allows refined research (Gosling; Gonçalves, 2003), making it possible to test a theory of causal order among a set of variables (Klem, 1995), offering the researcher the possibility of investigating how well the predictor variables, in this work COINFO, IM, and KM explain the dependent variable, in this case Communication for Innovation, and also which of the predictor variables is the most important.

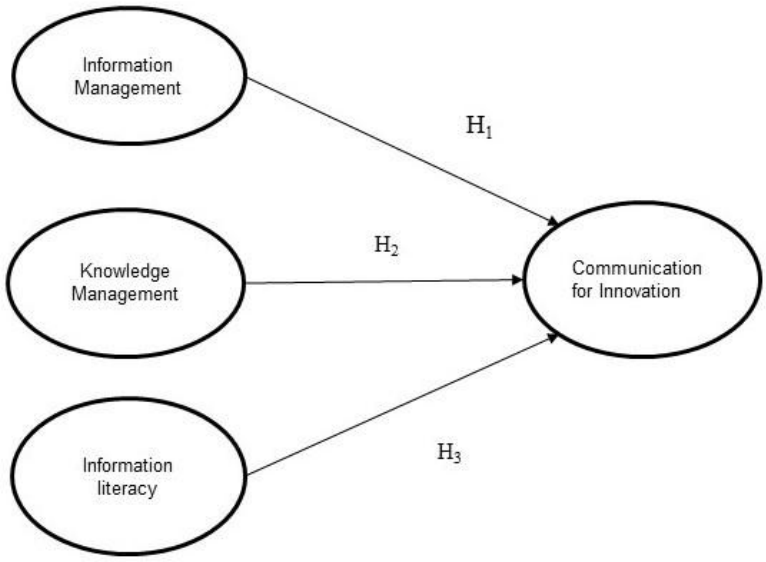
The following figure shows the quantitative research proposal, where this relationship was investigated through the formulation of hypotheses based on the literature. Three research hypotheses formulated in the following terms were proposed:

H1: Information management contributes to Communication for Innovation in a service sector company;

H2: Knowledge management contributes to Communication for Innovation in a service sector company;

H3: Information competence contributes to Communication for Innovation in a service sector company.

Figure 1 - Research hypotheses



Source: Elaborated by the authors (2023)

Figure one shows the relationship between the variables investigated through the application of the questionnaire. Thus, the questions referring to hypothesis 1 sought to confirm or refute the contribution of the IM variable in Communication for Innovation; the answers to the questions referring to hypothesis 2 sought to confirm or refute the contribution of KM in Communication for Innovation, as well as the questions elaborated related to hypothesis 3, sought to confirm or refute the contribution of CoInfo with Communication for Innovation. This method of data collection and analysis was also used in works such as Donate and Sánchez de Pablo (2015), Koohang, Paliszkiewicz and Goluchowski (2017), Ding, Choi and Aoyama (2019), Wolor *et al.* (2020), and Muhammed and Zaim (2020).

A questionnaire was used as a data collection instrument, based on the literature in the area and consisting of questions formulated and tested in previous studies. The statements referring to IM were extracted from the works of Buenechea-Elberdin, Sáenz, and Kianto (2018) and Cabrilo and Dahms (2018). The statements referring to KM are found in the works of Jiménez-Jiménez and Sanz-Valle (2011), Andreeva and Kianto (2011), and Buenechea-Elberdin, Sáenz, and Kianto (2018), the assertions regarding CoInfo are based

on the works of Ottonicar, Feres, and Valentim (2017) and Ahmad, Widén, and Huvil (2020) and Communication for Innovation is based on the works of Werutsky (2016) and Santos *et al.* (2019). The statements were evaluated using a five-point Likert scale: 1) strongly disagree, 2) disagree, 3) indifferent (or neutral), 4) agree, and 5) strongly agree.

After choosing the questions that would compose the questionnaire, specialists analyzed it for better understanding by the respondent public. This analysis had the collaboration of a master in Language and Literacy, a doctor in Administration, a doctor who specialized in Statistics, and a professional at the managerial level of the company to which the questionnaire was applied. Based on the considerations of the evaluators, the pertinent modifications were made, and the research focus organization authorized the application of the questionnaire. The questionnaire went through a pre-test phase, in which 47 answers were collected from people with characteristics like those of the sample object of the research to verify if any of the questions led to very different answers or if any of the scales presented inadequate reliability and validity indexes. Despite the small size of the pre-test sample, the idea of this phase was to verify any more complex situation that would merit an adjustment in any of the assertions used.

The pre-test phase did not show inadequate results, with the data of composite reliability (CR 0,7), convergent validity (AVE 0,7) (Byrne, 2010; Marôco, 2014), and discriminant validity (cross-loading) (Hair *et al.*, 2009; Hair *et al.*, 2014), meeting the parameters demanded by the literature.

Data collection took place from December 27, 2021, to January 31, 2022, targeting employees working at the strategic level of a financial institution, totaling 6,829 people. The survey obtained 712 valid and complete responses, corresponding to 10.43% of the investigated population. This number is within the minimum required for PLS-SEM analysis (Wong, 2013). For the number of estimated parameters, the sample is considered sufficient according to Hair *et al.* (2005), who suggest a minimum of five cases per estimated parameter, i.e., 43x5: 215, and this sample has about 17 cases per parameter. This number is adequate when compared to other recent and significant works dealing with KM and

innovation, such as a study by Le *et al.* (2022) with 351 respondents, Sofiyabadi, Valmohammadi, and Ghadam (2022) with 237 respondents and Shahzad *et al.* (2020) with 475 respondents, the latter being the second most cited between 2020 and 2023 in the Web of Science database when researching the topics of KM and innovation together.

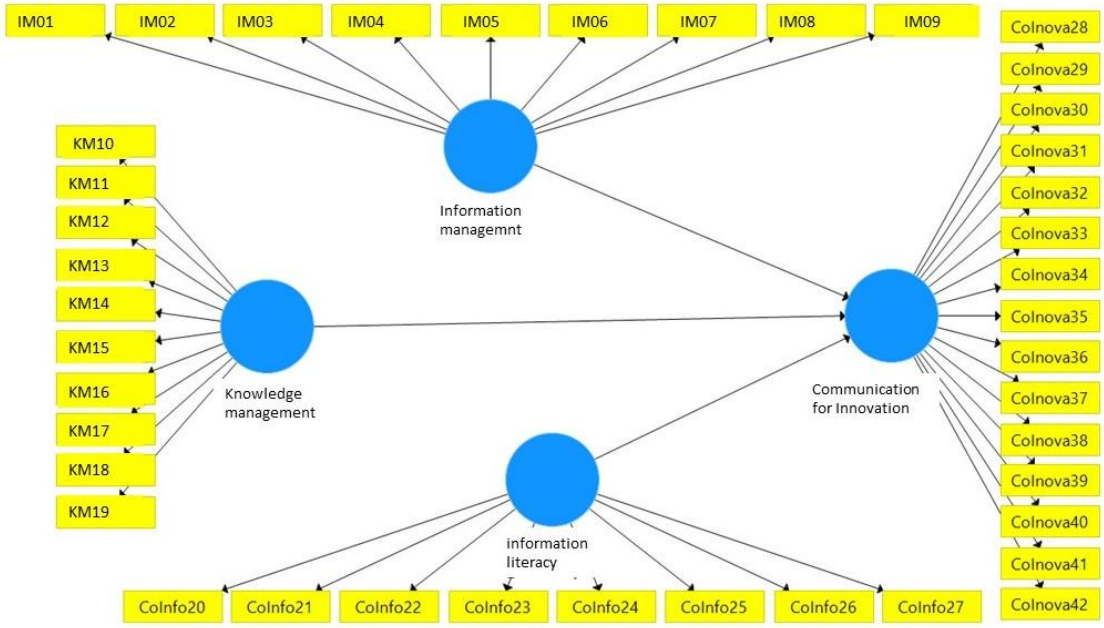
3 SURVEY RESULTS

Considering the objectives of the work, which are to evaluate the influence of information management, knowledge management, and information competence on communication for information in the context of a company in the financial services sector, psychometric scales were used to collect the perceptions of respondents regarding the constructs considered, namely IM, KM, CoInfo and Communication for Innovation.

From the answers obtained, the relationships between the variables considered in the study were tested by Structural Equation Modeling (SEM) using SmartPLS 3.0 software.

Initially, the factor loadings of each measurable variable (assertion) were analyzed concerning its respective construct. Factor loadings are the correlation of each measured variable (statement) with the related construct, indicating the correspondence between the variables and the construct. Factor loadings are the means of analyzing each variable that has a role in characterizing the construct. Higher loadings indicate that the variable is more representative of the construct (Hair *et al.*, 2009). In other words, it is verified whether each statement related to the themes treated (IM, KM, CoInfo, and Communication for Innovation) are representative of these themes, are related to them. Next, we have the initial theoretical model (Figure 2), which consists of nine statements related to IM, ten statements related to KM, eight statements related to CoInfo, and 15 statements related to Communication for Innovation, in which the validity of the factor loadings of each measurable variable (assertion) concerning its respective construct was analyzed.

Figure 2 - Initial theoretical model



Source: Elaborated by the authors (2023)

During this analysis, the phrases of the questionnaire that did not present minimum adherence for the adjustment of the theoretical model were discarded (in the final model, IM has seven statements, KM has five, CoInfo has four, and Communication for Innovation has 12 statements). This analysis is called factorial validity, and as it is closely related to the metrics subsequently evaluated, the following results corroborate the factorial validity of the scales.

Subsequently, the scales used were evaluated for reliability (Cronbach's alpha and composite reliability), Convergent Validity (AVE), and Discriminant Validity (cross-loading and HTMT). These procedures allow for verifying the reliability (the statements of each construct are related to each other) and validity (the statements are linked to their specific constructs and not to others) of the collection instruments used. This action is recommended to ensure that the measurement instruments (scales) are reliable and valid, as they indirectly measure a latent variable (construct). It is always necessary to check their adjustment (HAIR *et al.*, 2009); for example, the statements used to analyze KM refer only to KM and are not related to CoInfo.

Table I summarizes the convergent validity (AVE) metrics and the reliability of the scales used for data collection. They all presented parameters

considered appropriate, as indicated in the literature (AVE 0.5; Cronbach's alpha 0.7; CR 0.7) (Byrne, 2010; Hair *et al.*, 2009; Marôco, 2014).

Table I - Convergent validity (AVE) and reliability (alpha and CR) of the scales

	Cronbach's alpha ()	Composite Reliability (CR)	Average Variance Extracted (AVE)
Information Competence	0.833	0.889	0.669
Communication for Innovation	0.939	0.947	0.601
Knowledge Management	0.874	0.909	0.667
Information Management	0.864	0.896	0.551

Source: Elaborated by the authors (2023)

After these analyses, we proceeded to verify the discriminant validity of the scales using the cross-loading (Hair *et al.*, 2009; Hair *et al.*, 2014) and heterotrait-monotrait ratio (HTMT) techniques (Henseler; Ringle; Sarstedt, 2015), the first using the values of the factor loadings in the constructs under study and the second using the correlations between the statements used in the questionnaire.

As mentioned, factor loadings correlate each measured variable (statement) with the related construct, indicating the correspondence between the variables and the construct (Hair *et al.*, 2009). However, the same assertion may be linked to two different constructs, requiring the evaluation of cross-loading, which indicates whether each assertion is associated with only one construct or whether it presents significant factor loadings linked to a construct different from that expected when building the theoretical model (Hair *et al.*, 2009; Hair *et al.*, 2014).

Although the analysis has a qualitative characteristic (alignment of each statement to its respective construct), it also has a quantitative aspect (value of the factor load of a statement in each construct), contributing to the analysis's reliability.

As shown in Table II, the loadings of the items that did not need to be discarded for not presenting factorial validity are aligned with the constructs as expected, as recommended by Hair, Ringle, and Sarstedt (2011). In this analysis, in addition to confirming the discriminant validity of the scales, there is also corroboration of their factorial validity (Ringle; Da Silva; Bido, 2014). In the following table, it is possible to observe, according to the factor loading, that the

statements are related to the variable they intend to measure.

Table II - Cross-loading - factor loadings of measurable variables (statements) in their respective constructs

	Information Competence	Communication for Innovation	Knowledge Management	Information Management
CoInfo20	**0.726**	0.547	0.525	0.544
CoInfo21	**0.860**	0.595	0.582	0.591
CoInfo22	**0.882**	0.615	0.606	0.612
CoInfo23	**0.795**	0.541	0.494	0.514
CoInova28	0.640	**0.776**	0.632	0.628
CoInova29	0.610	**0.783**	0.658	0.616
CoInova30	0.543	**0.775**	0.625	0.560
CoInova31	0.524	**0.755**	0.617	0.559
CoInova32	0.542	**0.799**	0.605	0.567
CoInova33	0.564	**0.741**	0.612	0.564
CoInova35	0.523	**0.810**	0.643	0.586
CoInova36	0.543	**0.765**	0.565	0.576
CoInova37	0.520	**0.794**	0.589	0.567
CoInova38	0.485	**0.757**	0.608	0.534
CoInova39	0.526	**0.807**	0.673	0.583
CoInova40	0.511	**0.732**	0.609	0.519
KM11	0.516	0.682	**0.758**	0.562
KM13	0.541	0.662	**0.818**	0.676
KM15	0.586	0.657	**0.815**	0.702
KM17	0.562	0.638	**0.841**	0.636
KM18	0.554	0.620	**0.847**	0.622
IM02	0.639	0.591	0.603	**0.713**
IM03	0.438	0.446	0.547	**0.702**
IM04	0.527	0.557	0.602	**0.791**
IM05	0.483	0.533	0.546	**0.758**
IM07	0.500	0.593	0.588	**0.721**
IM08	0.494	0.573	0.587	**0.744**
IM09	0.495	0.515	0.593	**0.761**

Source: Elaborated by the authors (2023)

For the HTMT test, the correlations of measurable variables (statements) measuring the same construct and the correlation of measurable variables (statements) between constructs measuring different phenomena are considered. Calculations involving the average of these correlations lead to the final HTMT index, which should be less than or equal to 0.90 (Henseler; Ringle;

Sarstedt, 2015). Table III shows that the scales used in this study meet the recommended values for this test.

Table III - Discriminant validity of the scales (HTMT test)

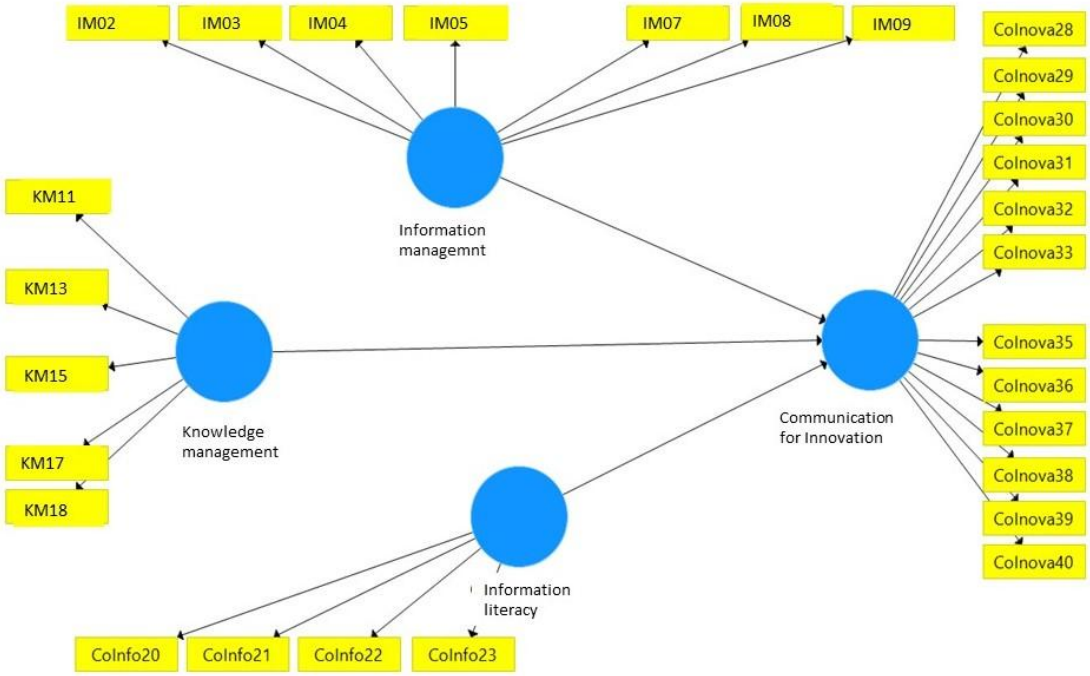
	1	2	3
1. Information Competence			
2. Communication for Innovation	0.795		
3. Knowledge Management	0.792	0.881	
4. Information Management	0.811	0.813	0.900

Source: Elaborated by the authors (2023)

At the end of this stage, all parameters (reliability, convergent validity, and discriminant validity) obtained satisfactory indices, indicating that the scales used were adequate to measure the constructs considered in the study.

After the analyses that proved that the scales used were valid and reliable, we evaluated the theoretical model (Figure 3), verifying the statistical significance of the relationships between the constructs involved.

Figure 3 - Final theoretical model



Source: Elaborated by the authors (2023)

Table IV shows the results of the theoretical model proposed and presented in Figure three, with the estimated path coefficients and the t and p values associated with each path, indicating which paths are significant (t > 1.96,

p < 0.05), with 95% confidence.

As can be seen, all paths were significant for the proposed theoretical model, indicating that Information Competence, Knowledge Management, and Information Management positively affect Communication for Innovation, which supports all the hypotheses proposed for the work. In particular, the relationship between Knowledge Management Communication for Innovation is the most intense among the three analyzed.

Table IV - Theoretical model - path coefficients and respective statistical significance

	Path coefficient	Standard error	T-value	P-value
CoInfo --> Communication for Innovation	0.243	0.032	7.513	<0.001
KM --> Communication for Innovation	0.491	0.038	12.975	<0.001
IM --> Communication for Innovation	0.185	0.044	4.238	<0.001

Source: Elaborated by the authors (2023)

As the PLS-SEM method works as a series of regression analyses acting concomitantly, there is always the risk of multicollinearity, which would impair the analysis of the quality of the path coefficients found. Thus, an analysis was performed to eliminate this potential risk, with satisfactory results and VIF values below 3, meeting the recommendations in the literature (Hair *et al.*, 2009) and presented in Table V.

Table V - Multicollinearity analysis (VIF)

	Communication for Innovation
Information Competence	2.111
Communication for Innovation	
Knowledge Management	2.855
Information Management	2.977

Source: Elaborated by the authors (2023)

After ensuring the absence of multicollinearity that would compromise the results found, the coefficient of determination (R2adjusted) of Communication for Innovation was calculated in order to know the level of explanation of the variance of this variable as a function of the variance of the independent variables of the model (Information Competence, Knowledge Management, and Information Management). The result found for the adjusted R2 was 0.700, indicating that the

explanatory power of the proposed model is 70%, a value considered high by the literature (Ringle; Da Silva; Bido, 2014).

Finally, each independent variable's effect size (f2) on the dependent variable was analyzed. Although the effect size refers to the phenomenon being analyzed and not the quality of the analysis, the literature says that the effect size assesses how useful each construct is for the model fit (Ringle; Da Silva; Bido, 2014). Table VI shows the effect size of each independent variable on the dependent variable.

Table VI - Effect size (f2)

	Communication for Innovation
Information Competence	0.094
Communication for Innovation	
Knowledge Management	0.283
Information Management	0.038

Source: Elaborated by the authors (2023)

As can be seen, as with the path coefficients, Knowledge Management is the most crucial variable and has a medium to significant effect on Communication for Innovation ($0.15 < f2 < 0.35$), with Information Competence and Information Management having small to medium effects ($0.02 < f2 < 0.15$) (Ringle; Da Silva; Bido, 2014).

When comparing the hypotheses investigated with the results obtained, all hypotheses were confirmed. These are:

H1: Information management contributes to Communication for Innovation in a service sector company.

Hypothesis 1 was confirmed, IM contributes to Communication for Innovation in the context studied with a positive effect between small and medium (0.038), being, among the variables, the one that has the lowest effect on Communication for Innovation. This result may indicate the need for investments by the organization in KM since, as demonstrated by the literature in the area and the results obtained, KM contributes to Communication for Innovation, and this effect can be amplified.

H2: Knowledge management contributes to Communication for Innovation in a service sector company.

Hypothesis 2 was confirmed, KM contributes to Communication for Innovation in the context studied with a positive effect between medium and large (0.283), being, among the variables, the one with the most significant positive effect on Communication for Innovation. This result reflects the organization's continuous investments in knowledge building, primarily through a corporate university awarded as the best in the world in recent years.

H3: Information Competence contributes to Communication for Innovation in a service sector company.

Hypothesis 3 was also confirmed, CoInfo contributes positively to Communication for Innovation in the context of this study. CoInfo has a small to medium effect (0.094) on Communication for Innovation. This result shows that actions to improve information competence can enhance Communication for Innovation.

4 FURTHER DISCUSSION AND RESEARCH

Through quantitative study, it was possible to confirm the three hypotheses raised at the beginning of this research that investigated the relationship between IM, KM, and CoInfo with Communication for Innovation in the context of a financial services company. Thus, it was observed, concerning the hypotheses:

1. the positive relationship of effect between small and medium between IM and Communication for Innovation;
2. the positive relationship of effect between small and medium between CoInfo and Communication for Innovation;
3. the positive relationship between medium and large effect between KM and Communication for Innovation.

The results indicate that the organization's efforts in KM have produced a more significant effect in promoting innovation communication than IM and CoInfo. CoInfo has a more significant effect on Communication for Innovation compared to IM, and the effect of IM, although positive, was the smallest compared to the other items. Although studies on information competence have emphasized the context of libraries and schools, they show that people with greater information competence can achieve innovation actively and efficiently

and can critically use the resources of the environment to produce more innovative results (Sun *et al.*, 2022). In the organizational environment, like the present study, we have a study by Ahmada, Widénb, and Huvilac (2020) that shows the positive impact of CoInfo on innovation processes. However, the research is restricted to the informational competence of leaders and in the context of small and medium enterprises.

The results indicate that the organization can achieve better results in innovation communication if it invests in actions that improve its IM. Improving its IM processes may also increase the effects of CoInfo on innovation communication since essential aspects of CoInfo were described as complex and time-consuming, based on IM failures, such as locating information for use in problem-solving. Investing in improving IM may also make significant gains in CoInfo, enabling greater effects of the two variables on Communication for Innovation.

KM presents itself as the variable that contributes most to Communication for Innovation. This positive relationship was also found in works by Donate and Guadamillas (2015) and Sofiyabadi, Valmohammadi, and Ghadam (2022), and studies such as Gonzalez-Ramos, Guadamillas, and Donate, (2023) show the positive relationship in KM and innovation, mediated by aspects involving corporate social responsibility. The study by Pacheco and Paul (2023) shows that innovation depends on knowledge and how organizations manage it; in this way, innovation decreases as knowledge creation and sharing decrease with fewer social interactions. This should be an aspect to be considered in the post-pandemic context with the expansion of remote work in the investigated sector, promoting the interaction of people even remotely since the more significant human-technology interaction and the decrease in social relations reduces the creation and sharing of knowledge and potentially decreases innovation and learning (Pacheco; Paul, 2023). The absence of a KM framework that oversees social aspects makes it difficult for firms to manage knowledge for innovation. Intensified knowledge exchange interactions between employees of the same company and with external stakeholders can improve the innovation process (Lopez; Esteves, 2013). Thus Gonzalez-Ramos, Donate, and Guadamillas

(2023) indicate the advantages of following specific investment paths in KM initiatives for improving innovation capacity.

KM processes participate in all types of innovation and play an essential role in an innovative organization, particularly in knowledge sharing (Areed *et al.*, 2021).

Knowledge exploitation and retention are vital elements to improve innovative performance and suggest the importance of adopting knowledge management practices that stimulate creativity and flexibility (Scaliza *et al.*, 2022).

Even showing promising results on Communication for Innovation, actions that seek to develop opportunities to practice the knowledge acquired through knowledge acquisition and sharing actions can amplify the effects of KM on Communication for Innovation.

5 CONCLUSION

The results showed that, in the researched context, KM was the most important variable, with a medium to significant effect on Communication for Innovation. CoInfo and IM presented small to medium effects on Communication for Innovation.

With the results obtained, the study brings to the scientific community and the leaders and professionals of the organizations the analysis of how the themes IM, KM, CoInfo, and Communication for Innovation are related in the context of a financial services company, contributing to a greater understanding of the themes and their relationships in a specific context. By using the quantitative nature, the work brought the possibility of analyzing, from the questionnaire data, the most essential variables to be worked on by organizations to have better performance in Communication for Innovation through IM, KM, and CoInfo actions.

Subjects competent in information transform information into knowledge and share it through communication, enabling innovation, an essential element for the survival of organizations in a constantly changing market. Using organizational people's information, knowledge, and information competence to develop Communication for Innovation is extremely relevant for all sectors,

including the financial sector investigated in this research.

It is possible to note the need for analysis and change in the IM processes in order to facilitate the access and interaction of people with the existing information stored in the organization's information systems, which will increase the positive effect of information competence, as there will be a reduction in efforts required for access and acquisition of information, improving communication and enhancing the generation of innovation. Information competence can be increased by facilitating people's access and interaction with information, encouraging routine changes, aiming for greater autonomy, and valuing teams to develop innovation projects.

Considering the positive relationships concerning KM, IM, and CoInfo to develop innovation-oriented communication identified in the work, organizations can exploit these processes to anticipate or respond flexibly and quickly to market changes and the constant need for innovation in their processes and products. The results obtained refer to a temporal space within the context of an organization, investigating its strategic level, using a quantitative approach without the intention of generalization, and presenting temporal and context limitations.

The study presents the analysis of the relationship between IM, KM, and CoInfo with Communication for Innovation, bringing the scientific community the relationship between the themes not yet studied in the context of a large company in the financial services sector and at a strategic level. The literature shows that KM, IM, and CoInfo can assist in communication processes for innovation, which was confirmed in this work. Thus, targeted investment in IM, KM, and CoInfo aimed at efficient Communication for Innovation has the potential to change the organization's routines, processes, environment, and culture.

The study contributes to the area of Information Science and organizational management since it investigated the themes of KM, IM, CoInfo, and Communication for Innovation at the strategic level of a large financial company, thus shedding light on the positive effects of IM, KM, and CoInfo on Communication for Innovation and providing organizations with subsidies for resource allocation decisions aimed at innovation.

In the social sphere, by demonstrating the importance and influence of the topics IM, KM, and CoInfo for the construction and communication focused on innovation, the work points to the study of these topics in technical and vocational courses, undergraduate courses in different areas, such as Communication, Administration and Production Engineering, as well as postgraduate courses in these areas and Human Resources and Leadership, which will promote more excellent training of individuals for the use and transformation of information into knowledge and greater awareness of the potential of information, knowledge, and communication.

n the economic sphere, the work has the potential, by elucidating the relationship between the themes studied, to indicate to organizations (for-profit and non-profit) where and how to invest their resources to generate innovation through communication aimed at this purpose, optimizing their financial resources.

Further research is suggested to address the same relationships studied longitudinally to evaluate the results of organizations that invest to be more innovative.

REFERENCES

AHMAD, F., WIDÉN, G.; HUVIL, I. The impact of workplace information literacy on organizational innovation: An empirical study. **International Journal of Information Management***,* [*S.l.*], v. 51, p. 1-12, 2020.

ANDREEVA, T.; KIANTO, A. Knowledge processes, knowledge-intensity and innovation: a moderated mediation analysis. **Journal of Knowledge Management***,* [*S.l.*], v. 15, n 6, pp.1016-1034, 2011.

AREED, S., SALLOUM, S.A., SHAALAN, K. The Role of Knowledge Management Processes for Enhancing and Supporting Innovative Organizations: A Systematic Review. *In:* AL-EMRAN, M., SHAALAN, K., HASSANIEN, A. (ed.) **Recent Advances in Intelligent Systems and Smart Applications.** Studies in Systems, Decision and Control, v. 295. Springer,2021.

BELLUZZO, R. C. B. A competência em informação no Brasil: cenários e espectros. São Paulo: ABECIN Editora, 2018.

BELLUZZO, R. C. B., KOBAYASHI, M. C. M.; FERES, G. G. Information literacy: um indicador de competência para a formação permanente de

professores na sociedade do conhecimento. **ETD - Educação Temática Digital**, Campinas, v. 6, n. 1, p. 81-99, Disponível em: https://periodicos.sbu.unicamp.br/ojs/index.php/etd/article/view/1004. Acesso em: 12 fev. 2019.

BUENECHEA-ELBERDIN, M., SÁENZ, J.; KIANTO, A. Knowledge management strategies, intellectual capital, and innovation performance: a comparison between high- and low-tech firms. **Journal of Knowledge Management,** [*S.l.*], v. 22, n. 8, p.1757-1781, 2018.

BYRNE, B. M. **Structural Equation Modeling with AMOS:** basic concepts, applications, and programming. 2. ed. New York: Routledge, 2010.

CABRILO, S.; DAHMS, S. How strategic knowledge management drives intellectual capital to superior innovation and market performance. **Journal of Knowledge Management**, [*S.l.*], v. 22, n. 3, p.621-648, 2017.

CHOO, C.W. **A organização do conhecimento: como as organizações usam a informação para criar significado, construir conhecimento e tomar decisões**. 2.ed. São Paulo: Senac São Paulo, 2006.

DEL MASSA, H. C. O., DAMIAN, I. P. M.; VALENTIM, M. L. P. Competência em Informação no apoio à Gestão do Conhecimento, **Informação & Sociedade: Estudos**, João Pessoa, v. 28, n.1, p. 257-267, 2018.

DING, W., CHOI, E.; AOYAMA, A. Relational study of wise (phronetic) leadership, knowledge management capability, and innovation performance, **Asia Pacific Management Review**, [*S.l.*], v. 24, p.310-317, 2019.

DONATE, M. J.; GUADAMILLAS, F. An empirical study on the relationships between knowledge management, knowledge-oriented human resource practices and innovation, **Knowledge Management Research & Practice,** [*S.l.*], v. 13, n. 2, p. 134–148, 2015.

DONATE, M. J.; SÁNCHEZ DE PABLO, J. D. The role of knowledge-oriented leadership in knowledge management practices and innovation, **Journal of Business Research**, [*S.l.*], v. 68, p. 360–370, 2015.

FAN, W.; YAN, Z. Factors affecting response rates of the web survey: A systematic review, **Computers in Human Behavior**, [*S.l.*], n. 26, p.132–139, 2010.

FORZA, C. Survey researchin operations management: a process-based perspective, **International Journal of Operations & Production Management,** [*S.l.*], v. 22, n. 2, p. 152-194, 2002.

GOMES, H. F. A interligação entre Comunicação e Informação, **DataGramaZero - Revista de Ciência da Informação,** Rio de Janeiro, v. 11, n. 3, 2010.

GONZALEZ-RAMOS, M. I., GUADAMILLAS, F. A.; DONATE, M. J. The relationship between knowledge management strategies and corporate social responsibility: Effects on innovation capabilities, **Technological Forecasting & Social Change**, [*S.l.*], v. 188, p. 1-11, 2023.

GONZALEZ-RAMOS, M. I.; DONATE, M. J.; GUADAMILLAS, F. A. The interplay between corporate social responsibility and knowledge management strategies for innovation capability development in dynamic environments, **Journal of knowledge management**, [*S.l.*], v. 27, n. 11, p. 59-81, 2023.

GOSLING, M.; GONÇALVES, C. A. Modelagem por equações estruturais: conceitos e aplicações. **Revista de Administração FACES Journal**, [*S.l.*], v. 2, n. 2, p. 83-95, 2003.

HAIR JR., F., BABIN, B. J.; MONEY, A. H., SAMOEL, P. **Fundamentos de métodos de pesquisa em administração.** Porto Alegre: Bookman, 2005.

HAIR JR., F., BLACK, W. C., BABIN, B. J.; ANDERSON, R. E. **Análise multivariada de dados.** 6. ed. Porto Alegre: Bookman, 2009.

HAIR JR., F., RINGLE, C. M.; SARSTEDT, M. PLS-SEM: Indeed a Silver Bullet, **The Journal of Marketing Theory and Practice***,* [*S.l.*], v. 19, n. 2, p.139–152, 2011.

HAIR JR. F., HULT, G. T. M., RINGLE, C.; SARSTEDT, M. **A primer on partial least squares structural equation modeling (PLS-SEM)***.* Thousand Oaks: Sage, 2014.

HENSELER, J., RINGLE, C. M.; SARSTEDT, M. A new criterion for assessing discriminant validity in variance-based structural equation modeling, **Journal of the Academy of Marketing Science,** [*S.l.*]*,* v. 43, n. 1, p. 115–135, 2015.

ISMAIL, I. R., HAMID, R. A.; IDRIS, F. PLS application in Journals of Operations Management: a review, *In:* Global Conference on Operations and Supply Chain Management, p. 1-6, 2012.

JIMÉNEZ-JIMÉNEZ, D.; SANZ-VALLE, R. Innovation, organizational learning, and performance", **Journal of Business Research***,* [*S.l.*], v. 64, p. 408–417, 2011.

KLEM, L. Path analysis. *In*: GRIMM, L. G.; YARNOLD, P. R. (ed.) **Reading and understanding multivariate statistics***.* Washington: American Psychological Association, 1995.

KOOHANG, A., PALISZKIEWICZ, J.; GOLUCHOWSKI, J. The impact of leadership on trust, knowledge management, and organizational performance: A research model, **Industrial Management & Data Systems,** [*S.l.*], v. 117, n. 3, p. 521-537, 2017.

KPMG GLOBAL ORGANISATION. **30 Voices on 2030**: The New Reality for Financial Services. [*S.l.*]: KPMG, 2021.

LE, P.B.; TRAN, D.T.; PHUNG, T.M.T.; VU, K.D. Leadership and knowledge management practices for frugal innovation of firms in the emerging market: moderating role of collaborative culture, Asia-Pacific Journal of Business Administration, [*S.l.*], v. 16, n. 3, p. 637-654, 2022.

LOPEZ, V. W. B.; ESTEVES, J. Acquiring external knowledge to avoid wheel reinvention, **Journal of Knowledge Management,** [*S.l.*], v. 17, n. 1, p. 87–105, 2013.

MACHADO, D. D. P. N., LEHMANN, C. A.; ARAUJO, B. Organização e cultura de inovação: elementos concretos e fatores percebidos, **Revista Alcance**, [*S.l.*], v. 15, n. 2, p.152-168, 2008.

MARÔCO, J. **Análise de Equações Estruturais***:* Fundamentos teóricos, software e aplicações. 2 ed. Pêro Pinheiro: ReportNumber, 2014.

MUHAMMED, S.; ZAIM, H. Peer knowledge sharing and organizational performance: the role of leadership support and knowledge management success, **Journal of Knowledge Management***,* [*S.l.*], v. 24, n. 10, p. 2455-2489, 2020.

OTTONICAR, S. L. C., FERES, G. G.; VALENTIM, M. L. P. Competência em informação no contexto de organizações competitivas, *In:* BELLUZZO, R.C. B.; ALMEIDA, D. P. R. (Ed.) **Conhecimento, pessoas e aprendizagem organizacional sob a ótica da competência em informação**: uma nova lógica de gestão. MMH Informação: Bauru, 2017.

PACHECO, C.; PAUL, B. Applying complexity theory perspective to knowledge management in the innovation contexto, **VINE Journal of Information and Knowledge Management Systems,** [*S.l.*]*,* 2023.

PÉREZ-MONTORO, M.; GUTIÉRREZ, M. **Gestión del conocimiento en las organizaciones.** Gijón: Tréa, 2008.

PORÉM, M. E.; GUARALDO, T. S. B. Informação, conhecimento e comunicação em organizações do conhecimento, **DataGramaZero - Revista de Informação**, Rio de Janeiro, v.13, n. 1, 2012.

RINGLE, C. M., DA SILVA, D.; BIDO, D. D. S. Modelagem de equações estruturais com utilização do SmartPLS, **Revista Brasileira de Marketing,** São Paulo, v. 13, n. 02, p. 56–73, 2014.

SANTOS, V. C. B, SANTOS, C. A, YAFUSHI, C. A. P.; BELLUZZO, R. C. B. A comunicação, a cultura organizacional e a competência em informação nas organizações sob o prisma das reflexões contemporâneas, **Brazilian Journal of Development,** [*S.l.*], v. 5, n. 3, p. 2366-2386, 2019.

SCALIZA, J. A. A., JUGEND, D., JABBOUR, C. J. C., LATAN, H., ARMELLINI, F., TWIGG, D., & ANDRADE, D. F. Relationships among organizational culture, open innovation, innovative ecosystems, and performance of firms: Evidence from an emerging economy context. **Journal of Business Research**, *[S.l.],*v. 140, p. 264-279, 2022.

SHAHZAD, M.; QU, Y.; ZAFAR, A. U.; REHMAN, S. U.; ISLAM, T. Exploring the influence of knowledge management process on corporate sustainable performance through green innovation, **Journal of Knowledge Management***,* [*S.l.*], v. 24, n. 9, p. 2079-2106, 2020.

SOFIYABADI, J., VALMOHAMMADI, C.; GHADAM, A. S. Impact of Knowledge Management Practices on Innovation Performance, **IEEE Transactions on Engineering Management**, [*S.l.*], v. 69, n. 6, p. 3225 -3239, 2022.

SUN, C.; LIU, J.; RAZMERITA, L.; XU, Y.; QI, J. Higher Education to Support Sustainable Development: The Influence of Information Literacy and Online Learning Process on Chinese Postgraduates Innovation Performance, **Sustainability**, [*S.l.*], v. 14, p. 77-89, 2022.

VALENTIM, M. L. P. Gestão da informação e gestão do conhecimento em ambientes organizacionais: Conceitos e compreensões, *Tendências da* **Pesquisa Brasileira em Ciência da Informação,** João Pessoa, v. 1, n. 1, p. 1-16, 2008.

VALENTIM, M. L. P., JORGE, C. F. B.; CERETTA-SORIA, M. G. Contribuição da competência em informação para os processos de Gestão da Informação e do Conhecimento, **Em Questão,** Porto Alegre, v. 20, n. 2, 2014.

VALENTIM, M. L. P.; SOUZA, J. S. F. Fluxos de informação que subsidiam o processo de inteligência competitiva, **Encontros Bibli**: revista eletrônica de biblioteconomia e ciência da informação*,* Florianópolis, v. 18, n. 38, p. 87-106, 2013.

WERUTSKY, V. D'B. G. **Método de análise da comunicação organizacional no contexto da gestão da inovação em empresas do setor de energia elétrica do Brasil e da França.** Tese (Doutorado) - Universidade Federal de Santa Catarina, Centro Tecnológico, Programa de Pós-Graduação em Engenharia de Produção, Florianópolis, 2016.

WOLOR, C. W.; SOLIKHAH, S; FIDHYALLAH, N. F.; LESTARI, D. P. Effectiveness of E-Training, E-Leadership, and Work Life Balance on Employee Performance during COVID-19*,* **Journal of Asian Finance, Economics and Business,** [*S.l.*], v. 7, n.10, p. 443–450, 2020.

WONG, K. K.K. Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS, **Marketing Bulletin,** [*S.l.*], v. 24, n. 1, p. 1–32, 2013.

RELAÇÃO ENTRE GESTÃO DA INFORMAÇÃO, GESTÃO DO CONHECIMENTO E COMPETÊNCIA EM INFORMAÇÃO COM A COMUNICAÇÃO PARA INOVAÇÃO

RESUMO
Objetivo: Identificar a relação entre Gestão da informação, Gestão do conhecimento e competência em informação e a comunicação voltada à inovação no contexto de uma empresa de serviços financeiros. **Metodologia:** Utilizou-se do método Survey, com uso de questionário autoadministrado, enviado por e-mail corporativo. Os dados de 712 respostas foram analisados por meio de Modelagem de Equações Estruturais. **Resultados:** No contexto estudado, gestão da informação, gestão do conhecimento e competência em informação se relacionam positivamente com a comunicação voltada à inovação, sendo que gestão do conhecimento tem maior influência com comunicação para a inovação e gestão da informação apresenta a menor influência. **Implicações práticas:** Ao identificar aspectos que influenciam a comunicação para a inovação, as organizações podem alocar, de forma mais eficiente, seus recursos para promover a inovação. **Originalidade e valor:** Ao investigar, de forma quantitativa, a relação entre os temas, o artigo contribui com a literatura da área de Administração e Ciência da informação, visto que artigos que apresentem tal relação não foram identificados na literatura, em especial no contexto de organizações financeiras de economias emergentes.

Descritores: Gestão da informação. Gestão do conhecimento. Competência em informação. Comunicação. Inovação.

RELACIÓN ENTRE GESTIÓN DE LA INFORMACIÓN, GESTIÓN DEL CONOCIMIENTO Y COMPETENCIA EN INFORMACIÓN CON COMUNICACIÓN PARA LA INNOVACIÓN

RESUMEN
Objetivo: Identificar la relación entre la gestión de la información, la gestión del conocimiento y la competencia en información y comunicación orientada a la innovación en el contexto de una empresa de servicios financieros. **Metodología:** Se utilizó el método de Encuesta, mediante un cuestionario autoadministrado, enviado por correo electrónico corporativo. Los datos de 712 respuestas se analizaron mediante modelos de ecuaciones estructurales. **Resultados:** En el contexto estudiado, la gestión de la información, la gestión del conocimiento y la competencia en información se relacionan positivamente con la comunicación orientada a la innovación, siendo la gestión del conocimiento la que tiene mayor influencia en la comunicación para la innovación y la gestión de la información la que tiene la menor influencia. **Implicaciones prácticas:** Al identificar aspectos que influyen en la comunicación para la innovación, las organizaciones pueden asignar de manera más eficiente sus recursos para promover la innovación. **Originalidad y valor:** Al investigar, de manera cuantitativa, la relación entre temas, el artículo contribuye a la literatura en el área de Administración y Ciencias de la

Información, ya que no se han identificado en la literatura artículos que presenten dicha relación, especialmente en el contexto de organizaciones financieras de economías emergentes.

Descriptores: Gestión de la información. Conocimiento administrativo. Competencia informativa. Comunicación. Innovación.

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