ACHIEVING HIGH STANDARDS IN ECONOMY AND MANAGEMENT RESEARCH: THE CONTRIBUTION OF FORMAL AND INFORMAL NETWORKS

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Abstract

This paper empirically examined the role of formal and informal networks in building innovation attitudes and an environment for conducting quality research in economics and management in Bulgarian universities. It highlighted some of the key issues not yet explored in the academic literature – the behavioral attitudes and expectations of researchers towards the institutional environment in universities, and the extent to which it was supportive for the development of quality research. An empirical study was conducted with 74 respondents from Bulgarian universities working in the field of economics and management. The analysis of the results showed that respondents appreciated the perceived support from the organization they worked in. Support aimed at stimulating innovative environments for conducting innovative research in economics and management was also highly valued. Two of the research hypotheses were not supported: 1) that informal relationships were more important than formal relationships and 2) that having support from the immediate supervisor stimulated innovative behavior. On this basis, insights were derived in the discussion of the empirical results. The contribution of the publication is in the interdisciplinary approach where behavioral science was linked to network theory. The aim was to discover and identify more clearly those behavioral motivations and constraints that, analyzed through the lens of network theory, provided tools to improve collaboration in research organizations and universities.

Key words: formal and informal networks, proactive research management, academic innovative environment

INTRODUCTION

The development of innovation has been part of the universities' mission, and one of the most topical areas in the HEI's policies. Stimulating breakthrough research requires a supportive organizational environment for innovation and building a culture that encourages appropriate researcher behavior.

The research process is a collective effort, especially when it involves complex and interdisciplinary work, and requires effective communication between different units to create an environment for knowledge sharing. Organizational theory viewed this as building a good meta-contingent relationship [8], i.e., as an organizational design that facilitated knowledge transfer within and across units and organizations [1]. Network theory extended the understanding of the role of communications and developed ideas about formal and informal networks in the innovation process. While formal relationships were confined within certain boundaries regulated by rules and procedures, informal ones crossed the delineated boundaries and expanded the field of relationships between professionals in search of new knowledge. This complementary role of the two sets of communications, which had different potentials, deserved more attention when designing university policies related to innovation interventions in research.

To explore the role of formal and informal networks in fostering innovative attitudes and an environment conducive to quality research in economics and management, this paper highlighted some of the key issues not yet explored in the research literature – the behavioral attitudes and expectations of researchers towards the institutional environment in universities, and the extent to

which it was supportive of the development of high-quality research. The study was limited to the research environment in Bulgarian HEIs, which had been carrying out training and research in economics and management. There were several reasons for narrowing the scope of the study:

1)The topic of behavioral attitudes of lecturers in Bulgarian universities had been sidelined from the attention of researchers. It was an object of study in policy development, but the research did not sufficiently extend beyond the general analyses of the higher education system in strategic documents.

2)There were some differences in policies to stimulate research in different scientific fields. Priority was given to the natural sciences, that made a visible contribution in improving the quality of people's lives and were at the forefront of research. This could be seen both in the results achieved (number of publications, number of patents), and in the funds allocated for their development in national programs. However, when considering the social aspects of development, the contribution of the social sciences was equally indispensable. At the same time, they remained underfunded and were underperforming in terms of scientific output in Bulgaria.

The crucial moment here was access to knowledge in a wider research network that went beyond traditional organizational constraints and required a combination of formal and informal communication approaches.

3) The importance of formal and informal networks in the development of innovation varied across the research topics. In the natural sciences, formal networks could be complemented by informal ones in the initial stages of research but required the presence of formal structures later, e.g., to comply with technical standards in testing [25].

In contrast, social research has been characterized by observational errors, considerable uncertainty, and little agreement on decisions. There, contact with stakeholders could validate results better than trials in a laboratory, and communication with stakeholders therefore became key to confirm or reject hypotheses.

These features provoked the authors to conduct an empirical study of a systematically neglected aspect of research management – the extent to which the organizational structure was adequate to the communication needs of researchers working in economics and management in Bulgarian universities.

The main thesis with which we started this study was that the formal environment had its limits and couldn't cover all the knowledge needs in a scientific organization, so it needed to be complemented by informal networks, which should not be seen as an alternative to formal ones.

Literature review

Organizational development had been the subject of numerous studies since the first half of the 20th century, but research related to universities emerged after the 1970s [2] and was relatively scarce. In most cases, changes in university organizational models had been seen as part of the movement towards post-bureaucratic and neo-bureaucratic models [27], and more broadly as an attempt to bring the new public management into university governance [14] in an entrepreneurial manner. Organizational theory views universities as institutions that should be reformed for the sake of greater efficiency, but this conflicted with Humboldt's core values of freedom of inquiry [14]. A different perspective on this conflict was provided by the new institutionalists who explored the importance of culture in contemporary organization [9] and in particular the confrontation between hierarchy and individualism.

While hierarchy was associated with attitudes of a compact group (employees in an organization) to follow rules and everyone's place in this hierarchy, individualism was the opposite – weaker ties (the opposite of compactness in the hierarchy) and compliance with fewer rules [14]. The main difference between the two approaches was the attitude towards control and, respectively, trust. Hierarchical structures presumptively considered that employees should be controlled and therefore set up control units to monitor compliance with the rules.

Individualism, on the other hand, relied on fair play, a fair chance for everyone to enter the game, but also on the responsibility of everyone for their own results, including failure.

University organizational structures were prime example of the dilemma between the two poles of cultural theory. Their goals and perceived academic values required a balance between hierarchy and individualism. Modern universities were not only providers of educational services. They were parts of different research networks in the context of concepts such as the triple helix, which justified the contribution of universities to local development in collaboration with government and business, and the quadruple helix model of innovation, where civil society was included in the model alongside the three actors [11].

The strategic goals of modern universities were aimed at being an equal and even leading partner in broad cooperation with business, public authorities and civil society in the implementation of supra-institutional development strategies and programs. This is why most universities were developing hybrid forms of organizational structures, combining networks and leadership on the one hand, with hierarchical control and accountability [16] on the other. Sometimes, even within the same organization, project planning combined with cross-functional integrative teams took place, leading to parallel and temporary hierarchical structures [7].

These hybrid organizational forms of governance that blend hierarchy and individualism resonated in a huge variety of communication patterns in universities that remained outside the attention of researchers.

Networks within an organization were understood as a social system that consisted of dynamic ever-changing flows of members, flows of information, and availability of social reinforcement [5]. The concept of social reinforcement was defined as "the situation in which an individual requires multiple prompts from neighbors before adopting an opinion or behavior" [30].

Studying social groups in an organization through the lens of network analysis could provide an explanation why one group (cluster) was more interconnected than other groups [19] and how it evolved over time.

Formal network structure referred to rules, processes, roles, and responsibilities, while informal structure described the social network in terms of recurring patterns of any interactions or instrumental and emotional relationships [24].

Since formal organization and ranks in the hierarchy affected the communication network in an organization [24], based on the tracking of formal and informal communications, a conclusion could be drawn about how adequate the organizational structure was to the communication needs of researchers in a university.

In the research literature, barriers between different research units were viewed as functional obstacles or silos [12]. The idea was that clustering, or the presence of isolated groups (researchers, staff, etc.) that had a barrier to information exchange, suffered the negatives of poor communication when performing their functional duties. Silos (barriers) were considered part of the hierarchical management model, where units got their tasks well controlled vertically, but horizontal linkages were not addressed. In research, this could be a major problem when such functional silos limited the opportunities for collaborative complementarity between different structures of the organization.

Overcoming various silo-type barriers (budgetary, geographic, strategic, etc.) had a direct bearing on how we operationalized the concept of systems complexity. As we knew, one of the consequences/characteristics of complex systems was the emergence – of new structures, new functions, etc. This meant that we should view organizations as continuously evolving patterns of interaction. They couldn't be fully understood if they were viewed only as formal structures and processes [5].

Often the occasion for changing structures in universities were new research projects, which might provoke the creation of a new network or other type of structure – both internal and mixed, with the participation of external partners, but in any case, complementing the current organizational structure. If the two

diverged (e.g., the new one was of the self-organizing unit type or simply more flexible, while the traditional one was more hierarchical), this could create tensions in terms of rights and responsibilities and in terms of roles within the university and the project. For example, a researcher taking on administrative roles, or a university supervisor being a researcher alongside other junior colleague. These types of structural changes also could lead to changes in communication and the creation of complementary networks.

MATERIALS AND METHODS

In this study, we apply a conceptual framework based on transdisciplinary research, where we link behavioral science with network theory. The aim is to discover and identify more clearly those behavioral motivations and constraints that, when analyzed through the lens of network theory, provide tools to improve collaboration in research organizations and universities. The questionnaire included five main research topics, each of them operationalized in several questions.

1)How respondents rated the importance of formal and informal relationships in the research process. Controversy in the research literature about the importance of formal and informal communications did not give a clear preponderance to one type or the other. Opinions on the complementary nature of the two approaches in knowledge management dominated, with informal relations most often used to bridge high power distances within chains of command [18].

2)What's the opinion of the respondents regarding resource support from the organization. Resourcing for research might seem like an inappropriate subject of analysis in relation to networks, but only at first glance. Material resources were considered as non-human in networks according to Actor-network theory [29]. The concept stated that even technologies that were so commonplace that we did not even think about them could shape the decisions we made, the effects of our actions and the way we moved through the world [23]. People were not the only ones who shaped their world; material elements could also have (sometimes unexpected and unintended) effects and influences on other elements in the network, including people [29].

3)What's the respondents' opinion regarding the perceived support from colleagues and especially the direct supervisor. These questions were relevant to the concept of social capital in organizations [21], which was formed through reciprocal relationships between members [26]. Social capital supported innovative behaviors of individuals in several ways. First, good connectedness, frequency of contact with other researchers within and outside the organization, and good collegial relationships supported innovation [15]. Secondly, shared values, vision, and culture as part of social capital were also supportive factors [22]. They contributed to shaping behaviors and implementing practices valued in the college as desirable and productive.

4)What's the respondents' views on the drivers of innovative behavior. Stimulating research to create innovative products, processes required a complex of factors that at the organizational level included both the availability of adequate resources and organizational support, support from the direct supervisor.

5)What's the respondents' evaluation of the culture of building proactive behavior in academic research.

To explore the relations among the topics nine hypotheses were formulated:

H1: Informal relationships are more important than formal relationships.

H2: Perceived organizational support is based on the resourcing.

H3: Perceived organizational support is based on relationships with colleagues.

H4: Perceived organizational support is based on the relationship with the direct supervisor.

H5: Availability of adequate resources supports innovative behavior.

H6: The presence of organizational support stimulates innovative behavior.

H7: The presence of support from the line manager stimulates innovative behavior.

H8: Having an organizational culture supports innovative behavior.

H9: Organizational support is expressed in/builds a culture of proactive research management.

From the perspective of network theory, H1 examined the respondents' attitudes towards the network of researchers in the respective HEIs and, more specifically, towards those nodes in the network which, by virtue of the organizational hierarchy, should occupy a central position. The questions were aimed at exploring informal relationships with indirect supervisors.

Confirming or rejecting hypotheses H2-H4 would shed light on the research environment in the universities under study. The third and fourth hypotheses were inspired by the concept of social reinforcement [30] mentioned above, which considered the informal encouragement of colleagues, friends, and associates to certain behaviors. When everyone around was working hard on a research topic, it engaged those who were more passive in the process, created confidence, and they changed their behavior.

Confirming hypotheses H5-H8 would mean that there were so-called work process catalysts in the organization. This was a term that had emerged in the debate about management change, particularly around the ideas of post-bureaucracy, [16] neo-bureaucracy and various other hybrid forms of management [27]. The changing role of managers that provoked organizational change was associated with more expertise, consulting, partnering with, providing advice whereby hierarchical boundaries were reduced and an organizational culture was created that supports innovative behavior.

The testing of these hypotheses was done through a survey among 74 researchers, specialists in the field of economics and management, lecturers in Bulgarian HEIs that were instructing students in bachelor's and master's degrees. The analysis of the information collected by means of the survey was carried out with the tools of the statistical method [20].

In summarizing and visualizing the data, the tools of the graphical method (graphical images), grouping, statistical series and tables were used.

The data's nature (Likert scale) determined the use of summary numerical characteristics like means, ratios, shares, and indices.

Since the questions were grouped into topics with similar content, it was necessary to construct a summary indicator for each topic to represent the respondents' opinions about the topics.

The extraction of the common, unobserved content was done with the method of "principal component analysis" [20].

It reduced the dimensionality of the responses and represented the main part of the variation in a new indicator, calculated based on the respondents' answers.

Key to this was the first principal component, which contained most of the total variance of the responses.

Its calculation was done by:

$$z_{k,1} = x_k \times w_{k,1} \dots\dots\dots\dots\dots\dots\dots(1)$$

where:

$z_{k,1}$ was the first principal component (vector) for topic k;

x_k – were the respondents' answers for the questions in topic k (matrix);

$w_{k,1}$ – vector of weights for topic k.

Weights $w_{k,1}$ for the formation of the first principal component are established based on:

$$w_{k,1} = \arg \max_{\|w_k\|=1} \left\{ \sum (z_{k,1})^2_{(i)} \right\} =$$
$$= \arg \max_{\|w_k\|=1} \left\{ \sum (x_{i,k} w_k)^2 \right\} \dots\dots\dots\dots(2)$$

Table 1. Hypotheses Formalization

Hypotheses	Formal definition
H1	$\overline{z_V} > \overline{z_{IV}}$ or $\mu_V > \mu_{IV}$
H2	$r_{z_I z_{III}} > 0$
H3	$r_{z_V z_{III}} > 0$
H4	$r_{z_{IV} z_{III}} > 0$
H5	$r_{z_I z_{VI}} > 0$
H6	$r_{z_{III} z_{VI}} > 0$
H7	$r_{z_{IV} z_{VI}} > 0$
H8	$r_{z_{II} z_{VI}} > 0$
H9	$r_{z_{III} z_{II}} > 0$

where:

$\overline{z_k}$ or μ_k was the mean of the first principal component for the respective topic;

$r_{z_i z_j}$ – the correlation coefficient between the first principal components of topics i and j.

It was worth noting that for a positive semidefinite matrix the weights were equal to the corresponding eigenvector.

The hypotheses testing was realized by means of statistical methods, and the hypotheses themselves were expressed in formal way as shown in Table 1.

The first hypothesis was tested with a standard paired t-test:

$$t_{em} = \frac{\mu_V - \mu_{IV}}{\sqrt{\frac{\sigma_{IV}^2 + \sigma_V^2}{n}}} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(3)$$

where: σ_k^2 was the variance of the first principal component for the corresponding topics;

n– the number of participants in the survey.

The remaining eight hypotheses were tested using a test for the statistical significance of the correlation coefficient r, which was first transformed (Fisher transformation):

$$r^* = \frac{1}{2} ln\left(\frac{1+r}{1-r}\right)\dots\dots\dots\dots\dots\dots\dots\dots(4)$$

The empirical value was calculated as:

$$t_r = \frac{r^*}{\sqrt{\frac{1}{n-3}}}\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(5)$$

All computational operations in the paper were performed with MS Excel and Gretl software.

RESULTS AND DISCUSSIONS

The questionnaire was completed by 74 people. A small proportion of responses were missing (less than 1% of responses), with missing values being imputed into the database with a neutral response. In coding the data, a strongly positive response was assigned a value of 2, a partially positive response a value of 1, a neutral response a value of 0, a partially negative response a

value of -1, and a strongly negative response a value of -2.

In the sample, men had a higher relative share than women – 53.4% were men, 46.6% were women. Habilitated lecturers outnumbered non-habilitated lecturers more than twice – 68.5% were habilitated lecturers, 31.5% were non-habilitated lecturers. Lecturers with extensive experience and tenure outnumbered lecturers with little experience almost four times – 21.9% had up to 10 years of experience, 39.7% had between 10 and 20 years of experience and 38.4% had more than 20 years of experience.

The predominance of habilitated lecturers and of those with research and lecturing activity for more than 10 years gave reason to conclude that the sample included highly qualified specialists (economists and managers), habilitated lecturers with a high scientific competence, with sufficient time available to come into direct contact with practice, to participate in the development and publication of scientific works (independently and in interdisciplinary teams), to implement work in scientific networks (formal and informal). Their opinion could be considered as representative and leading in terms of the development of practice in the field of knowledge management, knowledge transfer, culture of sharing and development of research potential in Bulgarian HEIs.

Table 2. Principal component analysis

Topics	1st PCA Component Share (%)
I. Adequacy of resources	64.54
II. Organizational Culture for Active Management of Scientific Research	72.52
III. Organizational Support	76.38
IV. Interactions with Immediate Supervisor	80.47
V. Informal Relationships with Indirect Supervisors	69.08
VI. Innovative Behavior	52.87

Source: Authors calculations.

The individual questions within the six topics showed a strong consistency among themselves. Principal component analysis showed (Table 2) that within each group there was a dominant principal component that captured a sizable proportion of the variance in responses to the questions.

The highest degree of consistency was observed in the topic "IV. Relationship with my direct supervisor", where the variance of the first component was 80.47% of the total variance. The lowest degree of consistency was shown by the answers in the topic "VI. Innovative behavior", where the share of variation of the first component was 52.87% of the total variation.

For each group, the isolated first component covered more than half of the group variance of the questions, being positively correlated with all questions (there were no exceptions in this respect).

Thus, the first component for each topic represented their commonality, provided a description of the hidden (unobserved) variables expressing the attitude of the respondents towards all the topics. We constructed these variables based on the weight of the individual questions (factor loadings).

The first working hypothesis related to respondents' involvement in formal and informal relationships and suggested that informal relationships matter more.

The mean value of the isolated variable for topic "IV. Relationship with my immediate supervisor" was 2.920 and the mean value of the latent variable for topic "V. Informal relationships with indirect supervisors" was 2.816.

Respondents preferred formal relationships over informal relationships, although the difference was small.

Testing the assumption of equality of variances of the two unobserved variables yielded:

$$F_{em} = \frac{\sigma_{IV}^2}{\sigma_V^2} = \frac{7.954}{4.534} = 1.754,$$

where:

F_{em} was the Fisher ratio;

σ_{IV}^2 – was the variance of the unobserved variable for topic IV (the larger variance);

σ_V^2 – the variance of the unobserved variable for topic V (the smaller variance).

With degrees of freedom of the numerator and denominator equal to 73, the theoretical limit of the Fisher distribution was 1.473 at 5% risk and 1.733 at 1% risk.

The observed significance level of the empirical characteristic was 0.0563. Therefore, the data suggested that the variances of the two unobserved variables could be assumed to be equal at both 1% and 5% significance.

In testing the hypothesis H1, we defined the formal null and alternative hypotheses as follows:

$$H1_0: \mu_V = \mu_{IV} \, \text{vs.} \, H1_A: \mu_V > \mu_{IV} \, ...(6)$$

where:

μ_{IV} was the mean value of the unobserved variable for topic IV;

$\mu_V -$ was the mean value of the unobserved variable for topic V.

The way the null hypothesis was defined implied a one-sided critical domain. The testing of the null hypothesis was based on the Student's t-criterion, which had the value:

$$t_{em} = \frac{\mu_V - \mu_{IV}}{\sqrt{\frac{\sigma_{IV}^2 + \sigma_V^2}{n}}} = \frac{2.816 - 2.920}{\sqrt{\frac{7.954 + 4.534}{74}}} = -0.255.$$

The critical value of the t-distribution at one-sided critical region and 1% risk was 2.379, and at 5% risk was 1.666. The empirical response was smaller (in absolute value) than the critical values, which did not provide a reason to reject the null hypothesis.

The two means could be assumed to be equal, which meant that formal and informal ties were equally important to respondents – no preference was given to one over the other.

Hypotheses H2, H3 and H4 were related to the reasons for perceived organizational support, and the estimated linear correlation coefficients based on the unobserved variables were presented in Table 3.

Table 3. Correlation between 1ˢᵗ principal components

Topics	Correlation	t-stat	p-value
I. and III.	0.829	10.057	0.0000
V. and III.	0.346	3.063	0.0045
IV. and III.	0.790	9.098	0.0000

Source: Authors calculations. t-stat was computed after the Fisher's transformation of the correlation coefficients.

All three correlation coefficients had positive values that were statistically significant at both 5% and 1% risk of error. They predictably indicated a strong influence of resource availability (0.829) and interaction with immediate supervisor (0.790) on perceived organizational support. The influence of informal contacts within the organization was weak (0.346) but significant, which meant that respondents perceived the informal contact opportunities created by the organization as support. All three hypotheses, H2, H3, and H4, were supported by the available data.

Table 4. Correlation between 1stprincipal components

Topics	Correlation	t-stat	p-value
I. and VI.	0.524	4.942	0.0000
III. and VI.	0.504	4.702	0.0000
IV. and VI.	0.286	2.500	0.0190
II. and VI.	0.618	6.118	0.0000

Source: Authors calculations. t-stat was computed after the Fisher's transformation of the correlation coefficients.

Hypotheses H5, H6, H7 and H8 were related to identifying the main drivers of the respondents' innovative behavior. The linear correlation coefficients were calculated based on the unobserved variables (Table 4). All correlation coefficients had positive values, with three being statistically significant at 1% and 5% risk, and one statistically significant only at 5% risk but not at 1%. The three significant coefficients showed a significant influence on innovative behavior, with the most pronounced influence being in building an organizational culture for proactive research management (0.618), followed by adequate resources (0.524) and organizational support (0.504). The influence of direct supervisors was weak (0.286) and at the limit of statistical significance. It could be pointed out that three of the hypotheses considered, H5, H6, and H8 found support from the data, while hypothesis H7 was not sufficiently supported and could not be accepted.

Table 5. Correlation between 1stprincipal components

Topics	Correlation	t-stat	p-value
III. and II.	0.845	10.510	0.0000

Source: Authors calculations. t-stat was computed after the Fisher's transformation of the correlation coefficients.

Hypothesis H9 concerned the relationship between organizational support and building a culture of proactive management (Table 5). The resulting correlation coefficient had a value of 0.845, which was the highest of all correlation coefficients calculated and indicated a strong correlation between the second and third topics. The coefficient was statistically significant at both 1% and 5% risk. The result showed that organizational support was a key factor in the formation of a proactive research management culture in Bulgarian HEIs. Hypothesis H9 was strongly supported by the available data.

The fact that the first research hypothesis H1 had not been proven can be interpreted in two ways. On one hand, formal and informal ties could be considered equally important for respondents, where they did not oppose but complement each other. Informal relationships did not displace but built on the main lines of communication in the research process. Such a finding reinforced the results of other authors [13] [28]. However, the insufficient weight of informal ties could be due to the underdeveloped self-leadership. In it, individuals self-guided the motivational process with a strong desire to achieve a goal and directed their behavior and abilities toward it [21], and therefore self-organized and used multiple informal channels of knowledge and communication in the research process. Key for the individual innovativeness was access to non-overlapping sources of knowledge through social connections [3], which was why most new knowledge acquisition processes in the workplace were informal [4]. In any case, the issue deserves further investigation to address collaboration needs and attitudes more clearly within and outside organizations.

Respondents rate positively the perceived broad support from their direct supervisor (H4) but do not endorse their contributions to innovative behavior (H7). This result could be interpreted as a lack of expectation for the direct supervisor to stimulate innovative behavior. At the same time, such a response might signal a certain lagging of the middle level of research management in economics faculties from participation in the

development of the faculty or university strategy. When decisions were not made where the problem arose (i.e., a flexible approach was not applied), but only at a higher level, the middle and lower levels lack clarity about the full picture and especially about the organization's strategy. Particularly problematic was the issue of the role of so-called middle management in universities. Typically, these were directors of sub-structures who summarized several specialized units. The units had managers, but there was an intermediate level of reporting, and when it was not authorized to make decisions, it could be skipped informally.

Respondents' final assessment was of the proactive organizational culture, which they viewed positively. The question related to the extent of researchers' access to resources and whether they must look informally for ways to get their projects approved and to access the resources they need [6]. The overall assessment was clearly positive, which might reflect the attitudes of researchers in economics and management towards funding research projects.

CONCLUSIONS

This paper empirically examined the role of formal and informal networks in building innovation attitudes and an environment for conducting quality research in economics and management in Bulgarian HEIs. It highlighted some of the key issues not yet explored in academic literature – the behavioral attitudes and expectations of researchers towards the institutional environment, and its supportive role for the development of quality research. The contribution of the publication is in its interdisciplinary approach, where behavioral science is linked to network theory. The aim was to discover and identify more clearly those behavioral motivations and constraints that, when analyzed through the lens of network theory, provided tools to improve collaboration in research organizations and universities focused on economics and management research.

One of the important implications related to the original thesis, that the frustration of accessing information through formal channels led researchers to informal ones for knowledge enrichment and collaborative research beyond formal established boundaries. However, we concluded that even the most perfect organizational environment had its limitations as far as knowledge was vast and the possibilities for achieving it were equally impossible to grasp. Therefore, in an ideal research world, informal contacts would always be important. How they will complement formal ones depends both on what the internal formal environment offered in terms of opportunities and what researchers were looking for. There is rarely a balance between these, which is why universities need to be careful about setting boundaries in the research process.

Among the possible avenues for good collaboration is the approach called "relational agency" by Edwards and Mackenzie [10]. The presence of relations means that many people are involved (i.e. it is not an individual task). In the context in which the participants are placed, they continuously set themselves innovative tasks and, in this sense, a dynamic way of interacting is applied/practiced, with each successive task building on the previous one. Thus, a contradiction between structure and relational agency arises here, but it is resolved during the dynamic relationship because the object of activity is constantly expanding [17].

Such a flexible approach is appropriate for research in economics and management because of the holistic nature of decisions in the social sciences.

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