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## Responsible decisions in banking: A practitioner's point of view

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### ABSTRACT

This paper problematizes, from a practitioner's point of view, the role of expert's judgement in the risk management decision-making process. International regulatory frameworks advice to use mathematical models as the basis of banking risk management. In addition to this, we propose to include the opinion of experienced practitioners, as a key feature to build legitimacy in the risk process within the organization.

We analyze six interviews to Argentinean and Spanish practitioners from the banking sector. A previous pilot survey leads to the construction of the questionnaire, which was divided into three parts: (i) the importance of quantitative formal models and its perception, (ii) the anticipatory capacity of quantitative models and, finally, (iii) how responsible they are.

We conclude that, in deep financial markets, expert's opinion has a greater importance relative to those of emergent economies, where both risk management and its regulation is underdeveloped. Moreover, while quantitative reasoning is prevalent within financial decision making, it is also necessary to include qualitative information to embed responsibility into banking risk management. We set the discussion about the proper relation between theory and practice. Regulation needs to advance towards a framework of responsible governance with and for the society (anticipative, reflexive, and deliberative).

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## 1. INTRODUCTION

This paper problematizes, from a practitioner's point of view, the role of expert's judgement in the risk management decision-making process. This will be done by providing an empirical study of how experts work within banking institutions with a particular focus on its incidence on market risk management. The proposed methodological design is based on surveys as in [1-2].

Our working hypothesis is that expert's opinion directs the professional practice of the banking sector. International regulatory frameworks such as those of the Basel Committee advice to use mathematical models as the basis of banking risk management [3-7], in spite of this, the opinion of experts is important as a tool for providing legitimacy to the process of risk management within the firm.

To contrast this hypothesis, we develop a methodology for processing interviews to banking and regulatory institutions from Europe and Argentina. To better identify the influence of expert's judgement on decision making and management, the conducted interviews were profound and non-structured [8]. It is also necessary to methodologically establish the link between quantitative and qualitative information [9], and its relation to expert's judgement. At this point, its fundamental to stress the importance of flexible interviews, that give enough leeway for the expert to freely associate ideas in light of her professional experience [9].

The remaining of this paper is divided into three parts. The first part explains the methodological design in detail including the sequential construction of the instrument, the relation to qualitative information, and the criteria to the

selection of experts. Next section presents the results of the interviews, as well as the categories and dimensions derived from the interviews. The last section is a brief conclusion.

## 2. METHODOLOGICAL DESIGN

The methodological design was chosen to integrate quantitative and qualitative method such as in [1]. This is also sometimes called mixed of qualitative-quantitative integration [8]. The quantitative uses numerical data and rests on the factibility of measurements to achieve its analysis. While the qualitative is applied to refine and explore problems and research

questions without the need for numerical data. Its purpose is to describe reality as it is perceived by the actors of a social system [8].

The research of phenomena, in this case of financial risk management, must contain both focuses to be able to test our hypothesis. While in the financial decision-making ambience is dominated by the quantitative focus, it is necessary to include qualitative information in order to impose responsibility in financial risk management [10-11]. In the context of forwarding a responsible governance framework that is anticipative, reflexive, and deliberative, it is very important to propose a management model that contemplates formal models and its twisting guided by expert's opinion by means of a qualitative study.

At this point we should note that this proposal includes the necessary guidelines to safeguard ethical questions in taking qualitative data by survey or interview [12]. Between the

months of July and December of 2016, live interviews were conducted to experts with their express permission to be recorded for academic purposes.

This mixed model represents a high degree of integration of both qualitative and quantitative focuses [8, 13]. In order to obtain valid conclusions, the analyst must be proficient in both focuses, and have the openness to let them act on each other.

The first stage requires the definition of the qualitative data recollection tool, which was chosen to be a profound, non-structured interview with directors, managers, and experienced analysts belonging to the Argentinean and Spanish banking sector, both in state-owned and private entities. In all cases, the base questionnaire is used as a conversational guide, but this conversation can be derived to any topic that the expert deems important.

The base questionnaire is constructed on the basis of a pilot survey guided by the pre-concepts of the interviewer by choosing triggers that direct the interview towards the desired topics. This was then tested with an expert's interview of a medium-sized Spanish bank. This first interview with the integral risk manager allowed to refine the questionnaire and incorporate concepts that were omitted in its original form. The following topics were considered in the refined version of the base questionnaire:

- (i) Mechanism of management and updating of tests and recalibration methods for risk management.
- (ii) Frequency of revision of formal methods.
- (iii) Inclusion of relevant counterfactuals
- (iv) Consensus level among the risk management hierarchical staff.
- (v) Expert's intuition on risk exposure unaided by formal measurements.

The first two topics are relevant in knowing how important are formal models in the decision making process to control, manage, and mitigate the effects of market risk on the bank's balance sheet. The third point attempts to observe if the expert's judgement is preventive or reactive to risk. This is complemented by the fifth point which observes the experience of the analyst with fast, intuitive decision-making. Lastly, the fourth topic is an approximation of the responsible character as an anticipatory, reflexive, and deliberative practice in risk management. From this methodological design and its application to the field, it is possible to define categories and concepts that arise from non-structured conversations with key actors. This process is analyzed in the following section.

### 3. RESULTS

The purpose of this qualitative stage is to better understand the influence of experts on banking risk. It is for this reason that the selection of study cases does not follow a quantitative logic, rather the quality and representativeness of the information provided [13].

After the pilot test conducted by the analyst, five more interviews were performed. From those interviewed, we have one each of the following: three risk managers (of a medium public Spanish corporation, a State-owned Argentinean private bank, and a small Argentinean private bank), a regulator (Bank of Spain), and a retired manager (medium-sized Argentinean bank). All of them are experts in actuarial risk models.

This setup allows several for several viewpoints of the same topic, as we have small, medium, and large banks represented, both private and state-owned, as well as the representation of the banking authority. Because of this and from a management's point of view the authors consider that the information provided by the interviewed is relevant.

We resume the results with our three proposed categories in mind (perceived importance of formal models, anticipatory character of the models, and the responsibility dimension). On the first category we found that:

- Both the medium and large banking representatives gave formal models the most importance 2.

1 At this stage, every time that the interviewer or analyst figure is invoked, this is referencing to Martín E. Masci, who was responsible for all 6 interviews to experts in Spain, and Argentina.

2 Public Spanish bank representative: "(...) *yo creo que la parte de riesgo de mercado debe ser un área del banco donde la metodología sea más inflexible: al final, es el modelo el que manda.*"

State owned private Argentinean bank representative: "*En mi opinión la metodología cuantitativa empleada para valorar los Riesgos de Mercado es precisa y adecuada y mantiene una cierta holgura con el riesgo asumido. Sin embargo, debe ser calibrada periódicamente para corroborar su precisión en las predicciones*"

- The small bank and banking authority representatives stressed the importance of the experts, considering that the formal models are just a tool.<sup>3</sup>
- All of the banking representatives saw an insufficient adequacy level between expert's opinion and the use of formal models.

With respect to the anticipatory capacity of the models there is greater disparity, but we can say that:

- Most managers are distrustful of the ability of formal models to anticipate extreme risk. Three experts considered that they either can't or shouldn't be incorporated (one of them proposing an unaided professional approach). One respondent considered extreme events as a data point. While only one proposed a formal approach, namely, the tools of Extreme Value Theory.

The models used by institutions are more complex and refined in Spain than in Argentina. Although Argentinean banking re-calibrate their models more frequently. We attribute both of these results to market characteristics (Spain's financial sector being more complex, while Argentinean financial sector being more volatile).

3 Banking Authority: "*La metodología siempre debería estar influenciada por la experiencia y opinión de un experto, ya que no existen metodologías cuantitativas perfectas*"

Small Bank representative: "*En términos generales, en el contexto del mercado local las metodologías de medición de riesgo de mercado son relativamente escasas, ya sea basados en la poca profundidad de los mercados, en la ausencia de diversidad de instrumentos y en la carencia de datos confiables robustos que permitan la aplicación de modelos más complejos. Por ello, generalmente los modelos de gestión de riesgo se centran principalmente en técnicas de Valor a Riesgo a partir de métodos históricos y/o paramétricos.*"

Finally, on the dimension of responsibility:

- Most of the respondents seem to be confident on their personal ability to make approximate risk calculation rapidly and unaided by formal models.<sup>4</sup>
- On the consensus level with respect to the risk decision making process we can observe that the Argentinean experts view their decisions

4 Medium Spanish bank: “yo no tendría ni idea. Yo tampoco estoy controlando el rendimiento que tienen ciertos activos en sí, o sea, al final no tengo esa sensibilidad. Pero es posible que sea un analista de bolsa hoy el que va a hacer eso. ¿Esto a que te suena a ti? Sin ver un modelo, sin ningún ratio, pues con lo que yo sé, me suena que va a ser esto o que luego voy a hacer otra cosa, ¿no? En base a lo que yo sé, mi experiencia pasada, cómo veo el mercado, cómo es el sector, pues puedo inferir más o menos qué es lo que puede hacer esta empresa.”

Banking authority: “Si, podría decir que es la máxima pérdida que ha ocurrido en el pasado, lo que luego debería ajustarse con algún factor (pero para este último paso necesitaría utilizar al menos una calculadora)”

State-owned Argentinean bank: “En mi opinión considero que es posible estimar un porcentaje de pérdida y una banda de confianza sin emplear recursos tecnológicos, aún con la posibilidad de tener un margen de error.”

Private Argentinean bank: “Si bien no es una respuesta formal, la unión de ambos riesgos tendrá un riesgo máximo en el producto de los mayores retornos negativos de cada uno de forma independiente (convolución). De acuerdo al sesgo que tengan las distribuciones hacia lo negativo, se podría obtener una idea de que porcentaje de tan velozmente se acumula el nivel de confianza en los retornos negativos” as a result of consensus in their respective risk offices. While Spanish see it as an imposition of the directives of the institution.

#### 4. CONCLUSION

We conclude that the hypothesis that expert’s judgement directs professional practice is partially verified. In profound markets, expert’s opinion has the greater incidence in decision making. While emergent nations usually have less developed regulation and, as such, expert’s opinion carries less weight. Because of this, it is important to forward proposal to protocolize the former management model.

To verify this hypothesis, six interviews to experts from the Argentinean and should contemplate the importance of mathematical formal models, while taking advantage of the experience of key professionals and its incidence within banking institutions. Spanish banking market were conducted. Prior to this, a pilot test was conducted to aid in the construction of a questionnaire divided into three parts, namely, the perception of the importance of formal quantitative models, the anticipatory character of models, and the responsible character of the decision making process.

To tackle these dimensions, seven initial questions were forwarded. The methodological design was based in non-

structured profound interviews allowed the analyst to change the focus of attention towards what he or she thought was relevant, and this enriched the stage of qualitative information recollection.

We set up a discussion on the need to rethink the links between theory and professional practice. It is necessary to regulate management both in its quantitative and qualitative aspects. In this way we can advance, in the context of the discipline of financial management towards responsible governance framework with and within society that involve the anticipative, reflexive, and deliberative dimensions to the decision making process.

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