

# FINANCIAL CAPABILITY AS A FUNCTION OF FINANCIAL LITERACY, FINANCIAL ADVICE, AND FINANCIAL SATISFACTION

**Khurram Ajaz Khan<sup>1</sup>, Gentjan Çera<sup>2</sup>, Sandra Raquel Pinto Alves<sup>3</sup>**

<sup>1</sup> Tomas Bata University in Zlín, Faculty of Management and Economics, Czech Republic, ORCID: 0000-0001-5728-8955, [khan@utb.cz](mailto:khan@utb.cz);

<sup>2</sup> Tomas Bata University in Zlín, Faculty of Management and Economics, Czech Republic, ORCID: 0000-0002-9324-181X, [cera@utb.cz](mailto:cera@utb.cz);

<sup>3</sup> Instituto Politécnico de Leiria, Portugal, [raquel.alves@ipleiria.pt](mailto:raquel.alves@ipleiria.pt).

**Abstract:** *There is no substantial evidence that exists in the literature to establish the link between financial advice and financial capability fully establishes, even though 'getting help' is identified as an important aspect of financial capability. This study sets out to fulfil a couple of objectives. Its primary goal is to investigate the effects that a combination of financial literacy elements (financial attitude, financial knowledge, and financial behaviour), financial advice as well as financial satisfaction have on individuals' financial capability, and secondly, to test and prescribe the improved scale of financial capability measurement. This research has been administered in Spain at an individual level. Hierarchical regression method along with Z-test were used. Regressions' outcomes reveal that financial constructs positively impact the individuals' financial capability. From the viewpoint of policymakers, it is vital to fully comprehend the significant factors influencing financial capability to plan better strategies to empower the citizens with adequate skills, abilities, and behaviour so to succeed in dealing with financial matters in daily basis. The originality and value added to the present study is two-fold. Firstly, it comprehensively examines the wide-ranging financial indicators seen as critical in determining financial capability, which remain yet not quite covered in other studies. Second, both indicators used to measure the financial capability revealed no substantial differences, therefore an improved composite scale is prescribed as useful in measuring financial capability in future research.*

**Keywords:** *Financial capability, financial literacy, financial advice, financial satisfaction, Spain.*

**JEL Classification:** G41, G53.

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## Introduction

The capability theory is concerned with an individual's ability and opportunity to act, which grants the freedom to live life as one pleases (Sen, 1993). Based upon this theory, financial capability relates to the ability and opportunity to act (Johnson & Sherraden, 2007). A more detail definition given by Brown (2020) that financial capability is classified as internally focused including knowledge, skills, and behaviour, and those that also acknowledge a person's external

context including systems and structures. Many scholars concur that the concept of financial capability is much broader than the idea of financial literacy (Johnson & Sherraden, 2007; Kempson et al., 2013; Shim et al., 2013; Taylor, 2011). Studies explain that financial capability is a broader term, and financial literacy is just a building block of financial capability. It also includes financial advice and financial inclusion (Johnson & Sherraden, 2007). According to Sen's (1993) theory, financial capability comes

from two sources: internal ability and, second, from external opportunity. Sherraden (2013) explained that financial literacy belongs to the first category, i.e., ability, and financial inclusion and financial advice belongs to the second category, i.e., opportunity. Researchers have been in favour of financial capability because it embraces both internal abilities and external opportunities. A careful investigation of existing literature provides a diverse viewpoint on financial literacy and financial capability when both are examined from a different perspective. Often these concepts are used interchangeably, but only a few studies manage to delineate financial capability as a broader term (Xiao & O'Neill, 2018). Since studies explain that financial literacy comprises three components: financial knowledge, financial attitudes, and financial behaviour (Agarwalla et al., 2015; Atkinson & Messy, 2011; Huston, 2010; Vieira et al., 2019), the present study adds how they might affect financial capability individually. Probably, this could be a reason behind many researchers' support in building financial capability. There is no substantial evidence that exists in the literature to establish the link between financial advice and financial capability fully establishes, even though 'getting help' is identified as an important aspect of financial capability (Kempson et al., 2005). All these components play a role in increasing an individual's financial capability to improve his/her financial decision-making. Therefore, to address this gap, the present study examines the effect of financial advice on financial capability by considering it as part of one's opportunity to act.

Limited studies have looked at the relationships between financial capability and financial satisfaction (Arifin, 2018; Çera, Khan, Belas, et al., 2020; Xiao & Porto, 2017). Authors have been keen to examine how financial capability affects financial satisfaction in several of their analyses. However, few studies have covered the extent to which financial satisfaction affects financial capability (Archuleta et al., 2013; Xiao et al., 2015; Xiao & O'Neill, 2016, 2018).

In its own course of the investigation, the present study also intends to support the existing scale for financial capability measurement through its composite scale by offering a better financial capability assessment. Since the paper has a set of other objectives, the stress is laid thick on the scale employed by many authors for purposes of financial capability measurement.

It has been found that financial capability is measured only with one indicator (statement) (Potocki & Cierpiał-Wolan, 2019; Xiao & O'Neill, 2016). The paper also intends to add by offering a composite scale for financial capability measurement. The two measures used in the study are taken based on the definition given by (Brown, 2020). The first one is about dealing with day-to-day financial matters, which is used in several studies (Çera, Phan, et al., 2020; Potocki & Cierpiał-Wolan, 2019; Xiao & O'Neill, 2016). The second measure points to the digital financial capability (Luo & Zeng, 2020). Since the previous studies used only one indicator to measure financial capability, the present study intends to introduce a new scale about electronic payment use for measuring financial capability and to suggest an improvement in the scale for financial capability measurement. The idea of introducing electronic payment use measure for financial capability is basically derived from the very recent published works on digital capability as part of financial capability (French et al., 2020; Luo & Zeng, 2020). It reveals the role of electronic payment usage in an individual's financial capability building. The authors believe that if an individual can regularly make electronic payments, which, in fact, possible due to the availability of systems and structure in the environment, it could be a part of financial capability building. That is why the second scale is related to system and structure as defined by Brown (2020). The authors believe that the best way to measure financial capability is by including more than one indicator in the financial capability measurement. With the above in mind, this paper investigates determinants (including a broader range of financial constructs) of the individuals' financial capability and builds upon the financial capability scale. This is considered a novel element in the present study, which seeks to increase the depth of the financial capability literature by examining the other variables and strengthen its measurement scale through composite scale use suggestion. The objective of the study is aligned to address the future research agenda already identified by Xiao et al. (2014) that financial capability so far measured by a broader range of variables rather than the hitherto very limited variables.

The study was administered in Spain due to several reasons. Financial literacy has been found to be at much lower levels among Spanish adults than the adults in Europe. By

contrast, Sweden, the Netherlands, Denmark, and Germany exhibit a higher financial literacy rate than Spain (Klapper et al., 2014). On the other hand, displaying one of the highest rates of early school leavers in the European Union, a higher proportion of the population is at risk of poverty and income inequality, which undoubtedly constitute one of the many economic challenges currently facing Spain (EC, 2018). Moreover, COVID-19 has the most severe impact in Spain (Livingston et al., 2020). The impact of COVID-19 on global GDP is huge, and projected GDP growth for 2020 is about -4%, with major economies suffering the most (Boissay & Rungcharoenkitkul, 2020). That is why the geographical focus of the study was Spain. Moreover, given the current environment, if an individual possesses an adequate amount of financial capability which might prove helpful to plan and invest wisely during the post-crisis period, which alone might help them reduce to a large extent the severity of the situation.

The present research is unique because of the two-fold objectives it intends to accomplish, and it very likely complements the existing literature with its results on the unique financial construct combination which do affect financial capability. The outcomes of this study might help scholars and practitioners better comprehend the notion of financial advice and financial satisfaction and its association with other financial capability variables in an improved manner. It can even help business professionals and service providers in customer services and policymaking in many ways, among which, how best an effective approach can be developed to assist clients optimally.

The study is laid out as follows: The first section is devoted to a systematic literature review covering financial capability and financial constructs relationships. The second section comprises the conceptual model, the hypothesis, data, methodology, and the statistical analysis techniques employed in this study. In the last section, empirical results are presented and discussed with conclusions arrived at, limitations identified, and future research agenda laid out properly. The last section of the study focuses on the practical implications deriving from the findings.

## 1. Theoretical Background

The following literature examines the associations between financial construct

(includes all the independent variables) and financial capability. Since the present study is based on the capability theory of Sen (1993), it deals with internal and external abilities (Johnson & Sherraden, 2007). The literature review brings out how financial behaviour, attitude, and knowledge, as an internal ability, and financial advice, as an external ability, and financial satisfaction being the one's own assessment of the current financial situation, affect an individual's financial capability.

The present study's theoretical framework is based on the definition above mentioned (Brown, 2020) that internal capabilities are about knowledge, skills and behaviour and external capability related to existing structure and systems prevailing in the economy. Several definitions can be traced from the various literature, such as the concept of financial capability covers several dimensions ranging from resources, accessibility, habits, to knowledge (Lin et al., 2016). Financial capability is about an individual's knowledge of finance, reflected by the person's potential to manage and control their money and funds. High income does not necessarily reflect higher financial capability or vice-versa. It depends on how wisely a financially capable individual plans, manage and take control of finances (Taylor, 2011). Xiao et al. (2014) purport that financial capability is the application of financial knowledge and it favours those financial behaviour that impact the enhancement of overall financial well-being. Researchers conceived financial capability not only as knowledge, but they argue that the term 'financial capability' comprises the individual's ability to use this knowledge in their daily lives. According to Vyvyan et al. (2014), financial attitude, knowledge, and behaviour are among the key factors affecting financial capability. Similarly, financial advice being an external opportunity is the part of system and structure we live in, for which literature has strong support (Çera et al., 2021; Johnson & Sherraden, 2007; Nam et al., 2019). Additionally, prior papers suggest a positive influence of financial satisfaction on financial capability (Xiao et al., 2015; Xiao & O'Neill, 2016).

Based on these premises as defined by Brown (2020), which go in line with Johnson and Sherraden (2007), the study examines the effects of financial knowledge, attitude, and behaviour as an internal ability and financial advice as an external opportunity along with financial satisfaction on financial capability.

## 1.1 Financial Knowledge and Financial Capability

Financial knowledge is defined as having an understanding of personal finance and economics. It certainly reflects an individual's internal capability (Rothwell et al., 2016). The concept of individuals' financial knowledge comprises knowledge over savings and investment, banking and insurance, taxes and debts (Bowen, 2002; Mouna & Anis, 2015). A person's knowledge of financial markets and systems is an essential component for informed financial decision-making (Lusardi & Mitchell, 2014). Studies reveal that financial knowledge does affect financial decisions (Nicolini & Haupt, 2019). As financial capability relates to efficient management and control of funds (Taylor, 2011), it influences the decision-making process. If we are led by the assumption that an individual is acquainted with these key financial terms, then such a knowledge can positively help his/her financial decision-making and planning. Knowledge of financial systems is a necessary part of financial capability (Rothwell et al., 2016). It is right to argue that financial knowledge improves financial decision-making, resulting in higher financial capability. Studies identify that financial knowledge is a part of consumers' capability, which can affect debt decision-making (Lee et al., 2019). Similarly, studies have emphasized that an improvement in financial knowledge might increase an individual's financial capability (Batty et al., 2015). Another study has indicated that financial knowledge has a positive effect on an individual's financial capabilities (Ali et al., 2015). Pieces of evidence have also indicated that financial knowledge is strongly linked to financial capability. Being closely related to financial literacy, financial knowledge impacts financial capability; hence the more an individual increases financial knowledge, the more financial capability gets improved. Hence, it stands to reason to claim that broader financial knowledge may bring about better financial capabilities. Based on the above, the following hypothesis is formulated:

*H1: Financial knowledge positively affects financial capability.*

## 1.2 Financial Attitude and Financial Capability

Several studies have shown that attitudes influence individuals' financial decision-making

(Shih & Ke, 2014). In this regard, Rai et al. (2019) have pointed out that an individual's financial attitude is defined as 'an approach he/she adopts towards financial matters'. Financial attitude has to do with the individuals' confidence to make suitable financial selections (French & McKillop, 2016). It has also been observed that the individuals' economic and non-economic confidence impacts their financial attitude, which is a key aspect in the decision-making process (Ajzen, 2009; Potrich et al., 2015). As part of financial literacy, enhanced financial attitudes can also increase financial capability. Given the above, we might establish a possible association between financial attitude and financial capability (Batty et al., 2015). Besides, a recent study has found that a change in financial attitudes, along with an improvement in understanding and basic skills, can bring about better financial capability behaviour (French et al., 2020). It has also been established that attitude does affect an individual's financial capability (Shim et al., 2013). In short, the discussion concludes that financial attitude does have a direct influence on financial capability, and it would only be logical to examine further how financial knowledge affects financial capability in the context of Spain.

*H2: Financial attitude positively affects financial capability.*

## 1.3 Financial Behaviour and Financial Capability

Individuals and societies incur indirect costs due to poor financial decision-making, which is more than enough to attract policymakers' attention. Their concern is about how the decision-making process can be improved further through tools like financial capability. In this context, several studies purport that financial capability can be improved by changing an individual's behaviour (Dolan et al., 2012), but more studies need to be undertaken to find out how changing one's behaviour can improve financial capability. In this regard, Bhushan and Medury (2014) explained that financial behaviour is inclusive of all types of behaviours dealing with financial decision-making and money management. The term 'financial behaviour' appears to be such a complex term since it covers all the monetary activities undertaken by the economic agents (Mudzingiri et al., 2018). Rai et al. (2019) further claim that all these elements, including

financial planning, saving, budgeting, investing, debt payment, etc, come under the radius of financial behaviour. Several studies have indicated that there is a substantial relationship between financial behaviour and financial capability, with financial behaviour being a vital part of financial literacy. Theoretically, improved financial behaviour positively impacts financial capability. In fact, a person's financial behaviour is believed to be relevant for examination from the scholars' point of view over the recent years (Shkvarchuk & Slav'yuk, 2019). Persons' financial capability might be assessed through financial behaviour (Lusardi, 2011). Financial behaviour has a big impact on the financial capability of individuals and is an essential factor in determining a person's financial capability (Çera, Khan, Mlouk, et al., 2020; Potocki & Cierpiel-Wolan, 2019; Shkvarchuk & Slav'yuk, 2019; Xiao et al., 2014). Financial behaviour is about how an individual makes financial decisions, and each financial decision entails some impacts. Since financial behaviour affects financial decisions making, it can affect individuals' financial capability. This relationship establishes how financial behaviour has a connection with financial capability. Therefore:

*H3: Financial behaviour positively affects financial capability.*

#### 1.4 Financial Advice and Financial Capability

An evaluation of financial capability has to look at how well individuals make ends meet, choose, manage financial products, plan and acquire the skills and knowledge, which are critical in financial decision-making (Lusardi, 2011). Individuals with less financial education and awareness may suffer consequences from wrong choices and miss-calculation. When choosing any financial product or service, a low education and awareness level is considered to be a huge hurdle in making the right choices. For critical financial decision-making, the following: long-term retirement plans, education loans, and financial advice are deemed necessary (Khan et al., 2020; Morrow-Howell & Sherraden, 2015; Nguyen & Rozsa, 2019). To address this barrier financial advice and guidance do play a positive role. In this case, financial advice might be an alternative to financial education, and studies reveal that financial guidance brings benefits to those who have less financial knowledge (Moreland, 2018). The individuals

do have an opportunity to act since financial advice comes from external support. Financial advice may come from professional or non-professional sources, and few studies indicate that professional advice is significant in building financial assets (Liu et al., 2019). Thus, advice attributed to external opportunities, which is a vital element that can boost an individual's financial capability building. For a person to be financially capable financial guidance and advice are essential for individuals to plan properly and manage financial matters for future financial stability (Morrow-Howell & Sherraden, 2015). Financial advice and guidance are important in making people financially capable (Georgarakos & Inderst, 2011). Hence, it can be firmly established that financial advice is a productive and key variable since it plays a vital role in building financial capability, yet there is a need for a careful statistical evaluation to confirm its impact firmly.

Financial advice has been at the centre of scholars' attention over the past few years (von Gaudecker, 2015). Financial advice is a major variable that contributes to financial decision making (Kim et al., 2018), and that alone could be a likely reason as to why a big chunk of households seek expert advice to arrive at a better financial decision making (Stolper & Walter, 2017). Studies have revealed mixed results concerning the end-users of financial advice. Some studies indicate that individuals with a higher level of financial literacy have bigger chances to settle for financial advisors. Yet, Moreland (2018) indicates that individuals with less financial knowledge stand to benefit a great deal from financial advice, and that is how financial advice improves financial decision making. The mixed results of the studies render financial advice to be an interesting variable to be further considered and investigated accordingly. It is also necessary to further examine how financial advice affects financial capability which has not yet been covered in the existing literature. On the other hand, to be financially capable, individuals must possess all the advice and guidance they need to plan ahead for a steady financial future (Sherraden et al., 2015). Previous studies found that financial advice improves financial literacy among households (Lotto, 2020), which is a part of financial capability. Since advice can come from any source, be it formal or informal, its positive effect can result in better financial

capability through better decision-making. Existing literature establishing the relationship between financial advice and financial capability is very limited; therefore, it would be interesting to examine the theoretical concept under which financial advice is part of external opportunities contributing to building financial capability (Johnson & Sherraden, 2007). Thus, the following hypothesis is framed:

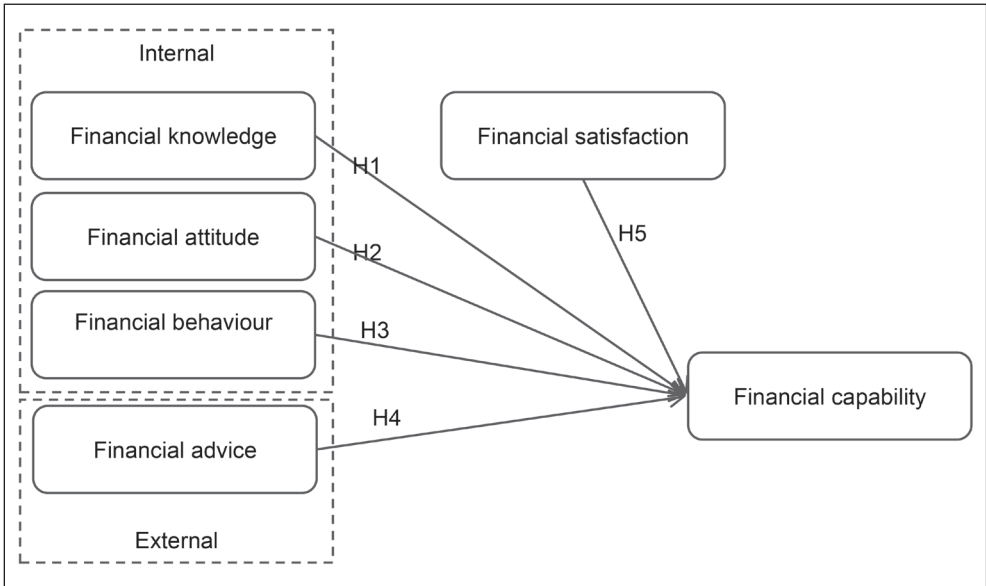
*H4: Financial advice positively affects financial capability.*

### 1.5 Financial Satisfaction and Financial Capability

It has been observed from previous studies that financial capability is a key ingredient of financial satisfaction (Xiao et al., 2014; Xiao & O'Neill, 2018). Improved financial capability improves to a large extent individuals' financial satisfaction (Xiao & O'Neill, 2018). Financial capability and financial satisfaction comparison reveal that they share many common factors that affect both. There is a need for further investigation to establish how financial satisfaction can influence financial capability. A thorough review of the existing literature detected that quite

a few studies had used financial satisfaction as an independent variable to measure its impact on dependent variables (Archuleta et al., 2013; Robb & Woodyard, 2011). It encourages the present study to measure financial satisfaction as a predictor of financial capability. There are studies but limited, which support the identified idea of how financial satisfaction can affect financial capability. Studies found that financial satisfaction positively affects perceived financial capability (Xiao et al., 2015; Xiao & O'Neill, 2016). Further delving also establishes a connection with how financial satisfaction can affect financial capability. By way of examination, financial satisfaction relates to an individual's assessment of his/her financial situation, how happy he or she is with his/her present financial situation (Hira & Mugenda, 1998; Zimmerman, 1995). Individuals who have positive financial satisfaction reflect adequate levels of happiness and less financial stress (Hansen, 2011; Zimmerman, 1995), and this happiness and freedom from financial stress may lead towards financial capability building positively. Furthermore, another study found a strong connection between financial

Fig. 1: Theoretical model



Source: own

satisfaction and saving behaviour, and higher satisfaction leads positively towards saving behaviour (Traut-Mattausch & Jonas, 2011). Since studies explained that saving improves wealth (Lusardi, 2008), this improvement might ultimately build financial capability. Another study states that individuals' financial capability can be measured better through intrinsic psychological characteristics, such as cognitive, emotional, etc (de Meza et al., 2008). Besides all the above discussion, it was also found that happiness is linked with and precedes many successful outcomes (Lyubomirsky et al., 2005). Thus, it becomes imperative to investigate that if an individual is financially satisfied and content, does it improve financial capability. Based on these pieces of evidence, the present study explores whether financial satisfaction has a positive effect on financial capability as an outcome of happiness and contentment.

Other studies have established that financial satisfaction and financial capability are closely related and have many common elements, including financial behaviour and financial knowledge (Ali et al., 2015; Çera, Khan, Belas, et al., 2020; Falahati et al., 2012; Friedline & West, 2016; Joo & Grable, 2004; Luukkanen & Uusitalo, 2019; Naqvi et al., 2020; Xiao & Porto, 2017). So, by way of extension, there is a need to investigate whether there is any impact of financial satisfaction on financial capability. Based on this, the present study investigates whether financial satisfaction positively affects financial capability since there is limited literature in this area. Consequently, the following hypothesis is framed:

*H5: Financial satisfaction positively affects financial capability.*

To test the framed relationship from the designed framework (authors' own work). All the discussed relationship in the literature review section shows a positive effect, therefore, the present framework tests their positive impacts. Fig. 1 illustrates visually these linkages grouped in internal and external influences on financial capability.

## 2. Research Methodology

### 2.1 Sample

The study was administered in Spain for several reasons, which were discussed in the introduction. The main reason is that the Spain's

level of financial literacy is not similar to that of other robust economies across the European Union (Klapper et al., 2015). Another reason is Spain was closely related to the ramifications suffered in the wake of the economic crisis in 2008 (Jimeno & Santos, 2014). The current research investigates whether the relationships between financial constructs and financial capability can produce useful results in the context of Spain or if it can contribute to an individual's saving and investment growth and protection.

To test the designed conceptual framework (Fig. 1). A questionnaire was designed in the Spanish language built upon the existing literature with the content being thoroughly reviewed by another two academics across different locations in Spain. Young adults comprise the unit of analysis, which is widely used by scholars (Belás & Gabčová, 2014; Friedline & West, 2016; Potrich et al., 2016; Xiao & O'Neill, 2016). A few samples of the questionnaire were tested to ensure the consistency and accuracy of the questionnaire, and then a pilot test was conducted with a sample of 40 questionnaires to ensure the outcomes as per the desired expectations, with the selected samples being excluded from the final sample. Distribution and collection of questionnaires spanned almost two months, starting in June and being completed in July 2019. University alumni database was used to approach the respondents (almost 2,600 records). Each alumnus was requested to provide a relative's contact who had had a birthday recently, and then those individuals were contacted in person to get the questionnaire completed. The final sample (after all adjustments) collected was two hundred respondents matching the minimum requirement of the sample size (Bagozzi & Yi, 2012). The final sample profile details are given in Tab. 1.

### 2.2 Variables

The dependent variable in the current research is financial capability. The present study has chosen two measures of financial capability, which fall under the scope of the definition given by (Brown, 2020). Unlike prior studies (Potocki & Cierpiat-Wolan, 2019; Xiao & O'Neill, 2016), which used only one statement to measure the internal ability of financial capability, which is "I am good at dealing with day-to-day financial matters, such as checking accounts, credit

Tab. 1: Sample profile

Variable	Categories	Frequency
Age	Mean (standard deviation)	28.59 (6.75)
Gender	Male = 1	29.70%
	Female = 0	70.30%
Education	University diploma = 1	70.30%
	Less than university diploma = 0	29.70%
Occupation	Non-active labour = 1	9.41%
	Otherwise = 0	90.59%
Marital status	Single = 1	27.23%
	Otherwise = 0	72.77%
Monthly income	Less than 1,500 EUR	52.97%
	Otherwise = 0	47.03%
Region	North	18.00%
	Central	21.50%
	Capital city	10.00%
	East	19.50%
	West	11.00%
	South	20.00%

Source: own

and debit cards, and tracking expenses". This paper introduces another indicator that can measure financial capability, which is "I often use electronic payment mode for paying bills through credit card, debit card, online banking, mobile banking, etc", to measure the external opportunity. The first indicator was proposed by a prior study (Robb & Woodyard, 2011) and the National Financial Capability Study in 2012, covering the United States of America. The second measure was related to electronic payment use, inspired by the financial capability scale for young adults (Collins & O'Rourke, 2017). The scale is intentionally chosen to focus on the system and structure support under the mentioned definition. The measure is further supported by the statement that electronic payment usage needs quite a high level of financial capability (Ellison et al., 2014). The choice of the scale is also encouraged by the studies that found digital banking usage and smartphones are significant for financial capability (Çera, Phan, et al., 2020), mobile banking, and online shopping (Luo & Zeng,

2020). The study intends to conclude that being part of the system and structure, electronic payment usage might reflect the individual's financial capability. The authors believe that financial capability can be better measured by using two indicators. Hence, in addition to the standard type of measurement, this work considers a second indicator. It can be stated that in the current research, two variables are covering financial capability. In order to investigate the similarities between the above variables, the regressions parameters were compared by applying a statistical test (Z-test).

5-point Likert scale in the form of self-evaluated statements was used to measure the financial constructs (1 = strongly disagree, 5 = strongly agree) as shown in Tab. 2. For financial advice and financial capability (dependent variable) measurement, four items from National Financial Capability Study were used (FINRA, 2012) along with one self-developed statement. To measure financial satisfaction, the items from the scale given by Chuan et al. (2012) were used. To evaluate



financial attitude, four items were adapted from a previous expert study (Atkinson & Messy, 2011). Four items were used to measure subjective financial knowledge (Danes & Haberman, 2007; Grable et al., 2011; OECD, 2013; Woodyard & Robb, 2012). Financial behaviour was measured from a combination of

five statements used in previous research (Joo & Grable, 2004; Potrich et al., 2016). Given the contribution of several prior scholars and experts in financial literacy, the financial attitude was measured by four statements (see Tab. 2).

In addition, Tab. 2 reveals the results of factor analysis and scale reliability. All

**Tab. 2: Rotated component matrix**

Items and components	LD	CM
<b>Financial knowledge (EV = 17.82%; CR = 0.919)</b>		
An investment with a high return is likely to be highly risky.	0.828	0.871
High inflation means that the cost of living is increasing rapidly.	0.808	0.828
I am pretty good at calculation like profit and loss, percentage, etc.	0.798	0.800
I understand the cost of buying on credit.	0.721	0.742
<b>Financial advice (EV = 17.42%; CR = 0.902)</b>		
I consider others' opinions in decision making (buying, investing, savings, borrowings, etc).	0.837	0.876
Consultation is important in dealing with financial issues.	0.814	0.829
I think financial advice is helpful.	0.806	0.762
I seek professional financial advice/advisor.	0.736	0.708
<b>Financial attitude (EV = 15.22%; CR = 0.874)</b>		
It is important to set goals for the future.	0.816	0.809
I keep a close personal watch on my financial affairs.	0.755	0.811
After making a decision about money, I tend to worry too much about my decision.	0.702	0.731
I pay my bills on time.	0.659	0.66
<b>Financial behaviour (EV = 15.11%; CR = 0.893)</b>		
I compare prices when buying something.	0.832	0.837
I analyse my financial situation before a big purchase.	0.753	0.808
I take notes and control my personal expenses (e.g., expense and revenue spreadsheet).	0.682	0.727
I establish financial targets for the long term that influence the managing of my expenses.	0.651	0.735
<b>Financial satisfaction (EV = 14.30%; CR = 0.935)</b>		
I am satisfied with my financial situation.	0.847	0.904
I am satisfied with my preparedness to meet emergencies.	0.838	0.900
I am satisfied with my saved money.	0.805	0.837

Source: own

Note: LD = Loading; CM = Communalities; EV = Explained variance; CR = Cronbach's alpha. Extraction method: Principal component analysis. Rotation Method: Varimax with Kaiser normalization. Rotation converged in 6 iterations. Kaiser-Meyer-Olkin measure of sampling adequacy = 0.895. Sig. Bartlett's test < 0.001. Coefficient loading displayed > |0.40|.

indicator loadings were above 0.7. After the Varimax rotation, the total explained variance was 79.87%, which is a considerable value. Regarding scale reliability, all constructs were above the conservative threshold of 0.7 (Hair et al., 2010), indicating a good internal consistency for all measured constructs (see Tab. 2).

### 2.3 Method

Two-step hierarchical multiple regression was performed to test the effects of financial attitude, financial knowledge, financial behaviour, financial advice, and financial satisfaction along with demographic variables on financial capability. The adopted method is helpful to test the impact of the inclusion of variables in the forms of blocks into the analysis. The two indicators which measure financial capability were analysed separately to investigate the difference between them. Thus, two regressions were executed. By pursuing this line of examination, one can explore whether the two proposed indicators have similar behaviour or not. If there is no substantial difference, then the two indicators can be used to measure financial capability.

In the current research, in both regressions, the first block of variables consists of demographic ones such as age, gender, employment status, material status, and income. In the second step, five variables were included, i.e., financial knowledge, financial attitude, financial behaviour, financial advice, and financial satisfaction. By acting thus, this type of regression can inform one about the contribution of each set of variables to the explanation of the dependent variable (Pallant, 2016). The dependent variable stands for financial capability. The difference between the two regressions clarifies the significance of the model with two different financial capability indicators. All analyses were done using computer statistical software SPSS version 23.

Common method variance is a kind of problem that happens in data collection through a questionnaire. Therefore, if any problem occurs in a data collection thorough questionnaire, this CMV may become a major reason to worry (Chang et al., 2010). To check whether the common method variance is an issue or not, Harman's single factor test and a series of pre-tests aiming to clarify the measurement items were executed in the research (Podsakoff et al., 2003). According to the principal axis factoring, the first factor accounted for less than half of

the variance (40.30%), thus satisfying the respective requirement. Therefore, it can be concluded that common method variance is not a critical issue in the current study.

### 3. Research Results

The results of the two performed hierarchical regressions are summarised in Tab. 3. In the first step of the two regressions, only control variables are included as predictors, whereas in the second step, financial constructs are added. The dependent variable in the first regression is the statement related to the use of electronic payments. Results showed that all control variables are statistically significant and explain 25.4% of the variance. Hence, being single ( $\beta = 0.379$ ;  $p < 0.01$ ) and having a university diploma ( $\beta = 0.355$ ;  $p < 0.01$ ) positively affects the use of electronic payment, while males ( $\beta = -0.333$ ;  $p < 0.05$ ), non-active labours ( $\beta = -0.727$ ;  $p < 0.01$ ), and having less than 1,500 EUR ( $\beta = -0.5$ ;  $p < 0.01$ ) negatively influences the use of that payment mode. The second step of the regression demonstrated that all financial constructs positively affect the use of electronic payment modes. The strongest effect size originated from financial satisfaction ( $\beta = 0.363$ ;  $p < 0.001$ ) followed by financial behaviour ( $\beta = 0.246$ ;  $p < 0.001$ ), and the lowest one from financial knowledge ( $\beta = 0.123$ ;  $p < 0.05$ ). Therefore, evidence supported  $H1-5$ . The inclusion of these variables increases the explained variance by 20.8% ( $F = 16.39$ ;  $p < 0.001$ ), which is a huge contribution, pointing to the vital role of financial constructs in explaining the individuals' behaviour towards the use of electronic payment mode for paying bills.

In the second regression, the dependent variable is the standard statement used to measure financial capability, which deals with day-to-day financial matters. The analysis reveals that 19% ( $F = 9.188$ ;  $p < 0.001$ ) of the variance is explained by the control variables. Hence, similar to the first regression, males ( $\beta = -0.237$ ;  $p < 0.05$ ), non-active labours ( $\beta = -0.407$ ;  $p < 0.01$ ), and having income less than 1,500 EUR ( $\beta = -0.562$ ;  $p < 0.01$ ) negatively impacts the individuals' capability to deal with day-to-day financial matters. The second step of the regression shows that, excluding financial attitude ( $\beta = 0.06$ ;  $p > 0.05$ ), the other financial constructs positively impact the individuals' day-to-day financial matters (see Tab. 3). Therefore, the data rejects  $H2$  and supports the

Tab. 3: Results of the two hierarchical regressions

Variable	Use electronic payment		Day-to-day financial matters		Diff.
	Coefficient	Coefficient	Coefficient	Coefficient	Z
Constant	3.495 (0.14)***	3.28 (0.13)***	3.588 (0.13)***	3.435 (0.12)***	-0.898
Single	0.379 (0.14)**	0.296 (0.12)*	0.078 (0.13)	-0.001 (0.11)	1.809*
Male	-0.333 (0.13)*	-0.148 (0.12)	-0.237 (0.12)*	-0.109 (0.11)	-0.249
Non-active labour	-0.727 (0.21)**	-0.355 (0.19)	-0.407 (0.19)*	-0.131 (0.17)	-0.869
Income < 1,500 EUR	-0.5 (0.13)***	-0.05 (0.13)	-0.562 (0.12)***	-0.215 (0.12)	0.907
University diploma	0.355 (0.13)**	0.226 (0.12)	0.155 (0.12)	0.051 (0.11)	1.124
Fin_knowledge		0.123 (0.06)*		0.119 (0.05)*	0.050
Fin_advice		0.199 (0.06)**		0.128 (0.05)*	0.888
Fin_attitude		0.199 (0.05)***		0.06 (0.05)	1.906*
Fin_behaviour		0.246 (0.05)***		0.282 (0.05)***	-0.509
Fin_satisfaction		0.363 (0.06)***		0.31 (0.05)***	0.694
R-squared	0.254	0.462	0.190	0.407	
R-squared change		0.208***		0.217***	
F-statistic	13.32***	16.39***	9.188***	13.12***	

Source: own

Note: \*\*\* < 0.001; \*\* < 0.01; \* < 0.05. Standard errors are given in parentheses. The last column reports the results of the statistical test to check whether the regression coefficients differ significantly in the two cases. Multicollinearity is not a problem: all tolerance values are above 0.10, all VIF values are below 10, and the condition indices for the seven predictor variables are below 15.

other hypotheses when the dependent variable is day-to-day financial matters. Moreover, the explained variance increases from 19% to 40.7% ( $F = 13.12$ ;  $p < 0.001$ ), demonstrating the crucial role of financial constructs in explaining one's capability to deal with day-to-day financial matters.

To investigate whether the two selected measures of financial capability reflect similar results or not, an additional test was performed (Z-test). According to that test, two differences between two hierarchical regressions are noted (see the last column in Tab. 3). The two variables were 'single' ( $Z = 1.809$ ;  $p < 0.05$ ) and 'financial attitude' ( $Z = 1.906$ ;  $p < 0.05$ ), as they were significant for the first regression and insignificant for the second one. It seems that financial attitude is more related to the use of electronic payments mode than one's capability to deal with day-to-day financial matters. As the theory of planned behaviour (Ajzen, 1991) claims, behavioural intention proceeds actual behaviour and results from attitude. Based on

these results, it can be concluded that the two statements used to measure financial capability reflect similar behaviour. This finding leads to the fact that financial capability can be measured as a composite scale of the above-mentioned statements. Both statements point to how capable an individual is in dealing with financial matters. Consequently, the authors recommend that scholars use a more comprehensive scale to measure financial capability, as our research demonstrates that the two statements used to measure financial capability manifest similar results.

#### 4. Discussion

The debate between financial literacy versus financial capability is still ongoing. More and more attention is being paid to financial literacy and capability by focusing on its elements and consequences (Feng et al., 2019; Lusardi & Mitchell, 2014; Luukkanen & Uusitalo, 2019; Potocki & Cierpiat-Wolan, 2019). Since the ultimate objective of the paper is to determine

the factors affecting financial capability, the outcomes of the paper reflect results concerning the links between elements of financial literacy (financial attitude, financial knowledge, and financial behaviour), financial advice, financial satisfaction, and individuals' financial capability as well as its measurement scale. The study's outcome is two-fold: one is related to the factors affecting financial capability, and the other is related to the financial capability measurement scale.

First, all framed hypotheses showed positive associations with financial capability, supporting *H1*, *H2*, *H3*, *H4*, and *H5* as per the first scale assessment, which using electronic payment mode use. Among all, financial satisfaction and financial behaviour proved to be strong influencers on financial capability, and the weakest was financial knowledge, meaning that the improvement in financial behaviour upgrades individuals' financial capability. It is in line with the previous studies in a similar field (Potocki & Cierpiał-Wolan, 2019; Serido et al., 2013; Vlaev & Elliott, 2017). Moreover, financial satisfaction reflects a positive association with financial capability matching similar results from Xiao et al. (2014). As for the second measure, which revolves around the day to day financial matters, it was revealed that, except for financial attitude, all other financial constructs were found to be significant, and this result is in line with a similar study (von Stumm et al., 2013), indicating that *H2* was partly supported. An increase in financial knowledge increases financial capability, as supported already from other studies (Çera & Tuzi, 2019; Chowa et al., 2014; Potocki & Cierpiał-Wolan, 2019; Rothwell et al., 2016; Serido et al., 2013; Xiao et al., 2014). Financial advice has a significant effect on financial capability, as indicated by prior studies (Georgarakos & Inderst, 2011; Johnson & Sherraden, 2007).

Second, the outcomes for both of the chosen indicators of financial capability specified a huge input of financial constructs and showed the vital role of financial constructs in elucidating the individuals' behaviour towards the usage of electronic payment mode for paying bills and dealing with day to day financial matters. Based on these results, it can be concluded that the two statements used to measure financial capability ('use electronic payment' and 'day-to-day financial matters') displayed homogenous behaviour. Therefore,

this outcome drives home another reality that financial capability can be better assessed through the compound scale than through the single scale measurement encountered in similar studies (Çera, Phan, et al., 2020; Potocki & Cierpiał-Wolan, 2019; Xiao & O'Neill, 2016). Both statements/indicators point to how capable an individual is in dealing with financial matters and that in itself is considered a novelty of the present study. Therefore, this investigation can help readers and research scholars design their study in such a way as to be able to use an improved scale for financial capability measurement.

This paper offers considerable implications for governments, public-policy promoters, educational institutions, and the financial industry to design strategies/policies to improve individuals' financial literacy since an improved financial literacy level leads to higher financial capability. Authors believe that this is the first attempt to investigate the influences of financial satisfaction along with financial advice and financial literacy on financial capability. Therefore, the chosen financial constructs are important in explaining individuals' financial capability.

## Conclusions

The present study has two useful implications. Based on the concept of 'capability' as given by Sen (1993), the current analysis shows that individuals' financial capability can be achieved by increasing financial knowledge and behaviour, along with financial advice and satisfaction. In this regard, the results complement the existing studies and add to the literature concerning the effect of financial advice and financial satisfaction on financial capability. The study covers wide-ranging financial constructs to comprehensively predict financial capability since the previous studies have not covered any such combinations. The only insignificant variable, i.e., financial attitude, competes against the previous studies (Sherraden & Ansong, 2016). Therefore, an extra effort is needed to discriminate between the meaning and measurement of financial attitude and financial capability. It could be said that financial capability can be measured even better through an improved scale. It is yet another positive aspect added to the existing literature. Previous studies measured financial capability through a single indicator, but the

current study evaluated it through the two chosen indicators. The results were significant and reflected similar behaviour reiterating that financial capability can be better measured by employing the improved scale. Therefore, another novelty of the study indicates that the new composite scale ('use electronic payment' and 'day-to-day financial matters') can be applied for better financial capability measurement.

The paper offers valuable implications of theoretical application, academic consideration, and practical implementations. The study outcomes turn out to be advantageous for policymakers and managers of educational institutions in Spain. They are encouraged to embrace or design new syllabi, rules, and plans to ramp up the individuals' financial capability. Based on the findings, the authors have a keen interest in recommending certain things. First, to improve financial capability, there is a need to increase financial advisory services by individuals in routine financial decision-making, as it affects financial capability directly. However, to achieve this, financial advisory services must be available at an affordable price and in all segments of society. Second, gaining financial happiness can improve individuals' financial capability. Therefore, like few previous studies, financial satisfaction can be a means of achieving financial capability, not an end itself. Lastly, new factors can also be explored apart from the traditional established factors affecting financial capability in the highly volatile and constantly changing environment.

In terms of generalization of its findings, although the statistical method revealed significant relationships in the context of Spain, there are limits in the study to generalise it to other countries. This limitation can be overcome with further research by replicating the study in other countries. In addition, the statistical test used to compare the results of two regressions would be followed up by a more rigorous method. For instance, composing financial capability with two or more indicators would be one way.

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