Research Paper

Financial Aptitude: A Necessary Competence in a Consumer Society

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ABSTRACT

A quantitative study was conducted to determine the level of financial aptitude based on test items organized in the aspects of Administration, Savings and Investment, Security, Credit and Purchasing. The instrument was applied to (n=308) members of a university community located in Cuernavaca, Morelos, Mexico. The information was processed in SPSS version 22 using a bivariate Pearson correlation analysis and subsequently, a multiple regression analysis was applied. The results show that there is a high correlation of the financial aptitude with the aspects of Financial Administration (0.948), Savings and Investment (0.751), a medium correlation with Insurance and Property (0.573) and Purchasing (0.546), and an inverse correlation with the aspect of Debt.

Key words: Financial aptitude, financial education, personal finances, individual competencies.

INTRODUCTION

Competences

The definition of "competence" according to the behavioral vision of McClelland, while focused on the professional activity of the individual involves sub-competences manifested in behavior indicators which have expanded to areas that range from the social to economics, given its multiple meanings. According to the proposal of Jurado (2009), the competences from this diversity of ideological perspectives are conceptualized as the learned capabilities in either a formal or informal manner, obtained in an environment in school, socio-cultural or as a product of experience, by which individuals face a situation with a favorable result. Or as Barnett defines, the competences correspond to the operative and practical know-how, with which we face "the world of life"; through which people may develop efficiently using the knowledge they possess and can be displayed in a natural manner; knowledge which gives rise to a self-learning and self-renovation process (Barnett, 2001) requires to be expressed for the construction of desirable results. Such learnings are communicated or manifested either from the cognitive (know) area, the thymic (affective) or pragmatic (action) (Greimas and Courtés, 2003), for the construction of routine or a better future; which requires the participation of the individual in the corresponding context.

In spite of its meanings, the term competence whether from the behavioral approach of McClelland, the cognitive approach of Chomsky or the generic approach of Mulder, possesses a combination of meanings that are related and can be categorized from the institutional, legal, organizational and personal, as well as, classified into two essential meanings that have to do with the authority and the capacity; authority in the sense that has to do with the person possessing the license or right to decide, produce, serve, act, exercise or dispute something, and the capacity in the sense of having the knowledge, the abilities and experience to carry out an action or activity (Mulder, 2007). These meanings provide guidance for decision making in any area in the life of a person through a rational and conscious process, prior evaluation of the alternatives it has, for the choice of the best possible alternative, according to the circumstances of the individual-context found from this perspective at the end of a competence in a wider and integral concept, that has to do with the improvement of the individual's
performance (Gilbert, 2007).

It is worth noting that the scholars of the improvement of performance in decision making, have turned to the organizational field, as explained by authors like (Achterhagen, 2005; Colardhy, 1998; Delamare Le Deist and Winterton, 2005; Ellstrom, 1998; Madon and Sulzer, 1998; Mériot, 2005; Mulder, 2014, 2007; Norris, 2006; Straka, 2004) and few have focused on the performance from the individual perspective, which allows the competitiveness of the individual to rise; given the need of the interactions which the individual faces on a daily basis, requiring enough competence to face the globalized and consumer oriented world in which the economic exchange takes place in an easy and permanent way, in most places where is expected that its decisions emerge for the benefit of not only the labor market which it faces, but also for the rational use of the resources at its disposal; a rationality that forces it to acquire the fundamental competences for its "world of life" (Barnett, 1994: 3; Climent, 2009), the so-called "key competences" (Rychen and Saganyk, 2006) which lead him to act in an active and responsible way in the construction of his personal and social life project and thus to his success (OCDE, 2005; Weinert, 2004).

**Education and financial aptitude**

Education is being understood as a process of socialization where people achieve the transmission of knowledge, abilities, customs, ideas and values that produce diverse and affordable learning outcomes (OCDE, 2004) both in time as well as in space and is also adaptable to other changes of life (Delors, et al., 2007; Singer, 2008) requiring wholeness given that it is part of the economic and social transformation of the individual (Sierra, 2004; Murillo and Román, 2010; SEP, 2013).

Within this wholeness, there is room for financial education which normally involves two basic elements: the stability of the financial system and the stability of people (BBVA, 2010); in which the latter demands the tools for money management, savings, investment and credit; which subsequently impacts on the stability of the financial system and with it, the support of central banking. The objective of financial education is to develop in individuals the knowledge, capacity and abilities in order to take better decisions in financial matters; which is achieved in a formal or in-school system, as well as in the informal one and in the formal environment by means of training (Coates, 2009).

The proposal on financial education by the OCDE (2013) articulates the competences of money management, planning and procurement, risk and retribution and the financial environment in which the person functions; these dimensions coincide with the proposal on financial education by the National Commission for the Protection and Defense of Users of Financial Services- Condusef (2009).

The need for a more efficient manner of money management, requires people to equip themselves with the tools and abilities needed in order for their income, the way in which they exchange goods and services, the analysis of the different forms of payment they use, the way in which they invest their money, the loans, among other variables may be analyzed in favor of their benefit, given that the money suffers a loss due to inflation, that is to say, a peso today is not equivalent to a peso tomorrow.

In this group of variables are included savings and investment that evaluates the manner in which part of the income is saved and how it is spent afterwards to achieve goals. The planning and procurement allows the administration of income and expenses in the short term as in the long term, identifying the different types of income and expenses which the person must incur in a responsible manner; in this respect, Kapoor et al. (2011) proposed personal financial planning as the process by which people manage their money in order to achieve economic satisfaction; meanwhile, Ryan (2015) points out that it is the first step that must be rehabilitated in order to reach a positive financial aptitude. With respect to the risk and redistribution as a component of financial education, the idea is that the person acquires the abilities to identify, procure and balance those situations that could, at any given moment, diminish his financial stability, either for his own fault or an unintentional external cause.

As far as the financial environment is concerned, the idea is to know the basic characteristics of the financial world and its implications, as a result of the changes in the economic and political conditions, as well as other variables which impact or could impact on its stability (OECD, 2013; Condusef, 2009).

From the conceptual vision of competence previously discussed and based on the construction of knowledge the individual acquires, either in a formal, informal or through practice in which competences allow him to improve the activities that he carries out daily and in his life situation, the essential ones needed to approach financial matters from the dimensions discussed which require abilities that transcend the limits of the profession, exhibit forms of behavior that require his intervention and finally, procedures that allows him to keep organized, equivalent to the competence of specialty, methodological competence, social and participative competence, categories which were respectively proposed by Bunk (1994) are acquired through diverse experiences, among them, the educational.

It is assumed then, that the financial aptitude is the ability of a person for the management of his financial matters and it is related to the education received in that regard, either formal or informal (Xiao, 2008), whose purpose is to improve the financial knowledge and behavior (Kozup and Hogarth, 2008). For this reason, countries and especially those with an emerging economy must worry about the development of these competencies in their population, given the recurrent economic crisis.
and the constant transformations of the market which they face, which orientate consumers to the consumption of non-essential products. In this regard, the OCDE itself points to financial education as a complementary aspect to the regulation and supervision efforts of the financial system and to consumer protection (OCDE, 2009).

To O’Neill (2006), the quality of financial education improves the personal financial behaviors and reveals a positive state of health; in this case, Hong and Swanson (1995) showed that it is an important factor to explain the financial situation of a person; in the same manner, Prawitz et al. (2006) points to financial education as a conditioning factor a low prosperity that results in low work productivity.

From the previous proposals and based on the financial aptitude instrument developed by O’Neill (2003) and the financial education models that Mexican financial institutions carry out as part of their social intervention programs in which variables considered such as: savings, credit, credit health, insurance, education, assets, planning, investment, retirement and expenditure among others; an inclusive model of financial aptitude consisting of 5 areas is proposed: financial administration, savings and investments, securities and assets, credit and purchases (Santander, 2015; Bancomer, 2015; Condusef, 2015) (Figure 1).

The financial administration includes the way of managing income, expenses and financial obligations of the individual; savings and investment refers to setting goals and the determination to reach them; the dimension of security and assets observes the planning capacity of the individual, that is to say, the capacity to analyze the current variables that could modify the achievement of his goals; the topic of credit or what is related to managing personal leverage and finally, the topic of purchases to visualize the behavior of the consumer in the market.

**METHODOLOGY**

A quantitative exploratory investigation of a transversal description order was carried out in field at an educational community, which allowed identifying the financial aptitude of the population in a faculty at a higher education institution.

The size of the sample selected by convenience with proportional allocation according to the educational program and semester was of 308 people out of a total of 2533 in the entire population. The formula which corresponds to estimation by intervals in a finite population was utilized with a probability of occurrence of 0.5 and a level of confidence of 95%. The selection criterion of the participants was aleatory; using the class lists provided by the Academic Office, they were numbered and chosen for the application of the financial aptitude instrument.

**Figure 1.** Financial aptitude model of five dimensions. Source: Elaboration by the authors in Power Point for Mac.
Using the Financial Aptitude model of 5 dimensions, previously explained, which includes: Financial administration, savings and investment, insurance and assets, credit, and finally purchases which permits the establishment of the three levels of financial aptitude in low, moderate and high; the statistic analysis was carried out with the help of SPSS v. 22 for Mac, considering the establishment by Rojas (2003), who expresses that one or several characteristics of the population allowed to explain the phenomenon under study, which, in the case of this investigation is the financial aptitude of an educational community in an institution of higher learning facilitated including socio-demographic variables to the instrument. The instrument reported a reliability of Cronbach’s alpha (0.05 and 308) of 0.865 parameters which allowed confirming the consistency of the test items so as to generate valid inferences about the phenomenon under study. In this case, the financial aptitude, which leads to the acceptance of the null hypothesis where it is shown that the population presents a normal behavior and the variables among men and women in relation to the financial aptitude are equal. The asymmetry coefficient of the studied population was 0.342 with a significance of 0.139 and a kurtosis coefficient of -0.029 with a significance of 0.277, inferring the existence of right asymmetry with a meso-kurtic distribution (Figure 2).

It is worth mentioning that given the exploratory nature of the investigation, it may be that the Cronbach alpha value is 0.6 or 0.5 (Nunnally and Bernstein, 1994; Oviedo and Campo-Arias, 2005).

RESULTS

The statistical analysis produced the following results: the financial aptitude is highly correlated with the dimensions of Financial Administration (0.948) and Savings and Investment (0.751); moderately correlated with Insurance and Assets (0.573) and Purchasing (0.546); all of them correlated at 99% according to the bivariate Person test (Table 1).

The credit dimension is inversely correlated to the dimensions Savings and Investment (-0.224) and Insurance (-0.353) and has a low correlation with the Purchases dimension (0.082) and Financial Aptitude (0.023).

Subsequently, according to Hernández (2013), a multiple regression analysis was done to determine the level of financial aptitude, whose results of the coefficients are shown in Table 2 and Equation 1. Equation 1 is given as:
Table 1. Bivariate correlations of the financial aptitude and its dimensions.

<table>
<thead>
<tr>
<th>Bivariate correlations</th>
<th>Financial aptitude</th>
<th>Financial administration</th>
<th>Savings and investments</th>
<th>Insurance</th>
<th>Credit</th>
<th>Purchasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>1</td>
<td>0.948**</td>
<td>0.751**</td>
<td>0.573**</td>
<td>0.023</td>
<td>0.546**</td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.687</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pearson de Correlation</td>
<td>0.948**</td>
<td>1</td>
<td>0.623**</td>
<td>0.463**</td>
<td>-0.034</td>
<td>0.388**</td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.550</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.751**</td>
<td>0.623**</td>
<td>1</td>
<td>0.553**</td>
<td>-0.224</td>
<td>0.284**</td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.573**</td>
<td>0.463**</td>
<td>0.553**</td>
<td>1</td>
<td>-0.353</td>
<td>0.102</td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.023</td>
<td>-0.034</td>
<td>-0.224**</td>
<td>-0.353**</td>
<td>1</td>
<td>0.082</td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.687</td>
<td>0.550</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.150</td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.546**</td>
<td>0.388**</td>
<td>0.284**</td>
<td>0.102</td>
<td>0.082</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.073</td>
<td>0.082</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>308</td>
<td>308</td>
<td>308</td>
<td>308</td>
<td>308</td>
<td>308</td>
</tr>
</tbody>
</table>

Source: Own information from the investigation with data extracted from SPSS v 22 for Mac.

Table 2. Linear regression model of financial aptitude.

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Non-standardized coefficients</th>
<th>Standardized coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Standard error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-6.40E-14</td>
<td>.000</td>
</tr>
<tr>
<td>Financial Administration</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>Savings and Investments</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>Insurance</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>Credit</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>Purchases</td>
<td>1.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

a: Dependent variable: Financial aptitude. Source: Own information from the investigation with data extracted from SPSS v 22 for Mac.

Being:

\[ \text{ApFi} = -6.40E-14 + (0.657 \times \text{AdFi}) + (0.220 \times \text{Aei}) + (0.176 \times \text{Se}) + (0.140 \times \text{Cre}) + (0.199 \times \text{Co}) \]

savings and investment, which may be appreciated in Figure 3.

Conclusions

The financial aptitude is highly correlated with the dimensions financial administration and savings and investment. This relationship indicates that good administration, saving and investment of money, are indicative of an adequate financial education, that is to say, they show that the person is competent in the management of these variables according to what Kozup and Hogarth (2008) proposed which in turn the management of Insurance and Purchases affect moderately the financial behavior of the individual. The negative correlation of the credit dimension confirms from the point of view of the previously cited author, how as...
indebtedness increases, the financial aptitude decreases, showing an inadequate financial education, although the leverage is healthy up to a certain point.  

Addressing what was described by Jurado (2009), it may be inferred that when people are more indebted, it may be said that their formal or informal environment did not promote the competencies or capabilities that would allow him or her to face a favorable financial situation, that is to say, high financial aptitude thus preventing the construction of a better future or what is equivalent (Barnett, 2001). Gilbert (2007) opined that self-instruction was set aside preventing the improvement of the financial performance of the individual.

The regression model confirms that the financial education is a competency that must be developed in an immediate manner, orienting public policies towards the inclusion of this in the formal educational system in favor of a better financial aptitude, especially if nowadays the credit indicators of people show in the last few years and increase up to 145% in Mexico (Condusef, 2015).

**DISCUSSION**

It is important to point out that there is lack of wider studies on the subject, given that each day it is confirmed that the importance of the inclusion and financial education of and in people, consequently, the development of these competencies is of fundamental importance not only for individuals but as well as for nations.

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