Personal Finances and Current Challenges: a Research with University Students to Structure a Financial and Pedagogical APP

Finanças Pessoais e Desafios Atuais: uma Pesquisa com Estudantes Universitários para Estruturação de APP Financeiro e Pedagógico

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ABSTRACT

Objective: To analyze the determinants of personal finance management of undergraduate students and propose a log ical structuring of a financial application (App) for mobile phones with an easy-to-use look and format, maintaining the technical requirements for the control and planning of per sonal finances, based on in accounting-financial concepts. Methodology: As for the methodological aspects, it adopted a quantitative approach for selecting and reducing the rele vant factors of financial management, in the structural equa tions model. The collection took place in the period before the closing of face-to-face classes in 2020, with the sending of questionnaires to undergraduate students of the courses in administration and accounting sciences and other areas, at the State University of Midwest Paraná. Results and Dis cussion: A return of 300 valid responses was obtained, which made it possible to understand the preferences and gaps for financial management of the studied public. After developing the analysis steps, the structuring phase for programming a financial application was started. Conclusion/Contributions: As a strong point of the work, the students' immersion in the stages of research and development of the proposal, in this way, it was a source of knowledge for the students and could be better disseminated. there is the possibility of it becoming an instrument for educational use in a university and pre-uni versity environment.

Keywords: Information Technology, Financial Controls, Finan cial Applications, Innovations in Education

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RESUMO

Objetivo: Analisar os determinantes da gestão das finanças pessoais dos estudantes de graduação e proposta para estruturação lógica de um aplicativo financeiro (App) para celular com visual e formato de fácil uso, mantendo os requisitos técnicos para o controle e planejamento das finanças pessoais, baseado em conceitos contábil-financeiros. Metodologia: Quanto aos aspectos metodológicos, adotou uma abordagem quantitativa para seleção e redução dos fatores relevantes da gestão financeira, no modelo de equações estruturais. A coleta deu-se no período que antecedeu o fechamento das aulas presenciais em 2020, com o envio de questionários para os estudantes de graduação dos cursos de administração e ciências contábeis e outras áreas, da Universidade Estadual do Centro-Oeste do Paraná. Resultados e Discussões: Obteve-se um retorno de 300 respostas válidas, que possibilitaram compreender as preferências e gaps para gestão das finanças do público estudado. Após desenvolver as etapas de análise foi iniciado a fase de estruturação para a programação de um aplicativo financeiro. Conclusão/Contribuições: Como ponto forte do trabalho destaca-se a imersão dos estudantes nas etapas da pesquisa e desenvolvimento da proposta, desse modo, foi uma fonte de conhecimento para os estudantes, que possibilita compreender os processos da gestão financeira pessoal. Em trabalhos futuros, existe a possibilidade do mesmo se tornar um instrumento de uso educacional em ambiente universitário e pré-universitário.

Palavras-chave: Controles Financeiros, Finanças Pessoais, Tecnologia de Informação; Aplicativo Financeiro-Contábil, Tecnologia *Mobile*

Introduction

The indebtedness of income of Brazilian families is a reality before the Covid-19 pandemic. Historically, purchases in installments is a way that a large part of the population has been using. Therefore, a scenario of easy access to consumption, through credit and terms offered by companies, whose interest rate can exceed the margin of 22% per month. Such facilities attract consumers, who envision the possibility of being able to acquire goods that would take years to save. Thus, default becomes a major social problem, also in the business environment, which deals with losses related to the lack of receipt of sales made and also the expenses of making a possible collection.

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Default is characterized by non-compliance with an obligation within the agreed period, this partial or total non-compliance occurs in disagreement with the contractual rules, this non-payment of the previously agreed debt, can be due to several factors (TRENTO, 2009).

The population's degree of indebtedness is largely due to credit facilities, especially credit cards, which, according to a survey carried out in 2020 by "Valor Econômico Magazine", 77.6% of Brazilians consider to be the main form of indebtedness. But possibly such systemic indebtedness cannot be attributed solely to credit and income customs.

When dealing with finance today, it is necessary to emphasize the participation of mobile technologies, which have been transforming personal and organizational habits, bringing facilities and challenges at the same time (MEIRELLES, 2021; MARCOLIN; FREITAS; BEHR, 2014).

These elements initially motivated the research and development of the finance planning and control instrument, raising the following questions: How do undergraduate students currently plan their finances? And how could an easy-to-use financial app help with personal finances?

The research aims to contribute to the understanding of the factors that trigger the financial behavior of individuals, starting from research with undergraduate students, adopting essential finance concepts to later propose the development of an easy-to-use financial application directed to the Android Operating System ®.

Thus, the objective of this research stands out, which consists of presenting a proposal for the logical structuring of a financial application for mobile phones with an easy-to-use look and format without losing the technical characteristics for the control and planning of personal finances, based on accounting concepts-financial.

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Individual and Families Financial Planning

PERSONAL FINANCE MANAGEMENT VS CORPORATE FINANCE

Many issues that guide the financial management of companies also apply to individuals, for their finances and personal planning. The study of finance is multidisciplinary, according to MATIAS (2007) it is impractical to approach its content in a totally separate way. Prior knowledge of accounting, for example, is an indispensable prerequisite for understanding the subjects dealt with by Finance.

The financial planning process is fundamental for organizations and managers, as it provides guidelines to guide and coordinate initiatives in order to achieve their objectives. This process should provide for long-term financial plans and even short-term implementations and budgets (GITMAN; MADURA, 2008).

In Ross, Westerfield and Jordan (2008) they list the elements that structure the main questions about corporate finance: (a) What long-term investments should be made? For business - facilities, machinery, etc.; (b) What will be the sources of funds for such investments? Own funds or borrow? (c) How to manage day-to-day activities such as customer billing and vendor payments. The authors point out that these issues are not the only focus of finance, but it can be summarized in fundraising and application of these resources in the activity, according to each business goal, including non-profit entities.

In general, personal financial management consists of confronting the inflows and outflows of resources, the result of the inflows deducted from the outflows of resources can be positive or negative, in this situation of financial deficit, loans are resorted to, debts are contracted and financial burden due to lack of resources.

FINANCIAL CONTROL INSTRUMENTS

Starting from the premise that accounting has organizations as its object - of all legal formats, purpose and size, that these are composed of people, starting with their directors, employees, collaborators, suppliers and customers and the entire network of people that make up the functional structure of companies that generate services, income, development and systemic wealth. The uncertainties and financial problems of individuals can directly or indirectly affect the company, especially in family businesses.

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Financial administration is a science, which if put into practice can change the way of managing and planning, it goes beyond conjectures, experiences and extrapolation to the area of calculation, quantification and objectivity. It is the search for the use of science in money management (LEMES-JUNIOR; CHEROBIN; RIGO, 2017).

According to SEBRAE (2020), small businesses represent an average of 95% of national entities, and a well-structured financial control is essential for the success of the company, with the management of operations to keep the "Cash Flow" organized.

As mentioned, it is common to find the fundamentals of finance aimed at business management. But financial controls for people are equally important and can be proposed from the input and output structure, as a simplification of the elements of the Cash Flow statement.

People are learning more about the value of what they earn and also how to make good use of any financial leftovers, aiming at greater convenience in the future. Effectively managing each person's individual earnings and expenses is what is known as personal finance (ASSAF NETO, 2009).

FINANCIAL PLANNING (CASH FLOW) IN PERSONNEL MANAGEMENT

According to the literature studied on basic concepts of financial management, Gitman and Madura (2008), Assaf Neto (2009), Lemes Junior et al. (2017), the movement of resources is made of inputs and outputs. The inflows or source of financial resources can be regular - inflows resulting from receipt of income or sale of assets and can vary according to the financial activity carried out, or external sources are characterized by loans from third parties, for example.

Regular outings are made up of expenses that may vary in terms of monetary value, however, they occur monthly or in a repeated period of time, for example: Expenses for personal maintenance, housing, education, clothing, leisure, etc. As proposed. Without making a more rigorous classification of outputs, charges such as interest paid to third parties, tax expenses, among others, are added. Irregular outflows are understood as unexpected expenses, such as the acquisition of fixed assets, unexpected expenses, losses, among others.

In order to carry out financial control and specific calculations, regardless of the use of the organization or for the individual, the focus of this work, it is currently essential to use a technological instrument, a system or application for practical use.

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Therefore, this work explored the stages for the development of this control technology based on the fundamentals of Cash Flow.

The cash flow, in summary, aims to show receipts in a given period compared to obligations payable (expenses due in the same period). The FC will manage the set of operations, inflows and disbursements of cash over a period of time, consisting of the dynamic representation of the financial situation. It is usually organized into three sections: cash inflows, outflows (disbursements) and results (ZDANOWICZ, 1995; MATIAS, 2007; ATKINSON et al., 2015).

Therefore, it is an instrument of great importance, as it makes it possible to indicate in advance the financial situation, the commitments assumed to align with receipts, providing the programming and adjustments of disbursements for periods in which budgeted inflows are low.

CLASSIFICATION OF THE INDIVIDUAL'S FINANCIAL SITUATION

From the direct comparison and by period, which is normally monthly, the financial result is obtained, which in simpler language consists of "balance control". This nomenclature is familiar in the control of personal finances, especially due to bank transactions. But after all, how can it be clearly analyzed if an individual has a financial "health" inspiring care? Siqueira and Vilela (2019) used a scale of information and behavior in relation to finance, for which an adaptation was made in this work (Frame 1).

Frame 1 Financial profile to be applied in the research

Profile	Description
Effective (EFIC)	The Person has control of your finances, plan and make debts and also save resources for long-term investments.
Controlled (CONTR)	The Person has control over his finances, he makes debts, but he always manages to pay them.
Indebted (ENDIV)	When people have no control over their income and expenses, have bad financial habits, pay interest to financial institutions (banks, credit cards), are consumerists, accumulating debts.

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Indefinite/neutral (INDEF)	(Pre-finances), in the survey, students for whom it is not possible to identify the financial profile and/or are indifferent to the planning and control processes.

Adapted Source: Siqueira e Vilela (2019)

IMPACT OF THE USE OF CELL PHONES AND APPLICATIONS ON FINANCIAL TRANSACTIONS

Analyzing data from the last five years, it is possible to understand the explosion in the use of portable technological devices. The Brazilian Institute of Geography and Statistics (IBGE) in December 2016 already revealed that 138 million Brazilians had at least one smartphone. In the age group of 25 to 34 years, more than 80% of the population has this device, currently even more accessible and an indispensable item. Mobile devices are used for everything: shopping, browsing, chatting, accessing social media and much more.

In Brazil there is a growing use of cell phones (smartphones). With information from the 32nd Edition of the annual Survey of IT Use, FGV-CIA, coordinated by Meirelles (2021), it is possible to understand how the mobile market has advanced.

The potential for using technology resources in Brazil is high. Regarding the number of smartphones, the survey shows that there are more than 1 smartphone per inhabitant in use in Brazil, in 2020 the survey identified 234 million smartphones, which is already greater than the population and computers, cell phones present a scenario of increasing penetration , research in 2021 found this growth trend, an average of 242 million smartphones in use in Brazil, including notes and tablets, are 346 million portable devices in use (MEIRELLES, 2021).

To better understand these numbers, IBGE releases estimates of the population residing in the 5,570 Brazilian municipalities, with a reference date of July 1, 2020. On that date, the population of Brazil reached 211.8 million inhabitants, growing by 0.77% compared to 2019.

Brazil is the third country that most installs finance applications in the world. 8.5% of all installs in Brazil are financial apps, more than double the global rate. And, 70% of the financial applications available in the country are digital banks (with little or no physical presence) and traditional banks (INFOMONEY, 2020).

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Method

RESEARCH STAGES AND CLASSIFICATION

The type of research used, it refers to a quantitative approach, with characteristics of applied and descriptive research. To support the proposed model, this work begins with bibliographical research, then field research and proposal of the application for testing, following the steps of: i) preparation of a structured questionnaire; ii) collection with undergraduate students, especially in courses in the area of Applied Social Sciences, at the University of Midwest Paraná (UNICENTRO); iii) elaboration of a logical design model for financial applications based on accounting-financial concepts.

STRATEGIES AND DATA ANALYSIS

The survey questionnaire was divided into sections, with questions and statements to capture personal perception and ways of dealing with the survey variables and with the following sessions.

Section 1	*Student opinion regarding the use of technology to control finances*
Section 2	*Influence received and personal training for financial education*
Section 3	*Planning and saving habits*
Section 4	*Personal financial profile and preferences*
Section 5	*Personal Data*

The Likert scale (1 to 5) was adopted, aiming to identify habits, decisions and important aspects of the financial behavior of academics. A pilot survey was carried out to adjust the questions and then the questionnaires were sent electronically and some classes collected directly with a form. A total of 300 responses were returned, which was the goal of valid responses from students, most of the Accounting and Administration Courses. The collection period was from February to March 2020 and from April to October 2020, the analyzes of the results were carried out, adopting the SPSS-IBM ® statistical software.

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RESEARCH VARIABLES

Aiming to understand the degree of income commitment, saving habits, spending planning, influences received from family and/or others and the use/acceptance of technology (table 1).

Table 1 Research variables

Variables		Method
Technology	Predictor	Structural Equation
Planning	Predictor	
Savings	Predictor	Regression
Family and Social Influences	Predictor	
Financial control	Dependent	

Source: Authors

The elements of financial behavior can be difficult to capture directly. Therefore, the research strategy adopted was to identify, through latent variables, the characteristics of personal finances with the initial research model (Figure 1).

Figure 1 Conceptual Model: Disclosure and Interactions of Variables

Source: Authors

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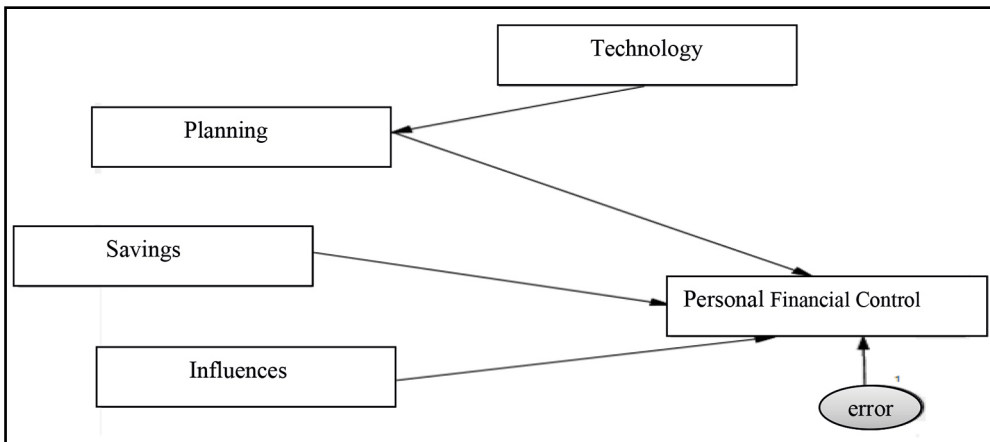
After the first rounds adopting the proposed initial model, based on the literature presented (containing variables that aim to identify relevant aspects of the individual's financial profile), the variables that did not present statistical relevance were removed.

Results Analysis

PRESENTATION OF RESULTS AND MODEL ADJUSTMENT MEASURES

Next, in the illustration with the adjusted model, it is possible to understand the direction and intensity that the model variables impact on Financial Control. The variable Influences" was more relevant in the direct and positive relationship with the financial control profile of the students in the sample.

Initially, it appears that the Kaiser-Meyer-Olkin test showed values above 0.8, which is adequate for the research and Bartlett's sphericity test, which met the significance P-value of 0.000. Continuing with the analyses, the values of the commonalities of the final model are presented, in which all components have values above 0.5.

Table 2 Commonalities

	Initial	Extraction
Tec1	1,000	,769
Tec2	1,000	,726
INF1	1,000	,720
INF2	1,000	,668
Poupa3	1,000	,670
Poupa2	1,000	,694
Plan3	1,000	,730
Plan4	1,000	,636
Plan5	1,000	,515
Financ1	1,000	,610
Financ2	1,000	,705
Financ7	1,000	,533

Note: Extraction Method: Principal Component analysis.
Source: Authors.

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For factor analyses, we chose to eliminate all coefficients below 0.40. The matrix of factors with the respective coefficients and values above 0.7 are presented below. After refinement and removal of variables with coefficients below the recommendations, the component matrix was obtained by the rotation method (Table 3).

Table 3 Component Rotation Matrix

	Components			
Variables	**1**	**2**	**3**	**4**
Tenologia1		0,865		
Tecnologia2		0,793		
InfluenciaFamilia1			0,816	
InfluenciaFamilia2			0,802	
Poupança1				0,822
Poupança2				0,811
Planejamento1	0,831			
Planejamento2	0,697			
Planejamento3	0,676			
ControleFinanças1	0,761			
ControleFinanças2	0,833			
ControleFinanças3	0,721			

Notes: i) Extraction Method: Principal Component analysis; ii) Rotation Method: Varimax with Kaiser Normalization; iii) Converged rotation in 5 iterations.
Source: Author.

DETAILS OF THE MODEL'S COMPONENTS AND REPRESENTATIVENESS

After rotated extraction, using the Varimax method, which is the most used in this type of analysis, four components were obtained, which indicate consistency in the groupings of factors, which were then detailed and named after these factors, demonstrating that the proposed model can be used to explain the financial behavior of the researched academics, as shown in table 4, with the first four factors it is possible to explain 65.9% and with six factors up to 80.2%.

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Table 4 Total explained variance

Components	Initial Autovalues			Extract Sums of Loads Squared			Rotation Sums of Loads Squared		
	Total	% variance	% cumulative	Total	% variance	% cumulative	Total	% variance	% cumulative
	2,527	25,274	25,274	2,527	25,274	25,274	2,326	23,26	23,26
2	1,507	15,075	40,349	1,507	15,075	40,349	1,446	14,455	37,716
3	1,346	13,458	53,807	1,346	13,458	53,807	1,429	14,293	52,009
4	1,215	12,154	65,961	1,215	12,154	65,961	1,395	13,952	65,961
5	0,762	7,617	73,578						
6	0,664	6,644	80,221						
7	0,563	5,629	85,85						
8	0,536	5,361	91,211						
9	0,497	4,97	96,181						
10	0,382	3,819	100						

Note: Extraction Method: Principal Component analysis.
Source: Authors

By adopting factorial analysis, the rotation method already presented in Table 3, it was possible to verify with the refinement of the model and removal of some variables that were not fully adjusted to the model. Thus, the first four components or factors are highlighted with their respective denominations, according to table 5.

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Table 5 Characterization of model componentes

	Components	Grouped Variables	Description/Representativeness
1	Planning Culture	Plan1; Plan2; Plan3; ControleFinanc1; ControleFinanc2; ControleFinanc3	They represent the questions from the last sessions of the research with affirmations to identify how academics register, control and plan their personal finances.
2	Readiness to Use technology	Tec1; Tec2; Tec3	Clearly identified that the preference is for mobile technology. These variables represent the habits of readiness to use technologies aimed at controlling finances.
3	Influences and Formation	Influenc.1; Influenc2	They indicate the latent variables that show family influences, that is, parents' habits or influencers of customs in relation to the use of money.
4	Savings Habits	Poup1; Poup2	These variables represent the behavior of saving resources for some eventuality or to acquire a higher value good, that is, saving to spend on another occasion.

Source: Authors

SECOND STAGE – ADJUSTED MODEL

Next, in the illustration with the adjusted model, it is possible to understand the direction and intensity that the model variables impact on Financial Control. It should be noted that the variables alone can show a positive relationship with financial control, but when proposed in the structural equation model with multiple regressions, the results of the constructs (Influences, Planning/Savings, Use of technology) and its direct and indirect effects for the dependent variable "Financial Control".

The model estimates are presented, as shown in Table 6, at a 95% confidence level, highlighting the coefficients that were statistically significant.

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Table 6 Structural model coefficients

Variables			Estimate	Standardized coefficient	Standard error	Test t	P-Value
Tec	<---	Infl	0,119	0,200	0,060	1,974	0,048
Tec	<---	Poup	0,029	0,085	0,032	0,897	0,370
Control	<---	Infl	0,485	0,291	0,149	3,247	0,001
Control	<---	Tec	0,528	0,190	0,252	2,099	0,036
Control	<---	Poup	0,031	0,032	0,078	0,389	0,697
Poupa3	<---	Poup	1,000	0,661			
Plan3	<---	Poup	0,353	0,207	0,145	2,428	0,015
Poupa2	<---	Poup	0,903	0,657	0,354	2,552	0,011
INF6	<---	Infl	1,000	0,501			
INF2	<---	Infl	1,397	0,779	0,275	5,085	0,000
INF1	<---	Infl	0,964	0,481	0,177	5,448	0,000
Tec3	<---	Tec	1,000	0,320			
Tec2	<---	Tec	2,719	0,793	0,788	3,452	0,000
Tec1	<---	Tec	1,411	0,526	0,342	4,119	0,000
Financ1	<---	Control	1,000	0,820			
Financ2	<---	Control	0,879	0,708	0,147	5,977	0,000
Financ7	<---	Control	0,371	0,292	0,091	4,071	0,000

Source: Authors.

Below are some adjustment indices of the model above, with a P-value of 0.000, which indicates that the model is not mediocre:

X2/df   2.2   (less than 2, Good fit)
CFI   0.88   (greater than regular 0.6)
GFI   0.95   (greater than 0.9 Good fit)
PGFI   0.54   (greater than 0.6 good fit)
PCFI   0.59   (greater than 0.6 Good fit)
RMSEA = 0.065   (less than or equal to 0.1, indicating a good fit)

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The value of the X^2/gl 2.2 index indicated the need for adjustments in the model, normality and presence of outliers were also analyzed. It should be noted that the purpose of this stage of analysis can be classified as exploratory to understand the behavior and pertinence of the variables involved in financial management.

Table 7 shows the measures for MSA (Measure of Sampling Adequacy), or Sampling Adequacy, which according to Hair et al. (2009) can be interpreted with the following guidelines: 0.80 or above, "admirable"; Greater than or equal to 0.70 and below 0.80, "median"; Greater than or equal to 0.60 and below 0.70, "mediocre"; Greater than or equal to 0.50 and below 0.60, "bad", below 0.50, "unacceptable".

Table 7 Discriminating validity

Variables/Factor	1	2	3	4	5
Technology	0,808				
Planning	-0,395	**0,696**			
Savings	0,260	-0,503	**0,650**		
Family and Social Influences	-0,151	-0,002	-0,478	**0,855**	
Financial control	0,318	-0,025	0,189	0,016	**0,929**

Notas: i) Extraction Method: Principal Component analysis.
ii) Rotation Method: Varimax with Kaiser Normalization.
iii) KMO test (Kaiser-Meyer-Olkin)

Source: Authors.

It was evidenced that there is factorial consistency, which has, among others, the purpose of condensing the information contained in each variable into factors with the minimum loss of information, thus defining the fundamental constructs, as well as attesting to the general consistency of the data, used in a similar way of the sample adequacy indicator (MSA).

This work was around the process for the development of a financial app, as the main objective of this work, aiming to encourage the use of a facilitating instrument for managing finances, based on the belief that good practices and planning can contribute to the development and skills of users and consequently improved management of personal finances.

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CHARACTERIZATION OF SURVEY RESPONDENT STUDENTS

In this step, information about those surveyed is presented, in general, to make the entire research process more transparent, the graphs can be found in the Appendices of this article.

After analyzing the main aspects mapped in the survey, it was found that 76.7% of respondents are between "16 to 25 years old", and still 18% in the range "26 to 35 years old". Homogeneity was confirmed, there is no significant difference between the ages of respondents.

In the test of homogeneity and variance, the first group has an average financial control score of 35.58 and they are the majority of the sample, in the second group students aged 26 to 35 years showed little differentiation. In the age group of 36 to 45 years, there was a reduction in the quality of financial control and it is the exception, as the financial control score increases as age increases.

Technology Acceptance for Personal Finance Controls

Respondents responded that technology is important to financial controls. Despite the concern about the secrecy and security of personal data. In the section on influences received and personal training for financial education, it appears that most respondents indicate family influence for managing monthly expenses and purchasing behavior and decisions on installment payments (debts). These variables were also analyzed individually in the study process.

In the Fourth Section, on controlling their personal finances, they indicated controlling their finances, however, this statement is inconsistent and put to the test in the next sessions and with questions about how income is used and the lack of reserves/savings, indicating a contradiction. An example is giving in to the impulse to consume, accumulating debts higher than the income received in general. This whole process led to the main focus of the work for the development of the App aimed at finance.

Elements for the Financial App Project

It was identified that the interest of those surveyed in relation to new technologies is positive (applications or electronics that help in everyday life, and that guarantee fun and entertainment), however, when it comes to the search for instru-

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ments that make their financial lives less complicated and embarrassing, this search diminishes. And the lack of knowledge about how to operate certain resources for finance is more evident, also in the research this finding was made through the collection of specific terms.

In the survey, they indicate that technology is a great ally for control, with 66.7% of respondents preferring a mobile resource (App for Cell Phones). And, in other sessions, they indicated that they also prefer control spreadsheets, that is, opinion is divided and perhaps that is why the presentation of the APP model, graphic aspects, icons, layout and visual presentation should explore all these resources. Mobile apps are booming. But when it comes to financial applications this reality is a little different. Regardless of the use of technology, the survey identified different financial profile classifications.

Analyzing the responses obtained, 87% of respondents consider it important to reserve part of their income for unforeseen events, however, this planning and saving behavior was not consistently identified. Adopting the precepts of Siqueira and Vilela (2019) and in the research developed with scores from the planning and saving habits sections, it was possible to show in quadrants according to proactivity in relation to personal decisions to save of those surveyed with less than a third with the effective profile.

FINANCIAL APP LOGICAL DESIGN PROPOSAL

The following worksheet (Frame 3) was tested with real data, consisting of the division of three sections, as detailed in the foundation of this research. In summary, it is explained that confronting the "inputs", where all receipts of resources are registered, which can be from the individual or family, with the "outputs" referring to expenses (disbursements) that can effectively be applied to the general expenses of the person, therefore, it must be a proposal that allows customization, that is, according to the profile of the person who uses the device, application of any format.

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Frame 3 Summary structural model for Financial Control

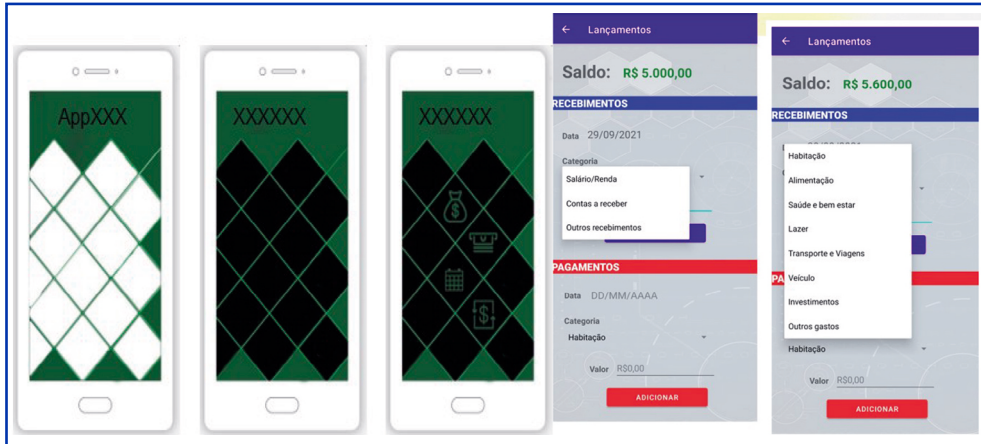| ENTRADAS/RECEITAS	Previsão	Realizado	Previsão	Realizado	...∑	Total	TOTAL
Salário Recebido	$	$				∑$ linha	∑$ linha
Bolsa e ajuda de custos							
Outros recebimentos							
TOTAL RECEBIDOS	∑	∑				∑$ coluna	∑$ coluna
Diferença Orçado Vs Realizado		$	$	$		∑$ #	∑$ #
SAÍDAS/DESPESAS	Previsão	Realizado	Previsão	Realizado	...∑	Total	TOTAL
HABITAÇÃO	∑	∑				∑$ linha	∑$ linha
ALIMENTAÇÃO	∑	∑				∑$ linha	∑$ linha
SAÚDE E BEM ESTAR	∑	∑				∑$ linha	∑$ linha
TRANSPORTE E VIAGENS	∑	∑				∑$ linha	∑$ linha
IMPOSTOS E TARIFAS	∑	∑				∑$ linha	∑$ linha
VEÍCULO	∑	∑				∑$ linha	∑$ linha
LAZER	∑	∑				∑$ linha	∑$ linha
FINANCIAMENTOS	∑	∑				∑$ linha	∑$ linha
(-) PAGAMENTOS TOTA	∑	∑				∑$ coluna	∑$ coluna
Diferença Orçado Vs Realizado		$	$	$	$	∑$ #	∑$ #
SALDOS	Previsão	Realizado	Previsão	Realizado	...∑	TOTAL	TOTAL
TOTAL ENTRADAS	∑	∑					
(-) TOTAL SAIDAS	∑	∑					
Saldo do Mês		#					
Saldo Acumulado		#∑					

Source: Authors.

With the results found, it can be affirmed the profile of students with greater possibilities of achieving a good management of personal finances, the individual who gathers the following attributes:

a. Develop planning as a guide for your savings, spending and income actions;

b. Readiness to use technology (in the survey, mobile technology applications were the most indicated);

c. Having access to training and family influences in favor of being financially aware.

This proposal was conceived in order to provide conditions to understand the stages of the creation, development and use project. It is understood that this project is more focused on teaching. Because for it to effectively become a product, it needs new partnerships and investment of resources (Figure 2).

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Figure 2 Proposed financial App design

Source: Authors.

Conclusions

This research was divided into two moments, first with field research to understand the factors that determine how students deal with their personal finances and then the objective of the work was developed, presenting a proposal for a financial application of personal finance.

With the field research, it was possible to obtain some characteristics of the personal finances of the respondents, among the findings, it was possible to observe that more than 80% of the students surveyed agree that technology provides greater control and dynamism in their lives. It is confirmed in the research that 76.7% of these students are under 26 years old, so mobile technology is the main source of information and mainly of distraction and leisure and other characteristics evidenced at work.

During the research stages, it was possible to explore and disseminate the following points: a) understand the complexity of designing a functional App; b) importance of an instrument to compose the planning of personal finances (from the researched sample); c) present a proposal based on accounting-financial concepts, following the stages of creation and engineering of software for mobile technology.

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It should be noted that after the beginning of the research, the Covid-19 pandemic occurred, which intensified the use and possibilities of using technology. It also brought new challenges, especially for technology projects and development, as they need to be agile and quickly reach the market. The limitations of the research, especially in the collection phase, especially due to the impositions of the Covid-19 pandemic, however, do not compromise the findings and results. For future research steps, it is intended to explore the dimensions of the use and impacts of financial controls, as well as the behavior of users.

And finally, the main contribution is the development of the stages in a systemic way and interactions with reality, fostering the knowledge and entrepreneurial skills of academics, as well as new perspectives for improving the financial application, already visualizing the improvement of the prototype for educational use with academics.

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