# The Behavior Of Spending And Its Financial Impact On The Consumer Of Basic Basket Products In Ecuador 

Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$<br>1. Docente Escuela Superior Politécnica de Chimborazo Facultad de Administración de Empresas, Carrera de Mercadotecnia, Grupo de Investigación Innova MKT Ecuador, cristiangf357@gmail.com Código orcid: https://orcid.org/0000-0001-7178-9940<br>2. Docente Escuela Superior Politécnica de Chimborazo Facultad de Administración de Empresas, Carrera de Finanzas, Grupo de Investigación Innova MKT Ecuador, olmary@espoch.edu.ec Código orcid: https://orcid.org/0000-0003-2017-1096<br>3. Docente en la Facultad de Informática y Electrónica, Escuela Superior Politécnica de Chimborazo (ESPOCH), Ecuador. Email: alba.maldonado@espoch.edu.ec, ORCID: https://orcid.org/0000-0001-8673-0319


#### Abstract

The objective of this research work was to determine the spending behavior and its financial incidence of the consumer of basic basket products in the city of Riobamba. Study carried out through a mixed, qualitative and quantitative methodology; through analytical, synthetic, deductive and inductive methods; with a nonexperimental, cross-sectional and documentary design. Where research techniques were applied with the interview and the survey with their respective instruments; the use of Spearman's correlational method to verify the proposed hypothesis. This is how the main results were: disproportionate spending based on income; and ant expenses are contemplated that influence the income that can be used for savings. Hence, The current financial situation of the economically active population was proposed through a statistical analysis study to determine how it affects the level of consumption of products belonging to the basic basket, in addition to proposing solutions for personal finance management. Concluding that the technical study of the different economic variables is important for the strengthening of consumer decisions; recommending to the population that local consumption be encouraged and achieve a behavior of measured spending. Concluding that the technical study of the different economic variables is important for the strengthening of consumer decisions; recommending to the population that local consumption be encouraged and achieve a behavior of measured spending. Concluding that the technical study of the different economic variables is important for the strengthening of consumer decisions; recommending to the population that local consumption be encouraged and achieve a behavior of measured spending.


Keywords: spending behavior, finances, consumer, basic basket

## Introduction

Inflation and its impact on household consumption expenditure in Ecuador, period 2008-2020; by the author (Reyes Vera, 2020) aims to determine the incidence of inflation in household consumption expenditures in Ecuador, in which I conclude that in Ecuador inflation and unemployment greatly affect
the level of consumption of households, because with higher unemployment and inflation, the consumption of basic basket products is lower, due to the purchasing power of each family, in addition to various external factors that have contributed to the impact on the household economy, such as dollarization, the price of a barrel of oil, investments
and natural phenomena, in such a way that this means that its consumption is not progressive and rather decreases.

Analysis of the relationship between monthly family income and the cost of the basic food basket in Ecuador. Period 1982 - 2017; by the authors (Morán et al., 2018), aims to analyze the relationship between household income and the basic basket, which will allow studying the relationship between inflation, which concluded that family income and the cost of the basic family basket has a high relationship, that is to say that having a higher income level will be able to acquire the basic basket, taking into account that the price of the basket does not remain stable over time, but rather the products that that compose it are influenced by external factors that cause inflation, and that end up affecting its cost.

Personal finances are aimed at the correct management of money, savings, retirement plan, investment and tax administration, therefore it is important to correctly manage financial resources, since the decisions that individuals make about how to spend their money depend on it. income, what percentage to save and how to invest your savings. The World Bank(GBM, 2022), points out that aspects such as changes in supply chains, as well as pandemic outbreaks, will have an effect of financial stress, and the study of vulnerability to commodity volatility is of great importance, especially in developing economies. .

The newspaperThe universe. (2021), points out that, in Ecuador, 8 out of 10 middle-class households suffered a restriction in their usual income, due to the fact that many companies resorted to reducing working hours and mass layoffs of workers in 2021, as an effect pandemic, in the first total confinement. Likewise, it was estimated for 2021 that an Ecuadorian family has a debt of $\$ 4,500$, which represents almost ten times more than the average income of a worker, therefore, families having a cut in their income are forced to reduce the level consumption of certain products, which affects the level of sales of businesses nationwide.

In the city of Riobamba, according to the Economic Bulletin(UNACH, 2022), it is estimated that the current and future financial situation of the household in relation to the month of January 2022, has improved by $12 \%$, while $69.38 \%$ of households have not had any change, and $18.32 \%$ indicated that their situation It has worsened, causing effects on consumer behavior at the level of consumption of various products. Therefore, the general objective of this work is to determine the behavior of spending and the financial impact on the level of consumption of the products of the basic basket in the city of Riobamba, year 2022. Through a central hypothesis which seeks establishing whether the behavior of spending and the financial incidence will allow, or not, to know the consumption of products of the basic basket in the city of Riobamba.

## Methodology

This article will use the level of correlational research, because it is intended to analyze the behavior of spending and the financial impact on the level of consumption of basic basket products, allowing us to determine whether or not there is a relationship between the variables, taking take into account the importance of knowing the behavior of the variables depending on the relationship that exists between them(Sampieri et al., 2014). The study will be designed under the methodological approach of the mixed approach, since this is the one that best adapts to the characteristics and needs of the research. From the mixed approach, the interview technique will be taken to know the behavior of spending and the financial incidence of households in the city of Riobamba, aimed at heads of household, as well as a survey to analyze the behavior of spending and its financial incidence. of the consumer of basic basket products in the city of Riobamba in the year 2022. Which will allow us to define if there is a correlation between the variables and how the income and expenses of a household affect the level of consumption of the products belonging to the basic basket.

The study population is made up of the Economically Active Population (PEA) of the city of Riobamba from the age of 20 to 64 , considering that they refer to the population that has family nuclei and habitual
consumption of the products. of the basic basket, with a total of $87 \%$, which due to the delimitation of the study will be applied in the urban area of the city of Riobamba, according to the(SNI, 2010)the EAP in the urban area is $66 \%$, with a population of 66,381
people. To calculate the EAP projection, the Composite Population Growth formula will be used, with a population growth rate of $1.56 \%$, see Table 1. $P_{t}=P_{0}(1+r)^{t}$

Table 1. EAP projection

| PEA Riobamba | $\mathbf{2 0 1 0}$ | PROJECTION |  |
| :--- | :--- | :--- | :--- |
|  | Not. | Not. | $\%$ |
| cantonal EAP | 100,585 | 121,117 |  |
| urban EAP | 66,381 | 79,931 | 66 |
| rural EAP | 34,204 | 41,186 | 3.4 |
| EAP by age | 57,767 | 69,558 | 87 |

Own authorship.

The projection of the urban area is 79,931 people, obtaining a population by age of 69,558 people.

$$
\mathrm{n}=\frac{\mathrm{N} * \mathrm{Z}_{\alpha}^{2} * \mathrm{p} * \mathrm{q}}{\mathrm{e}^{2} *(\mathrm{~N}-1)+\mathrm{Z}_{\alpha}^{2} * \mathrm{p} * \mathrm{q}}
$$

Where:
n : the sample size.
N : population size
e: maximum accepted estimation error $=0.05$
Z: confidence level $=1.95$
p: probability of the studied event occurring $=0.5$
q : probability that the event studied does not occur $=0.5$

$$
\begin{gathered}
\mathrm{n}=\frac{69.558 * 1.95^{2} * 0.5 * 0.5}{0.05^{2} *(69.558-1)+1.95^{2} * 0.5 * 0.5} \\
\mathrm{n}=378
\end{gathered}
$$

The sample is a total of 378 , which is statistically representative of the total population to obtain adequate results, considering the circumstances of the study. In addition, a Scale will be developed © 2021 JPPW. All rights reserved
which will allow us to measure and interpret the variables through a scale of scores, depending on the attribution assigned to each of them. A scale "is a table of calculations or a set of rules that establish the

## Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$

set of criteria to measure or evaluate the merits, damages or contributions presented by a person or institution"(Morales, 2020).

According to the latest survey carried out by the INEC at the national level on the income and expenses of urban and rural households in the period 2011-2012 (ENIGHUR). The income received by households is divided into two types which are; monetary income from wages and salaries, leases, transfers and other current income; while nonmonetary income is those wages in kind, selfconsumption or self-supply, gifts received and imputed value of the dwelling. On the other hand, we have the structure of current spending, which, like income, is divided into monetary spending, which includes consumption spending, which are the 12 divisions of the CCIF, and non-consumption spending such as taxes, alimony and vehicle
registration and fines; and therefore non-monetary spending.

Through the IBM SPSS Software, the reliability of the instruments will be measured, in addition to determining if there is a correlation between the variables and accordingly, determine how finances affect the level of consumption of products belonging to the basic basket.

## RESULTS

Below are the results obtained from the surveys and interviews conducted in the city of Riobamba. The process of elaboration of the surveys was executed through a Likert scale questionnaire, with a Cron Bach Alpha Coefficient of 0.97305 , being the reliable survey for its application, which allowed us to know the opinion of a total of 378 people, see Table 2.

Table 2. Cronbach's Alpha Calculation

| Name | Worth |
| :--- | :---: |
| k: number of items | 76.00 |
| $\mathbf{V}_{\mathbf{i}}:$ initial variance | 98.99 |
| $\mathbf{V}_{\mathbf{t}}:$ overall variance | 2489.88 |

Own authorship.
Table 3
Do you live alone?

| Yes | 102 |
| :--- | :---: |
| Not | 276 |
| TOTAL | $\mathbf{3 7 8}$ |

Own authorship.
Figure 1 Distribution of Table 3


Analysis and interpretation: $73 \%$ of those surveyed, a total of 276 people, do not live alone. While $27 \%$ live alone. This shows that most of the respondents are part of a family nucleus, however, it
is important to take into account that a high and rising percentage lives alone, so it is important to consider their needs and priorities as a consumer.

Table 4. How many members make up your household?

| from 2 to 3 | 80 |
| :--- | :--- |
| from 4 to 5 | 167 |
| more than 5 | 29 |
| TOTAL | $\mathbf{2 7 6}$ |

Own authorship.
Figure 2 Distribution of Table 4

## Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$

 $\underline{256}$

Analysis and interpretation: $11 \%$ of those surveyed, a total of 29 people, have their family made up of more than 5 members. $29 \%$ of the respondents, a total of 80 people, have their family made up of 2 to 3 members and $61 \%$ of the respondents, a total of 167 people, have their family made up of 4 to 5
members. These results show that the majority of families in the city of Riobamba are made up of 2 to 3 members and their behaviors, priorities and needs differ from those of families from decades ago made up of more members.

Table 5. How many household members work?
from 1 to 241
from 3 to $5 \quad 32$
more than 5 3

TOTAL
276

Own authorship.

Figure 3 Distribution of Table 5


Analysis and interpretation: $88 \%$ of households, with a total of 244 people, have 1 to 2 members working while $12 \%$ of those surveyed, with a total of 32 people, have 3 to 5 members working. Together with the result of the previous question, we also see
a change in the dynamics in terms of obtaining income, since a large majority of families receive more than one income and several members provide it.

Table 6. What is the amount of income you receive monthly?

| Income | $\begin{aligned} & \$ 1 \text { to } \\ & \$ 425 \end{aligned}$ | $\begin{aligned} & \hline \$ 425 \text { to } \\ & \$ 1000 \end{aligned}$ | $\begin{aligned} & \$ 1001 \text { to } \\ & \$ 2000 \end{aligned}$ | $\begin{aligned} & \$ 2,001 \text { to } \\ & \$ 3,000 \end{aligned}$ | $\begin{aligned} & \$ 3,001 \text { to } \\ & \$ 6,000 \end{aligned}$ | Total | Lost System | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wage or Salary | 93 | 181 | 46 | 5 | 0 | 325 | 53 | 378 |
| Fees for freelance work | 67 | 26 | 13 | 7 | 0 | 113 | 265 | 378 |
| leases | 65 | 3 | 9 | 3 | 0 | 80 | 298 | 378 |
| Other income | 80 | 7 | one | 5 | 0 | 93 | 285 | 378 |

Own authorship.

Figure 4. Distribution of Table 6

## Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$ $\underline{258}$



Analysis and interpretation:They receive monthly income between $\$ 1$ and $\$ 425,25 \%$ from wages and salaries, $18 \%$ from fees for independent work, $17 \%$ from rent and $21 \%$ from other income. Followed by income between $\$ 425$ to $\$ 1000$, $12 \%$ for wages and salaries, $7 \%$ for fees for independent work, $0.8 \%$ for leases and $1 \%$ for other income. Between $\$ 1,001$ to $\$ 2,000,12 \%$ receive income from wages and
salaries, $3 \%$ from fees for independent work, $2 \%$ from rentals, and $0.3 \%$ from other income. Finally, from $\$ 2,001$ to $\$ 3,000,1 \%$ receive wages and salaries, $2 \%$ fees for independent work, $0.8 \%$ rentals, and $1 \%$ other income. Most of the respondents receive an income between $\$ 425$ and $\$ 1,000$, considering various sources of income and even several family members working. So,

Table 7. What is the amount of your monthly expenses?

| Costs | $\begin{aligned} & \$ 1 \text { to } \\ & \$ 200 \end{aligned}$ | $\begin{aligned} & \$ 201 \text { to } \\ & \$ 400 \end{aligned}$ | $\begin{aligned} & \$ 401 \text { to } \\ & \$ 600 \end{aligned}$ | $\$ 601$ to \$800 | $\begin{aligned} & \$ 801 \text { to } \\ & \$ 1000 \end{aligned}$ | $\begin{aligned} & \$ 1,001 \text { to } \\ & \$ 3,000 \end{aligned}$ | Total | Lost System | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basic services | 261 | 64 | 26 | 12 | 5 | 0 | 368 | 10 | 378 |
| Fun (platform subscriptions, weekend rides, movies, bars, etc.) | 206 | 23 | 9 | 6 | 2 | 0 | 246 | 132 | 378 |
| insurance | 136 | 28 |  | 3 | 2 | 0 | 169 | 209 | 378 |
| Credit or debts | 107 | 77 | 51 | 18 | 10 | 3 | 266 | 112 | 378 |
| alimony | 53 | 8 | 8 | 2 | 0 | 0 | 71 | 307 | 378 |

Vehicle

| (maintenance and <br> fines) | 139 | 27 | 3 | 0 | 4 | 0 | 173 | 205 | 378 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Pets (food, vets, <br> accessories) | 175 | 19 | 9 | 0 | 0 | 3 | 206 | 171 | 378 |

Own authorship.

Figure 5. Distribution of Table 7


Analysis and interpretation: Of the monthly income received by the population, $24 \%$ is used for expenses for basic services, $19 \%$ for fun, $16 \%$ for pets, $13 \%$ is used for insurance and vehicle maintenance, $10 \%$ to credits or debts, with $5 \%$ of their income destined to the payment of alimony. The
behavior of the consumers of the sample, allocate $24 \%$ of their income to basic expenses, we can observe that there are other elements considered as priorities, which are the ones that dictate this change in behavior, such as the importance of entertainment expenses , pets, insurance. Relatively new needs.

Table 8. How often do you buy the products?

| Consumption Groups/Subgroups | Never | Daily | Weekly | Biweekly | Monthly | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Cereals and derivatives | 61 | 51 | 146 | 51 | 69 | 378 |
| Meat and preparations | 18 | 91 | 211 | 44 | 14 | 378 |
| fish and shellfish | 23 | 42 | 200 | 72 | 41 | 378 |

Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$ $\underline{260}$

| Edible fats and oils | 13 | 74 | 174 | 52 | 65 | 378 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Milk, dairy products and eggs | 16 | 108 | 209 | 32 | 13 | 378 |
| Fresh vegetables | 13 | 130 | 199 | 28 | 8 | 378 |
| Tubers and derivatives | 38 | 99 | 196 | 24 | twentyone | 378 |
| Legumes and derivatives | 44 | 97 | 196 | 25 | 16 | 378 |
| Fresh fruits | 14 | 132 | 198 | 27 | 7 | 378 |
| Sugar, salt and seasonings | twentyone | 109 | 144 | 52 | 52 | 378 |
| Coffee, tea and soft drinks | 3. 4 | 109 | 129 | 38 | 68 | 378 |
| other food products | 82 | 78 | eleven | 46 | 61 | 278 |
| Food and baby consumed outside the home | 55 | 73 | 114 | 65 | 71 | 378 |
| Rent | 179 | 41 | 39 | 8 | 111 | 378 |
| lighting and fuel | 110 | 93 | 91 | 16 | 68 | 378 |
| washing and maintenance | 163 | 62 | 86 | 19 | 48 | 378 |
| Other household appliances | 170 | 76 | 48 | 16 | 68 | 378 |
| Fabrics, shapes and accessories | 191 | 43 | fifty | 18 | 76 | 378 |
| Men's ready-made clothing | 159 | 37 | 49 | twenty-one | 112 | 378 |
| Women's ready-made clothing | 137 | 41 | 59 | 16 | 125 | 378 |
| Housekeeping | 197 | 38 | 68 | 17 | 58 | 378 |
| Health care | 66 | 49 | 93 | 41 | 129 | 378 |
| Care and personal items | 78 | 46 | 101 | 49 | 104 | 378 |
| Recreation, reading material | 159 | 58 | 66 | 23 | 72 | 378 |
| Tobacco | 267 | 31 | 40 | 16 | 24 | 378 |
| Education | 61 | 101 | 75 | 28 | 113 | 378 |


| Transport | 59 | 164 | 63 | 33 | 59 | 378 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Own authorship.

Figure 6. Distribution of Table 8


Analysis and interpretation: According to the results obtained, $45 \%$ of those surveyed consume food and drinks weekly, while $41 \%$ do not pay rent for housing, lighting, washing and maintenance, with respect to clothing, $25 \%$ of people buy monthly, as well as miscellaneous with $22 \%$. The behavior of the
consumers in the sample, detail that they purchase food and beverages more frequently, however, they have additional priorities, which define this new change, the most evident, is the need created for recreational activities, even on the education, rent and transportation.

Table 9. What is the monthly amount that you allocate for the purchase of basic basket products?

| Spent | $\mathbf{\$ 1}$ to <br> $\mathbf{\$ 1 0}$ | $\mathbf{\$ 1 1}$ to <br> $\mathbf{\$ 3 0}$ | $\mathbf{\$ 3 1}$ <br> $\mathbf{t o}$ <br> $\mathbf{\$ 5 0}$ | $\mathbf{\$ 5 0}$ <br> $\mathbf{t o}$ <br> $\mathbf{\$ 1 0 0}$ | $\mathbf{\$ 1 0 1}$ to <br> $\mathbf{\$ 3 0 0}$ | $\mathbf{\$ 3 0 1}$ to <br> $\mathbf{\$ 5 0 0}$ | Total | Lost <br> System | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Cereals and <br> derivatives | 204 | 91 | 3.4 | 17 | 7 | 3 | 356 | 22 | 378 |
| Meat and <br> preparations | 123 | 171 | 54 | 16 | 4 | 3 | 371 | 7 | 378 |
| fish and shellfish | 158 | 140 | 46 | 14 | 4 | 6 | 368 | 10 | 378 |
| Edible fats and oils | 176 | 115 | 54 | 18 | one | 3 | 367 | eleven | 378 |

Milk, dairy products
and eggs $1^{186}$ 116

| Care and personal <br> items | 112 | 106 | 61 | 28 | 5 | 2 | 314 | 64 | 378 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Recreation, reading <br> material | 150 | 67 | 32 | 23 | 3 | 3 | 278 | 100 | 378 |
| Tobacco | 153 | 31 | 18 | 17 | 5 | 3 | 227 | 151 | 378 |
| Education | 86 | 68 | 83 | 57 | 19 | 5 | 318 | 60 | 378 |
| Transport | 109 | 82 | 76 | 42 | 10 | 3 | 322 | 56 | 378 |

Own authorship.

Figure 7. Distribution of Table 9


Analysis and interpretation: 49\% of those surveyed spend between $\$ 1$ to $\$ 10$ for food and beverages, $50 \%$ spend between $\$ 1$ to $\$ 10$ for housing, while $20 \%$ spend between $\$ 31$ to $\$ 50$ for clothing and $25 \%$ of those surveyed spend between
$\$ 11$ to $\$ 30$ for miscellaneous. The highest amount of expenses in relation to food is from $\$ 1$ to $\$ 10$, considered low and they allocate a greater range to clothing, miscellaneous, this shows in the same way, the change in consumer behavior and priorities.

Table 10. Of the following variables with respect to consumer behavior?

Question Great | Very |
| :---: | :---: | :---: | :---: | :---: |
| good |$\quad$ Well Bad $\quad$ Total

```
Cristian Oswaldo Guerra Flores \({ }^{1}\), Olga Maritza Rodríguez Ulcuango \({ }^{2}\), Isabel Maldonado Núñez \({ }^{3}\) \(\underline{264}\)
```

| How do you consider the level of consumption <br> of the basic basket products compared to the last <br> 2 years? | 44 | 157 | 163 | 14 | 378 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| How do you consider the places where you buy <br> basic products? | 44 | 157 | 163 | 14 | 378 |

## Own authorship.

Figure 8. Distribution of Table 10


Analysis and interpretation: $43 \%$ of those surveyed consider that the level of consumption is good compared to recent years, while $41 \%$ consider that it is very good and $12 \%$ consider that the level of consumption is bad. On the other hand, $43 \%$ consider that the places where they buy basic basket products are good, $41 \%$ that they are very good and $12 \%$ that they are excellent. Focusing on the products of the
basic basket and the suppliers that sell them in the city of Riobamba, he considers that their consumption has not changed compared to previous years and the places where they can be purchased, according to his perception, are good, but not excellent, being an opportunity for improvement for small and medium businesses.

Table 11. What method do you use to pay for your purchases?

| heading | Always | Frequently | Infrequent | Never | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Cash | 239 | 95 | 35 | 9 | 378 |
| Debit | 67 | 77 | 110 | 124 | 378 |
| Credit card | 37 | 71 | 90 | 180 | 378 |
| Wire transfer | Four. Five | 79 | 116 | 138 | 378 |
| Automatic debit | 32 | 32 | 100 | 214 | 378 |
| Check | 19 | 7 | 54 | 298 | 378 |

Own authorship.

Figure 9. Distribution of Table 11


Analysis and interpretation: $63 \%$ of those surveyed always use cash to buy, $29 \%$ use a debit card infrequently, $47 \%$ do not use a credit card, $21 \%$ frequently use a bank transfer, $57 \%$ do not use an automatic debit or check to pay for your purchases. Part of the implementation of digitization in providers in the city of Riobamba, as a competitive advantage, it is important to consider that the second most used method is the debit card, which can be
considered as an initial cost to implement it, but a important competitive advantage.

## Interview

Through an interview guide, 10 interviews were conducted with heads of household in the city of Riobamba with the objective of determining the spending behavior and financial incidence of households, which was validated by three experts. In order to establish the validity of the instrument's

## Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$ $\underline{266}$

contents, the total validity coefficient (CVC) was used, which was 0.7230 , considered in the acceptable
validity and concordance scale, granting validity to the instrument. See Table 12.

Table 12. Validation by Judges, together with the error

| items | pro-judge | vmx | erroritm | validitm |
| :--- | :--- | :--- | :--- | :--- |
| one | 3.3333 | 0.6667 | 0.03704 | 0.6296 |
| 2 | 4,0000 | 0.8000 | 0.03704 | 0.7630 |
| 3 | 4,0000 | 0.8000 | 0.03704 | 0.7630 |
| 4 | 3.6667 | 0.7333 | 0.03704 | 0.6963 |
| 5 | 4,0000 | 0.8000 | 0.03704 | 0.7630 |

Own authorship.

The results obtained in the interview are shown below.

Ten interviews were conducted with heads of household in the city of Riobamba, where six heads of household consider that their income level is good, this due to the number of people who contribute financially to the household, which generates greater sources of income. while four households consider that their income level is regular. However, seven people consider that their income level covers all their needs, while three people consider that their income does not cover all their needs. Regarding whether they carry out financial planning, six people answered that they do carry out financial planning, which they do on a monthly basis, through a record of monthly income and expenses. Secondly,

To cover their primary expenses, three people allocate $\$ 300$ to cover their expenses, while another three people allocate $\$ 400$, likewise other households allocate between $\$ 200$ and $\$ 500$, eventually allocating $\$ 1000$ to cover all their expenses, these highest priority expenses are as follows ; food, housing, basic services, education, transportation, loans and health. Likewise, six people consider that it is necessary to have a savings culture, because another source of income can be generated through investments, in addition to covering any eventuality.

## Hypothesis

For the verification of the hypothesis, the Spearman correlation coefficient will be applied, which is applied to non-parametric data. Therefore, through a normality test, it will be possible to know if the variables of the present study have a normal distribution.

## Normality test. <br> Hypothesis

H 0 : The data is close to the normal distribution.

H1: The data differ from a normal distribution

Table 13 normality test

| Kolmogorov-Smirnova | Shapiro-Wilk |
| :--- | :--- |


|  | Statistical | gl | Next. | Statistical | gl | Next. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| V1 | .137 | 378 | , 000 | .917 | 378 | , 000 |
| V2 | .075 | 378 | , 000 | .979 | 378 | , 000 |

Own authorship.

Note: V1 spending behavior and its financial incidence; V2 consumption of basic basket products.

According to the value of the Kolmogórov-Smirnova test obtained from the first variable, which was 0.137 , a p value of 0.000 less than 0.05 of $\alpha$ was obtained, therefore, the negative hypothesis is rejected, and it is accepted that the spending behavior score and its financial incidence differ from the normal distribution. Likewise, with the second variable, the negative hypothesis is rejected and it is accepted that the consumption score of basic basket products differs from a normal distribution, Correlations.
therefore, the correlation model ofSpearman. See Table 13.

## Hypothesis

H1: The behavior of spending and its financial incidence will allow knowing the consumption of basic basket products in the city of Riobamba.

H0: The behavior of spending and its financial impact will not allow knowing the consumption of basic basket products in the city of Riobamba.

Table 14. Correlations

|  |  |  | V1 | V2 |
| :--- | :---: | :---: | :---: | :---: |
|  | $\mathbf{V 1}$ | Correlation coefficient | 1,000 | $.242^{* *}$ |
| Spearman's Rho |  | Next (bilateral) | . | , 000 |
|  |  | No. | 378 | 378 |
|  |  | Correlation coefficient | $.242 * *$ | 1,000 |

Own authorship.
Note: V1 spending behavior and its financial incidence; V2 consumption of basic basket products. **. The correlation is significant at the 0.01 level ( 2 tails).

Figure 10. Testing of the hypothesis

## Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$ $\underline{268}$



It is observed that the calculated value is less than the assumed one $(0.000<0.05)$, which indicates accepting the alternate hypothesis and rejecting the null hypothesis. Therefore, the behavior of spending and its financial incidence will allow to know the consumption of products of the basic basket in the city of Riobamba. In other words, there is a direct and highly significant moderate positive correlation between the variables spending behavior and its financial impact, and the consumption of products from the basic basket (rho=0.242). See Table 14.

$$
y=\beta_{0}+\beta_{1} x
$$

$\mathbf{x}$ :spending behavior and its financial impact (independent variable)

Y:consumption of basic basket products (dependent variable)
$\mathrm{H} 0: \beta_{1}=0$
$\mathrm{H} 1: \beta_{1} \neq 0$

## Regression coefficient significance test.

Mathematically it is expressed as follows:
Table 15. Goodness-of-fit test

|  | Model Summary |  |  |
| :---: | :---: | :---: | :---: |
| Model | r squared | adjusted r squared | Standard error of <br> the estimate |
| one | .065 | .063 | 20,615 |

Own authorship.

The goodness-of-fit test was 0.065 , which represents $6.5 \%$, therefore the consumption variable of the basic basket products is explained by the spending behavior variable and its financial impact. This
indicates that the dependent variable and the independent variables are linearly related. See Table 15.

Table 16. ANOVA

| Model | Sum of <br> squares | gl | root mean <br> square | F | Next. |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| one | Regression | 11124,134 | one | 11124,134 | 26,175 | , 000 |
|  | Residue | 159797,189 | 376 | 424,993 |  |  |
|  |  | 170921,323 | 377 |  |  |  |

Own authorship.

According to the data obtained, the p value is 0.000 less than 0.05, therefore, the negative hypothesis is rejected, and the alternate hypothesis is accepted, that is, that there is a regression between the two variables and what proves that there is a correlation of the variables. See Table $16 . \beta_{1} \neq 0$

## Discussion

In the results of the investigation it was possible to appreciate that there is a direct and highly significant moderate positive correlation between the variables spending behavior and its financial incidence and the consumption of basic basket products, in addition the spending behavior and its financial incidence will allow to know the consumption of basic basket products, which coincides with the investigation ofMoran et al. (2018), in which he concluded that the income of families and the cost of the basic family basket have a high relationship, that is to say that
having a higher level of income will be able to acquire the basic basket, adding that the price of the basket does not remain stable over time, but the products that make it up are influenced by external factors that cause inflation, and that end up affecting their cost, agreeing withVera Kings (2020), where inflation and unemployment affect the level of household consumption, because with higher unemployment and lower inflation is the consumption of products from the basic basket, due to the purchasing power of each family.

Family income (IF) is the average value of remuneration received by a family made up of 1.6 recipients, in 2022 it is $\$ 712.50$, with respect to the data obtained from the study carried out. The table of the average behavior of the Basic Family Basket (CBF) and Family Income (IF) for 2022 is detailed, see Table 17.

Table 17. Family Income Coverage

| Years | Average CBF | Average IF | Family Income <br> Coverage |
| :---: | :---: | :---: | :---: |
| 2022 | 739.51 | 712.5 | $96.35 \%$ |

Own authorship.
Note: CBF (Basic Family Basket), IF (Family Income).

Figure 11. Data analysis by the Baremo Method

# Cristian Oswaldo Guerra Flores ${ }^{1}$, Olga Maritza Rodríguez Ulcuango ${ }^{2}$, Isabel Maldonado Núñez ${ }^{3}$ 

 $\underline{270}$
$95.5 \%$ of the economically active population have a low income level, while $4.0 \%$ have an intermediate income level, and only $0.5 \%$ of the population have a high income level. The low level of income is due to various factors such as the high unemployment rate that exists nationwide with a rate of $5.4 \%$ in January 2022, for the urban area $7.4 \%$ while for the rural area it was $1.6 \%$, causing a hasty cut in the income that the pea receives monthly, so it is important not to wait until you are unemployed, it is necessary to look for new sources of income that help cover the different expenses.
$84 \%$ of the population have a low level of spending, while $13 \%$ have an intermediate level of spending and only $3 \%$ of the population have a high level of spending. The level of spending varies according to the level of income received by the PEA on a monthly basis, and according to survey data, $95.5 \%$ of the population has a low level of income, prioritizing the consumption of certain items.

Meanwhile, $59 \%$ of the population have a low level of expenses for products belonging to the basic basket, that is, the EAP allocates a low budget of its income for the consumption of products belonging to the basic basket, $34 \%$ have an intermediate level of spending and only $7 \%$ have a high level of spending, which confirms that the level of household income and the level of consumption of the basic family basket have a high relationship, that is to say that by having a higher level income, the basic food basket can be purchased. Thanks to the data obtained in the survey, $15.7 \%$ of the economically active population who live alone receive income from dependent work between $\$ 425$ and $\$ 1,000$, followed by $23 \%$ who receive income between $\$ 1$ and $\$ 425$ from fees for independent work, Regarding rental income, $30 \%$ receive between $\$ 1$ to $\$ 425$, and $33.3 \%$ for other noncurrent income receive between $\$ 1$ to $\$ 425$. See table 19.

Table 19. Income according to the members that make up the household

|  | Do you live alone? |
| :--- | :--- |
|  | YEAH |


|  |  |  | How many members make up your household? |  |  | How many household members work? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { from } 2 \\ \text { to } 3 \end{gathered}$ | $\begin{gathered} \text { from } 4 \\ \text { to } 5 \end{gathered}$ | more <br> than 5 | $\begin{gathered} \text { from } 1 \\ \text { to } 2 \end{gathered}$ | $\begin{gathered} \text { from } 3 \\ \text { to } 5 \end{gathered}$ |
|  |  | \% of <br> Table <br> No. | \% of <br> Table <br> No. | $\%$ of <br> Table <br> No. | $\%$ of <br> Table <br> No. | \% of <br> Table <br> No. | \% of <br> Table <br> No. |
| PRIMARY INCOME |  |  |  |  |  |  |  |
| dependent work | \$1 to \$425 | 8.0\% | 7.7\% | 16.6\% | 3.8\% | 25.5\% | 3.0\% |
|  | \$425 to \$1000 | 15.7\% | 15.7\% | 33.6\% | 5.5\% | 48.9\% | 5.5\% |
|  | $\begin{gathered} \$ 1001 \text { to } \\ \$ 2000 \end{gathered}$ | 2.5\% | 3.8\% | 10.2\% | 1.7\% | 12.3\% | 3.4\% |
|  | $\begin{gathered} \$ 2,001 \text { to } \\ \$ 3,000 \end{gathered}$ | .6\% | .9\% | ,4\% | 0.0\% | 1.3\% | 0.0\% |
|  | $\begin{gathered} \$ 3,001 \text { to } \\ \$ 6,000 \end{gathered}$ | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Independent work | \$1 to \$425 | 23.0\% | 16.2\% | $32.4 \%$ | 6.8\% | 47.3\% | 6.8\% |
|  | \$425 to \$1000 | 7.1\% | 5.4\% | 14.9\% | 4.1\% | 20.3\% | 4.1\% |
|  | $\begin{gathered} \$ 1001 \text { to } \\ \$ 2000 \end{gathered}$ | 1.8\% | 2.7\% | 10.8\% | 0.0\% | 13.5\% | 1.4\% |
|  | $\begin{gathered} \$ 2,001 \text { to } \\ \$ 3,000 \end{gathered}$ | 1.8\% | 4.1\% | 1.4\% | 1.4\% | 6.8\% | 0.0\% |
|  | $\begin{gathered} \$ 3,001 \text { to } \\ \$ 6,000 \end{gathered}$ | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |

PROPERTY INCOME

| leases | \$1 to \$425 | 30.0\% | 10.0\% | 56.0\% | 16.0\% | 68.0\% | 14.0\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$425 to \$1000 | 2.5\% | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 0.0\% |
|  | $\begin{aligned} & \$ 1001 \text { to } \\ & \$ 2000 \end{aligned}$ | 1.3\% | 4.0\% | 10.0\% | 2.0\% | 14.0\% | 2.0\% |
|  | $\begin{gathered} \$ 2,001 \text { to } \\ \$ 3,000 \end{gathered}$ | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
|  | $\begin{gathered} \$ 3,001 \text { to } \\ \$ 6,000 \end{gathered}$ | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| OTHER NONCURRENT INCOME | \$1 to \$425 | 33.3\% | 16.9\% | 54.2\% | 11.9\% | 69.5\% | 13.6\% |
|  | \$425 to \$1000 | 0.0\% | 1.7\% | 8.5\% | 1.7\% | 10.2\% | 1.7\% |
|  | $\begin{gathered} \$ 1001 \text { to } \\ \$ 2000 \end{gathered}$ | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 1.7\% | 0.0\% |


| $\$ 2,001$ to <br> $\$ 3,000$ | $3.2 \%$ | $0.0 \%$ | $1.7 \%$ | $1.7 \%$ | $3.4 \%$ | $0.0 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 3,001 ~ t o ~$ <br> $\$ 6,000$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |

Own authorship.

As can be seen, the level of income is low since the vast majority of current and non-current income receive between $\$ 1$ to $\$ 425$, affecting the monthly budget to cover expenses and, in turn, decreases the quality of life of people by not be able to cover all your monthly expenses. As with respect to food, the range of expenses is from $\$ 1$ to $\$ 10$, for $49 \%$ of the sample. A range greater than $\$ 30$ is earmarked for housing for $50 \%$ of the surveyed population. For $20 \%$, a value greater than $\$ 30$ is allocated for clothing and finally, $25 \%$, allocates a range of $\$ 11$ to $\$ 30$ for miscellaneous belonging to the basic basket.

Based on these data, we can detail that the preponderant expense for the surveyed population is housing, allocating a greater value from their budget, followed by food and other basic basket products. However, it is also observed that, despite not allocating a significant amount to recreation expenses, this item is the second most important for the population in 2022. Evidencing the change in behavior in its post-pandemic consumption, giving priority to their health and after the acquisition of goods or services that promote leisure and coexistence.

One of the primary approaches is that, thanks to the information collected, to be able to benefit MSMEs, in generating new sales strategies that allow them to continue in this new market and even consider important changes that may lead to greater investment. and growth. It is important to detail the large part of the population that today lives alone and how it is already being an important indicator for supply and demand, to determine the behavior and preferences of a market that has a different lifestyle and that each time, there are more inhabitants who adopt it. Relevant data obtained from the study is also the change in sources of income, the evolution of how a family nucleus obtains various incomes and more than one member works to achieve a standard of living that allows them to survive,

## Bibliographic references

1. April-Lalonde, G., Latorre, S., Paredes, M., Hurtado, M. F., Muñoz, F., Deaconu, A., \& Batal, M. (2020). Characteristics and motivations of consumers of direct purchasing channels and the perceived barriers to alternative food purchase: A cross-sectional study in the Ecuadorian andes. Sustainability, 12(17), 6923.
2. Baker, M., Ruback, R. S., \& Wurgler, J. (2007). Behavioral corporate finance. In Handbook of empirical corporate finance (pp. 145-186). Elsevier.
3. Colander, D., Goldberg, M., Haas, A., Juselius, K., Kirman, A., Lux, T., \& Sloth, B. (2009). The financial crisis and the systemic failure of the economics profession. Critical Review, 21(2-3), 249267.
4. Xiao, J. J. (2008). Applying behavior theories to financial behavior. Handbook of consumer finance research, 69-81.
5. GBM. (2022). Finance at the Service of Equitable Recovery Overview. World Bank Group.
https://openknowledge.worldbank.org/bitst ream/handle/10986/36883/211730ovSP.pd f
6. Mien, N. T. N., \& Thao, T. P. (2015). Factors Affecting Personal Financial Management Behaviors: Evidence from Vietnam. Proceedings of the Second AsiaPacific Conference on Global Business, Economics, Finance and Social Sciences ISBN: 978-1-63415-833-6, 10-12.
7. Morán, MGG, Vega, JFY, \& Mora, CRA (2018). Analysis of the relationship between monthly family income and the cost of the basic food basket in Ecuador. Period 1982 - 2017. ESPACIOS Magazine,

39(47), 36.
http://www.revistaespacios.com/a18v39n4 7/18394736.html
8. Nababan, D. dan I. S. (2012). Analisis Personal Financial Literacy dan Financia Behavior Mahasiswa Strata 1 Fakultas Ekonomi ( Jurnal), Medan: Universitas Sumatera Utara, 1-16.
9. Nidar, S. R., \& Bestari, S. (2012). Personal Financial Literacy Among University Students (Case Study at Padjadjaran University Students, Bandung, Indonesia).
10. World Journal of Social Sciences, 2(4), 162-171. Novita, T. dan Maharani (2016). Pengaruh Personal Financial Literacy, Financial Attitude terhadap Financial Management Behavior Mahasiswa S1 Fakultas Ekonomi Universitas Andalas. Diploma Thesis, Univeritas Andalas.
11. Pankow, D. (2012). Financial Values, Attitudes and Goals, 591(August), 4. www.ag. ndsu.edu/agcomm/creativecommons
12. Parahiyangan, F. A. (2013). Pengaruh Kontrol Diri Dan Orientasi Masa Depan Terhadap Sikap Pengelola Keuangan Dan Perilaku Pengelolaan Keuangan Keluarga. Surabaya: Sekolah Tinggi Ilmu Ekonomi Perbanas.
13. Pérez-Campdesuñer, R., García-Vidal, G., Sánchez-Rodríguez, A., Martínez-Vivar, R., de Miguel-Guzmán, M., \& GuilarteBarinaga, E. (2021). Influence of the socioeconomic environment on the entrepreneurs behavior. Cases of cuba and ecuador. International Journal of Engineering Business Management, 13, 1847979021994509.
14. Reyes Vera, JF (2020). Inflation and its Incidence on Household Consumption Expenditures in Ecuador, Period 2008-
2020. State University of the South of Manabí "UNESUM."
15. Sampieri, RH, Collado, CF, \& Baptista Lucio, M. del P. (2014). Research Methodology (6th ed.). McGRAW-HILL.
16. Shefrin, H. (2001). Behavioral corporate finance. Journal of applied corporate finance, 14(3), 113-126.
17. Haws, K. L., Bearden, W. O., \& Nenkov, G. Y. (2012). Consumer spending self-control effectiveness and outcome elaboration prompts. Journal of the Academy of Marketing Science, 40, 695-710.
18. SNI (2010). Economic indicators. National Information System. http://indestadistica.sni.gob.ec/QvAJAXZf c/opendoc.htm?document=SNI.qvw\& host=QVS@kukuri\&anonymous=truehttp:/ /indestadistica.sni.gob.ec/QvAJAXZfc/ope ndoc.htm?document= SNI.qvw\& host=QVS@kukuri
\&anonymous=true\&bookmark=Document/ BM40
19. The universe. (2021, August 25). Inequality, unemployment, debts, some effects of COVID in Ecuador, according to a Unicef study. The Universe newspaper. https://www.eluniverso.com/noticias/ecuad or/la-unicef-da-a-conocer-los-efectos-
adversos-de-la-pandemia-y-pide-acciones-al-gobierno-de-ecuador- note/
20. Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: what we know and what we need to learn. Journal of the academy of marketing science, 28, 67-85.
21. Yu, T., Lin, Z., \& Tang, Q. (2018). Blockchain: The introduction and its application in financial accounting. Journal of Corporate Accounting \& Finance, 29(4), 37-47.

