

**DEVELOPMENT OF THE EQUATION FOR THE GENERATION OF WEALTH IN PUEBLA COMPANIES AFTER COVID-19****M.I. José Eduardo Morales-Ramírez\*<sup>1</sup>, Dra. María Luisa Juárez Hernández<sup>1</sup>, M.A. Elvira Elizabeth Cortes-Aguirre<sup>1</sup>, M.T.E. Rafael Tovany-León<sup>1</sup>, M.E. Antonino Benito Piña-Natoli<sup>1</sup> & Dr. Manuel González-Pérez<sup>1,2</sup>**<sup>1</sup>Tecnológico Nacional de México campus Tepeaca Puebla. (TecNM campus Tepeaca)<sup>2</sup>PhD, Colegio Interdisciplinario de Especialización, A.C. Puebla, México**DOI: 10.5281/zenodo.5547811****KEYWORDS:** wealth, habits, company, financial education, Covid-19.**ABSTRACT**

This research aimed to determine the equation for the generation of wealth in Puebla companies after Covid-19, considering different variables, such as saving habits and financial education. The equation shows how different elements of wealth are related. Abundance and wealth are measurable attributes and have study mechanisms to understand the variables that generate abundance. A descriptive study of the information was carried out through the application of a research instrument. Companies from Puebla participated and responded to the instrument; the research shows evidence of the experimental relationship between financial education, new habits, and generation of wealth. As a result, this article exposes the measurement of the most frequent variables in wealth and their relationship verified through Chi-Square. The result demonstrated an equation for the creation of abundance; therefore, this equation derived from the verification of two hypotheses per chi-square represents an alternative for the economic reactivation of Puebla companies after Covid-19.

**INTRODUCTION**

Through a wealth generation methodology, newly created companies apply disruption, digital technology for growth in products, services, business design, and financial education as an essential link to improve the standard of living of entrepreneurs and people in general.

Financial education tools and disruptive thinking are established as essential mechanisms. This mechanism allows the generation of wealth, not only for the current scenario but to create a stable economy based on defensive principles and strategies against future threats.

Finally, the main elements of financial education, disruptive thinking, and the adoption methodology in organizations that allow the generation of wealth in Puebla companies are exposed after the 2021 pandemic in Puebla, Mexico.

The Bank of Mexico estimates a GDP growth scenario for this year (2021) of 3.3. This scenario represents risks for the growth of the national economy. Financial education is a strategic instrument that must accompany the new process to regulate the financial system efficiently.

Financial education is accessible, benefits the whole group, reduces risks, and promotes financial inclusion by encouraging consumers to plan, invest and save with less risk (Feldkircher, 2014). Puebla companies must apply financial education tools and disruptive thinking to generate wealth.

Amezcuca García (2014) establishes that financial education guarantees responsible use of income. Puebla companies are going through a time of crisis, changes, and threats derived from the Covid-19 pandemic. Most SMEs and informal businesses are unaware of financial education tools and disruptive thinking for generating wealth.

Financial independence requires applying leadership principles in the economic sphere, maturity of character, and a clear vision (Borghino, The Art of Making Money, 2006). Financial education is a process by which consumers



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understand and apply the elements of financial products. At the same time, they acquire a more excellent knowledge of financial risks in their decisions.

Financial education also allows them to perceive market opportunities with adequate information (Nilsson, 2020).

Borghino (2020) affirms that to solving the crisis, it is necessary to know what disruption is: alteration of the norm, activity, or process, abrupt change in the game's rules. The enormous level of satisfaction explains the success of the disruption that each entrepreneur produces in the consumer today lives immersed in the digital age.

Disruptive is associated with a displacement or elimination of a competitor to another market. Disruptive can be done with improvements in knowledge or new knowledge. In addition, disruption must affect both suppliers and users, either creating value or destroying value (Carolina Rojas, 2018).

One of the essential premises in financial education is “they ensure that what you buy adds up and does not rest.” Any necessary purchase that has no future recovery value or is not intended to generate income will permanently lose money (Borghino, 2018).

We must make our budget and make decisions individually so as not to fall into errors. On the other hand, past experiences should not determine the decisions of the present because the context has changed in this way. Financial education is vital to avoid making mistakes that may affect people and their families (Rubén Chomy).

It is necessary to have a broad and clear vision regarding financial decisions. An example is in Silicon Valley (California), where the business system, education, and society function as a virtuous circle reinforcing innovation.

On the other hand, The Father of Lean Start-Up, Steve Blank (2010), insists on a series of social codes as keys to business success and using failure as a learning opportunity.

Professor Steve Blank (2010) also adds collaboration, which is interpreted as helping others in their entrepreneurial adventures in an altruistic and disinterested way. This simple attitude generates an exchange of favors whose combination is decisive to boost business.

After the Covid-19 pandemic in the world and the alteration in different sectors, including the economic one, it is essential to contribute to the economic reactivation of the State of Puebla. In 2020 the loss of 49,000 jobs due to the Covid-19 pandemic was reported. Puebla's Companies will choose to establish recovery mechanisms to avoid the closure of their sources of income, predicting the manager of the Poblano Financial Group (2021).

An alternative for start-ups or companies that go through significant financial havoc is to grow through disruption or buy companies that can become long-term assets. Also, financial education and digital technology have a significant role to play. Growth in products, services, business design, and wealth generation, says Borghino (2019).

Experts establish that the lack of financial education and disruptive thinking puts Puebla companies at risk of crisis after the 2021 pandemic. They also establish mechanisms that allow the integration of financial education and disruptive thinking in families and companies in Puebla. for the generation of wealth. Financial education works for the current scenario and creates a robust economy based on defensive principles and strategies against future threats.

However, by those above, the following approach is established to be resolved:

What are the main elements of financial education, disruptive thinking, and the adoption methodology in organizations to allow growth in companies during the pandemic in 2021 in the city of Puebla?



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### MATERIALS AND METHODS

The study is non-experimental, where the study variables are observed, and there is no intervention in manipulating the variables. In this research, an instrument is designed and applied to measure the relationship between the dependent and independent variables so that it will be a prospective study,

A single measurement will be made, so the research is cross-sectional. It works with more than one variable, so the study is multivariate, that is, analytical. This study was carried out in the State of Puebla with 20 entrepreneurs. These entrepreneurs face the ravages of the post-2021 pandemic economic recession.

The research shows an instrument to measure the relationship between financial education and disruptive thinking. The questionnaire was previously validated in a pilot test, and Pearson's correlation methodology was used.

After excluding the hypotheses tested by Pearson, two hypotheses are exposed for the statistical analysis with Chi-square with the confidence intervals at 95%. Below is the questionnaire divided into three phrases with their respective variables.

*Table 1 Questionnaire relationship between disruptive thinking and financial planning for wealth generation.*

Syntagmas	Ítems	Reactivos
Disruptive thinking	Item1	A1 How important is it to you to constantly reinvent your products or services in your business?
	Item2	A2 How important do you consider innovation in your business?
	Item3	A3 How important do you consider that changing your habits was to improve your income generation?
	Item4	A4 How important was it for you to live moments of lack and stress to generate solutions in relation to your income generation?
	Item5	A5 How important do you consider to differentiate yourself in a positive and radical way from the competition?
Financial education	Item6	B1 To improve your income, how important was it to learn about money and how it works?
	Item7	B2 How important do you consider never spending more than you earn, that is, that your expenses are not more than your income over a period of time?
	Item8	B3 How important do you consider solving the problems of your customers through your business to generate income in your company?
	Item9	B4 How important is it to you to start projects, travel and investments with a budget?
	Item10	B5 How important do you consider it to be to account for your expenses?
Richness	Item11	C1 How important do you consider controlling impulses and short-term pleasures to achieve greater long-term well-being?
	Item12	C2 How important do you consider reinvesting your profits rather than spending them on luxuries?
	Item13	C3 How important do you consider to use money as a tool and not as an end that I enslaved?
	Item14	C4 How important is it for you to earn more income to reinvest it and not earn more to spend more?
	Item15	C5 How important do you consider cultivating thoughts of wealth?



RESULTS AND DISCUSSION

Below are the results by Pearson and chi squared for the generation of the linear equation

Table 2 values found applying Pearson's correlation

	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
A1	1														
A2	0.74	1													
A3	0.28	0.68	1												
A4	0.18	0.52	0.94	1											
A5	0.52	0.3	0.32	0.5	1										
B1	0.37	0.49	0.39	0.4	0.4	1									
B2	-0.2	-0.4	-0.4	-0	0	-1	1								
B3	0.68	0.58	0.3	0.3	0.8	0.2	0	1							
B4	0.62	0.63	0.6	0.6	0.8	0.7	-0.2	0.7	1						
B5	0.65	0.6	0.59	0.5	0.6	0.4	0	0.5	0.87	1					
C1	0.42	0.45	0.82	0.7	0.4	0.3	-0.2	0.2	0.6	0.72	1				
C2	-0.1	0.02	0.23	0.2	0.1	-1	0.8	0.2	0	0.2	0.15	1			
C3	0.57	0.36	0.49	0.5	0.5	0.4	-0.3	0.3	0.61	0.53	0.74	-0.14	1		
C4	0.59	0.7	0.61	0.6	0.6	0.1	0	0.9	0.62	0.52	0.45	0.423	0.43	1	
C5	0.52	0.68	0.77	0.8	0.8	0.4	-0.2	0.8	0.75	0.59	0.59	0.229	0.49	0.88	1

Table 2. Shows values from the range 0.7 to 1 highlighted in pink, this range represents the hypotheses of two variables correlated by the Pearson method.

Formulae

Chi-square distribution Hypothesis test.

Parameters:

Degrees of freedom	GL =	1
Theoretical Chi	c =	3.84
p value	a =	0.0500435 5.00%
Confidence	IC =	0.9499565 95.00%
Chi observed	c =	5.3
	y =	0.0122431
p value	a =	0.0213254 2.13%
Confidence	IC =	0.9786746 97.87%
Universal parameters.		
Theoretical Chi		3.8414588
p value		0.05 5.00%
Confidence		0.95 95.00%



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*Table 3 Summary of nonlinear hypotheses tested by Pearson and Chi square*

No	Pair Items	Sylogism or inference (hypothesis to be tested)	Pearson	Chi square Average, calculated	Proven hypothesis
2	(1,2)	If it is important for you to constantly reinvent your products or services in your business then you consider innovation in your business important	0.741825369	4.44	Constantly reinventing the products or services in your business generates innovation.
16	(2,1)	If you consider innovation important in your business then it is important for you to constantly reinvent your products or services in your business.	0.741825369	4.44	Considering innovation in business generates constant reinvention of products and services.
34	(3,4)	If you consider it important to change your habits to improve your income generation, then you consider that it was important for you to live moments of lack and stress to generate solutions in relation to your income generation	0.941468872	10	Frequently changing habits to improve income generation depends on taking into account the importance of not reliving moments of deprivation and stress of generating income.
48	(4,3)	If you consider that it was important for you to live moments of lack and stress to generate solutions in relation to your income generation, then you consider it important to change your positive habits to improve your income generation	0.941468872	10	The importance of not reliving moments of deprivation and stress to generate income causes changing positive habits.
84	(6,9)	If it is important to learn about money and how it works to improve your income then it is important for you to start projects, travel and investments on a budget.	0.7	6.4285714 29	The importance of learning about money improves income and potentiates starting investment projects and trips.
126	(9,6)	If it is important for you to start projects, travel and investments on a budget then it is important to learn about money and how it works to improve your income.	0.7	6.4285714 29	The importance of starting projects, trips and investments generates the importance of learning about money and how it works.

Once the above data has been obtained, the following can be determined:

*Table 4 Hypotheses tested by Pearson and Chi square*

Constantly reinventing the products or services in a business generates innovation.
Considering innovation in business generates constant reinvention in products and services.
Changing habits to improve income generation depends on not reliving moments of deprivation and stress due to lack of income.
The importance of not reliving moments of deprivation and stress to generate income causes changing positive habits.
The importance of learning about money improves income and potentiates starting projects and investment trips.
The importance of starting projects, trips and investments generates learning about money and how it works.

**Equation for wealth generation**

However, a linear regression equation is established with the data obtained from the entrepreneurs in the tested hypotheses.

*Table 5 Percentage of income generation applying disruption and financial education after the 2021 pandemic by Covid-19*

Businessmen	Percentage of income generation applying disruption and financial education after the 2021 pandemic	Constantly reinventing the products or services in a business generates innovation.	Changing habits to improve income generation depends on not reliving moments of deprivation and stress due to lack of income.	The importance of starting projects, trips and investments generates learning about money and how it works.
1	0.9	10	10	8
2	0.95	8	6	8
3	1	8	10	8
4	1	8	10	10
5	0.98	6	8	8
6	0.1	10	10	10
7	0.95	8	10	8
8	1	8	10	8
9	0.99	10	10	10
10	0.95	10	8	8
11	1	10	10	8
12	1	6	4	6
13	0.95	10	10	6
14	0.98	10	10	10
15	0.95	6	6	4
16	1	10	10	10
17	0.99	8	10	8
18	0.99	8	10	10
19	1	10	10	10
20	1	10	4	8
<b>TOTAL</b>	<b>18.68</b>	<b>174</b>	<b>176</b>	<b>166</b>



Table 6 strategic analysis for linear equation

Regression statistics	
Multiple correlation coefficient	0.234341332
Coefficient of determination R <sup>2</sup>	0.05491586
R <sup>2</sup> adjusted	-0.12228742
Typical error	0.209983096
Observations	20

Variance analysis					
Degrees of freedom	Sum of squares	Average of squares	F	Critical value of F	
Regression	3	0.04099359	0.01366453	0.309903185	0.81791782
Waste	16	0.70548641	0.0440929		
Total	19	0.74648			

	Coefficients	Typical error	T statistic	Probability	Lower 95%	Superior 95%	Inferior 95.0%	Superior 95.0%
<b>Interception</b>	<b>1.229027387</b>	<b>0.31214607</b>	<b>3.93734698</b>	<b>0.001177429</b>	<b>0.56730728</b>	<b>1.8907474</b>	<b>0.5673072</b>	<b>1.8907</b>
Constantly reinventing the products or services in a business generates innovation.	<b>-0.02030842</b>	<b>0.03847113</b>	<b>-0.5278873</b>	<b>0.604822094</b>	<b>0.10186357</b>	<b>0.0612467</b>	<b>0.1018635</b>	<b>0.0612</b>
Changing habits to improve income generation depends on not reliving moments of deprivation and stress due to lack of income.	<b>-0.00083824</b>	<b>0.02796305</b>	<b>-0.0299767</b>	<b>0.976456397</b>	<b>0.06011725</b>	<b>0.058440</b>	<b>0.0601172</b>	<b>0.0584</b>
The importance of starting projects, trips and investments generates learning about money and how it works.	<b>-0.01336959</b>	<b>0.03819776</b>	<b>-0.3500099</b>	<b>0.730896224</b>	<b>0.09434523</b>	<b>0.0676060</b>	<b>0.0943452</b>	<b>0.0676</b>

$$\hat{y} = 1.22902738674175 - 0.0203084 X_1 - 0.000838239 X_2 + 0.01336959 X_3$$



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$\hat{y}$ = Percentage of income generation applying disruption and financial education after the 2021 pandemic.

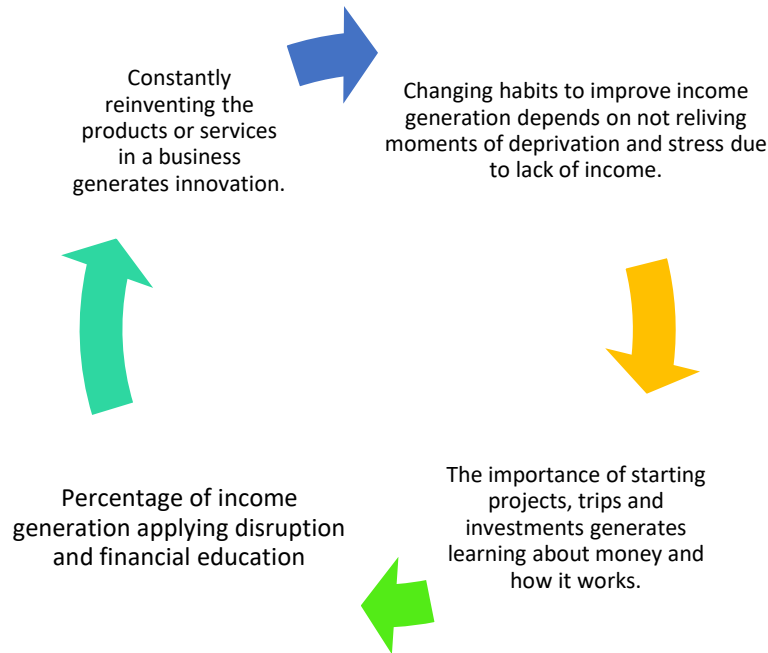


Figure 1 virtuous circle of income generation

## Equation for wealth generation

Percentage of income generation applying disruption and financial education =  $\hat{y}$

$\hat{Y}$  = Income generation coefficient + Constantly reinventing products or services in a business generates innovation X + Changing habits to improve income generation depends on not reliving moments of deprivation and stress due to lack of income + The importance of starting projects, trips and investments generates learning about money and how it works X

$$\hat{y}=1.22902738674175 - 0.0203084X1 - 0.000838239 X2 - 0.01336959X3$$

## CONCLUSION

There is evidence to affirm that constantly reinventing products or services in a business generates innovation. Changing habits to improve income generation depends on not reliving moments of lack and stress due to lack of income. The importance of starting projects, trips, and Investments generates learning about money and its operation. Applying all the above generates the ability to increase income in Puebla companies after the Covid-19 pandemic.

The study found that most Puebla entrepreneurs have a lifestyle that allows them to generate income from daily habits and financial tools. Likewise, these elements are necessary for the generation of income. This knowledge is transferred to other companies and allows valuable tools such as savings, administration, innovation, and the excellent use of money.

On the other hand, retraining the mind and practicing wealth thoughts seems to be a fundamental part of generating income and as important as planning, generating budgets, and having clear goals with money.

In addition to the above, understand that the thoughts and ideas that limit us are not life. These are detached from the mind, which is the experience we have had during life. The family, the environment, and the society where





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we grow up are present, hence the beliefs that drive or limit us. Changing these limiting beliefs and old habits based on new and better beliefs allows us a new thought in business and the rest of our lives.

The equation for generating income in the company means changing to a new stage. In this new stage, you can live well ahead of the competition. Businesses with a revenue-generating equation contribute significantly to the lives of customers. In turn, these companies create opportunities in financial education.

It is also concluded that financial education is a crucial element for the generation of wealth. Financial education allows us to evaluate ourselves if we live in emotional shopping. With this education, the individual evaluates whether he spends more than he earns. The individual without financial freedom or generous savings lives a short-term life that later turns into a life of uncertainty.

This study helps inspire individuals and entrepreneurs to:

a) having new ways of thinking, b) keeping track of savings, income, and expenses, c) generating individual and collective awareness.

We must be aware that our financial responsibility depends 100% on us and the control we take in our own lives.

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