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# Impact of value accounting, cost accounting, and mortgages on the financial crisis

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# Abstract

The study aims to investigate the impact of value accounting, cost accounting, and mortgages on the financial crisis via descriptive and deductive approaches. The result of this study shows that all three variables have a significant and positive relationship with each other; these variables are further tested to confirm the results achieved by the Person correlation matrix. In conclusion, if the alternative is used to provide credible information to the regulators, it should work to provide both credible future obligations and the resources that are required to fulfill those obligations.

Keywords: Value accounting, Mortgages, Financial crisis.

# Impacto de la contabilidad de valor, contabilidad de costos e hipotecas en la crisis financiera

### Resumen

El estudio tiene como objetivo investigar el impacto de la contabilidad del valor, la contabilidad de costos y las hipotecas en la crisis financiera a través de enfoques descriptivos y deductivos. El

resultado de este estudio muestra que las tres variables tienen una relación significativa y positiva entre ellas, estas variables se prueban para confirmar los resultados logrados por la matriz de correlación de la Persona. En conclusión, si la alternativa se utiliza para proporcionar información creíble a los reguladores, debería funcionar tanto para proporcionar obligaciones futuras creíbles como para los recursos necesarios para cumplir con esas obligaciones.

**Palabras clave:** Contabilidad de valor, Hipotecas, Crisis financiera.

#### **1. INTRODUCTION**

Fair value market is a price paid to transfer a liability between knowledgeable and willing parties or it can also be defined as FVA is a price that is received to sell an asset. Under idealized conditions, fair value accounting establishes a hypothetical market price or it can be said that FVA is a market-based portion of the value. People blame FVA for not fulfilling the expectations to raise clarity in financial reporting. The issue of fair value accounting has gained so much popularity especially when the global crisis hits the United States and the other western countries. On the other hand, the subprime mortgage becomes a global crisis just because of the poor lending practices in countries like Spain, Ireland, and England or because of the unmaintainable growth in countries like China and India.

In today's world, accountants play an essential role in the process of accounting measurement. This accounting measurement process is needed when the accountants are evaluating the assets and liabilities to prepare financial statements for banks. The central bank is supervising and controlling these financial statements along with public interest and the objectives and economic plans of the country. The four financial statement process clearly reflected the choice made by accounting measurement, the four financial processes is profit and loss statement, balance sheet, cash flow statement and statement of changes in equity (ALEXANDER, BONACI & MUSTATA, 2012).

The financial statements help managers to provide relevant information on how to assess the organization's ability to generate cash flow. It delivers the information on available resources of funds and also provides information on how to use these funds (such as angel investments, distributions, loans to and from the organization). In today's volatile and changing business environment fair value accounting provides increase transparency as compared to historical cost accounting. The attentiveness in the assets and liabilities measured at fair value, in only to provide the investor information. This information helps investors all over the world in making appropriate investment decisions. Those financial statements that are prepared in accordance with fair value accounting, achieved a key benefit to investors.

The real allegations about fair value integrate with the excessive leverage in the boom period. This valuation raises the depreciation which creates even greater problems if the surroundings for an asset that an organization values just like fair value turns illiquid. The aim of this study is to provide relevant literature and for finding the methods and techniques that are used to find out the relationship between fair value account and its impact on the global financial crisis. The current financial crises lead to gain insights into the implementation of FVA and the consequences that can drive from its adoption. An accounting professor wrote in a magazine: Fair value accounting does not create the financial crisis; it was the reflection of many bad decisions such as credit default swaps, and subprime mortgages.

The primary objective of this study is to find the real culprit behind the global financial crisis and for that this reason three factors are taken into consideration to test for the research hypothesis. To identify the real cause financial crisis is taken as the dependent variable and fair value accounting, historical cost accounting, and subprime mortgages are taken as the independent variables of the research.

1. To identify the influence of Fair Value Accounting on Financial Crisis.

2. To explore the impact of Historical Cost Accounting on Financial Crisis.

3. To identify the effect of Subprime Mortgages on Financial Crisis.

Many accounting professionals claim that the practice of fair value accounting (FVA) over the HAC is the main reason behind the current financial crisis while on the other hand, some financial experts

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are claiming that subprime mortgages lead the banking industry to bankruptcy which causes the international financial crisis. The aim of the study is to identify the role of fair value accounting in the financial crisis and to find out the other possibilities that are claiming of being the real cause behind the global financial crisis( Dokpesi, 2015).

The study is the focus to identify the character of FVA in the global financial crisis. The study will also investigate the two other factors like subprime mortgages and historical cost accounting to find out the real cause that leads the world into the current financial distress. Global financial institutions are trying to find out the solution to end this threatening financial crisis but the problem cannot be solved unless they find the real reason behind the financial distress. The question arises that fair value accounting is the only cause of the crisis or the historical cost accounting and subprime mortgages are the real factors that lead the world into crisis.

What is the role of Fare Value Accounting, Historical Cost Accounting, and Subprime mortgages in the accounting system and which of these factors are impacting the international financial crisis?

H1: Fair value accounting is positively effecting the financial crisis.

H2: Historical cost accounting is positively impacting the financial crisis.

H3: Subprime mortgage is positively effecting the financial crisis (ŠKODA & SLÁVIKOVÁ, 2015).

#### 2. METHODOLOGY

This section will define the design and methodology selected for this study. The main objective of this section is to develop a flawless design and methodology which helps in testing the variables accurately to get the results for the problem. This section will create the base to find out a positive or negative relationship between independent and dependent factors (MAYER, PENCE & SHERLUND, 2009). The methods and design of this study are taken by following the research onion which was presented in the book "The methods of business research." The factor or variables chosen for this study are fair value accounting, historical cost accounting, and subprime mortgages which are independent variables, while the dependent variable is the financial crisis. By following the research onion, the purpose, data collection technique, the strategy of the study, and time horizon are selected as methods and the required design (CHEA, 2011).

Descriptive research is taken as the purpose of the study because the combination of its functions correlational statistics and summary, along with its focus in particular research methods, questions and results are what makes descriptive research different from the other types. The three main factors of this purpose are to explain, describe, and validate results. To collect the data survey strategy is applied because data will be collected in a standardized form. Survey strategy suits best the descriptive Impact of value accounting, cost accounting, and mortgages on the 1149 financial crisis

studies but it can also be used to evaluate the aspects of any situation (ARENTSEN, MAUER, ROSENLUND, ZHANG & ZHAO, 2015).

The research is also applying the deductive approach as it is focused on testing theory and generates new theories emerging from data. The topic of this study is studied before but this research will fill a few gaps that are not covered in the prior research (HAMMOUR, 2016). The sample size is taken as 120 and it will be accurately calculated by using a survey monkey sample size calculator. Furthermore, the data testing will be conducted on the statistical package for the social sciences (SPSS) by using a different testing tool such as regression analysis, demographics, and Pearson correlation (SMITH & SMITH, 2014). By considering the several limitations, the time horizon is selected as cross-sectional which is suitable for descriptive purpose and deductive approach. The study will cover professor university professors and external auditors as the main population of this research. This design and different methods will now lead to a theoretical framework that will help the reader to understand the problem more clearly (EMERSON, KARIM & RUTLEDGE, 2010).

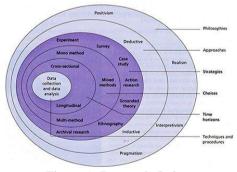


Figure 1: Research Onion

Table 1: Cronbach's Alpha Authors Own							
Case Processing Summary							
		Ν	%				
Valid		28	100.0				
Cases	Excluded <sup>a</sup>	0	.0				
	Total	28	100.0				
a. Listwise procedure.	a. Listwise deletion based on all variables in the procedure.						
Reliability Statistics							
Cronbach's Alpha N of Items							
	.935 20						

## **3. RESULTS**

The results of the pilot testing show that for the 20 number of respondents the Cronbach's alpha is 0.935 which proves that the questionnaire is authentic and reliable and there is no need for further corrections in it. The section will show the results obtain by primary and secondary data collection. The primary and secondary data are tested for hypothesis using SPSS software. The data is tested on two different testing tools that are Pearson correlation and regression analysis (SREEKANTHA & KULKARNI, 2013).

The regression analysis provides three different tables that are ANOVA, Model summary and Coefficients, while the Pearson

correlation will show the table of the correlation matrix. These tables contain the desired results that will show the approval and rejection of the hypothesis. This section also includes the demographic profile of the respondents, there will be three tables such as age, gender, and profession.

Age					
		Frequency	Percent	Valid Percent	<b>Cumulative Percent</b>
	20 - 30	7	5.8	5.8	5.8
	31 - 40	13	10.8	10.8	16.7
Valia	1	48	40.0	40.0	56.7
vanc	51 - 60	49	40.8	40.8	97.5
	61 - above	3	2.5	2.5	100.0
	Total	120	100.0	100.0	

Table 2: Age of the Respondents Authors Own

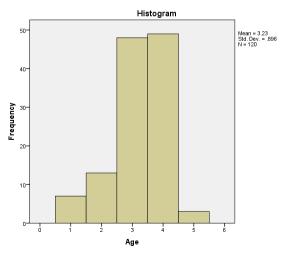


Figure 2: Histogram for Age Authors Own

Gende	r				
		Frequency	Percent	Valid Percent	<b>Cumulative Percent</b>
	Male	81	66.9	67.5	67.5
Valid	Female	39	32.2	32.5	100.0
	Total	120	99.2	100.0	
Missing	gSystem	1	.8		
Total		121	100.0		

Table 3: Gender of the Respondent Authors Own

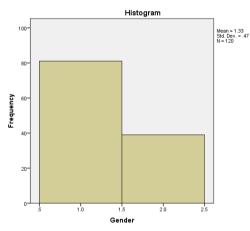


Figure 3: Gender of the Respondents Authors Own

Profess	sion				
				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	External Auditors	41	33.9	34.2	34.2
	University Professors	79	65.3	65.8	100.0
	Total	120	99.2	100.0	
Missing	gSystem	1	.8		
Total		121	100.0		

Table 4: Profession of the Respondents Authors Own

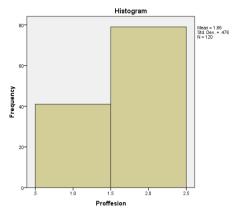


Figure 5: Profession of the Respondents Authors Own

Corre	elations				
		FVA	HCA	SM	FC
	Pearson Correlation	1	.845**	.830**	$.818^{**}$
FVA	Sig. (2-tailed)		.000	.000	.000
	Ν	120	120	120	120
	Pearson Correlation	.845**	1	.811***	.853**
HCA	Sig. (2-tailed)	.000		.000	.000
	Ν	120	120	120	120
	Pearson Correlation	.830***	.811**	1	.791**
SM	Sig. (2-tailed)	.000	.000		.000
	Ν	120	120	120	120
	Pearson Correlation	.818**	.853**	.791**	1
FC	Sig. (2-tailed)	.000	.000	.000	
	Ν	120	120	120	120

Table 6: Pearson Correlation Matrix Authors Own

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The correlation matrix is used to understand the positive or negative relationship between the independent and dependent variable which will be acquired by the significance level. The Pearson correlation matrix is showing a positive and significant relationship between all the variables which are Fair value accounting, historical cost accounting, subprime mortgages, and financial crisis as their level of significance is (0.00). The Pearson correlation matrix is also showing the value of "r" of all the variables selected for this study. Fair value accounting has ( $r = .731^{**}$ ), Historical cost accounting have ( $r = .845^{**}$ ), Subprime mortgages have ( $r = .830^{**}$ ) and Financial crisis have ( $r = .818^{**}$ ).

Hypothesis	Significance Level (Significance Level 95% Confidence Interval)	Hypothesis Accepted / Rejected
H1: Fair value accounting is positively effecting the financial crisis.	0.00	Accepted
H2: Historical cost accounting is positively impacting the financial crisis.	0.00	Accepted
H3: Subprime mortgage is positively effecting the financial crisis.	0.00	Accepted

Table 7: Hypothesis Testing Authors Own

Model S	Summary⁵			
Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.877 <sup>a</sup>	.769	.764	.458
D 1'				

a. Predictors: (Constant), SM, HCA, FVA

b. Dependent Variable: FC

ANOVA <sup>a</sup>
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Mode		Sum of Squares	df	Mean Square	F	Sig.
	Regression	81.154	3	27.051	129.067	.000 <sup>b</sup>
1	Residual	24.313	116	.210		
	Total	105.467	119			

a. Dependent Variable: FC

b. Predictors: (Constant), SM, HCA, FVA

Table 8: Model Summary, ANOVA, and Coefficients Authors Own

Coefficients						
Unstandardized		Standardized				
Model		Coefficients		Coefficients t		Sig.
		В	Std. Error	Beta		
	(Constant)	.384	.147		2.609	.010
1	FVA	.237	.091	.246	2.617	.010
1	HCA	.413	.075	.494	5.515	.000
	SM	.197	.091	.186	2.159	.033
a. Dep	endent Va	riable: FC				

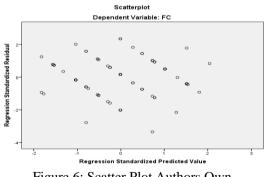


Figure 6: Scatter Plot Authors Own

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Hypothesis	T Statistics	P Value (95% C.I)	Hypothesis Accepted / Rejected
H1: Fair value accounting is positively effecting the financial crisis.	2.61	.010	Accepted
H2: Historical cost accounting is positively impacting the financial crisis.	5.51	.000	Accepted
H3: Subprime mortgage is positively effecting the financial crisis.	2.15	.033	Accepted

Table 9: Hypothesis Testing Authors Own

The Results of the regression analysis show that Hypothesis 1, Hypothesis 2, and Hypothesis 3 all are accepted. The table of model summary shows the value of adjusted "r square" which is (.764), the ANOVA table is showing the value of "F" which is (129) and in the last, the coefficient table is showing the significant value of all the three independent variables that are:

FVA (0.10), HCA (0.00), and SM (0.33) which means the significance value of these variables are less than P-value which is 0.05. Hence it can be said that all the hypothesis is accepted.

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H1: Hypothesis 1 which is Fair Value Accounting is positively effecting the financial crisis is accepted as its p-value is (.000) at 95% confidence level in the correlation matrix and its p-value is (0.10) in coefficient table. The result shows that hypothesis H1 is accepted.

H2: Hypothesis 2 which is Historical Cost Accounting is positively impacting the financial crisis is accepted as its p-value is (.000) at 95% confidence level in the correlation matrix and its p-value is (0.00) in coefficient table. The result shows that hypothesis H2 is accepted.

H3: Hypothesis 3 which is Subprime Mortgages is positively effecting the financial crisis is accepted as its p-value is (.000) at 95% confidence level in the correlation matrix and its p-value is (0.33) in coefficient table. The result shows that hypothesis H3 is accepted.

#### 4. CONCLUSIONS

The main objective of conducting this research is to understand the reason behind the 2008 financial crisis. To conduct this topic, it is important to have a clear understanding of fair value accounting, historical cost accounting and subprime mortgages because these are the three things that trigger the global financial crisis in 2008. There are three independent variables that are tested for this study which are fair value accounting, historical cost accounting, and subprime mortgages. The result of this study shows that all three variables have significant and positive relationships with each other; these variables are further tested to confirm the results achieved by the Person correlation matrix. These variables are then tested through regression analysis which also shows that all three independent variables are positively affecting the dependent variable.

Generally, many accountants and economists blame the fair value accounting system for the global financial crisis, but if we look deeper into the matter that there are many factors that are involved in triggering the global financial crisis. People usually blame those systems that are made by humans but they do not look into other factors that involve them such as short-sightedness, lack of professionalism, and ethical values. The allegations on fair value accounting are that it contributes to excessive leverage in boom periods which also leads to the excessive write-downs in busts. The write-down set off a downward spiral by depleting the capital of the banks. It is important to know that not all fair value accounting alterations enter the banks' regulatory capital computation. After completing this research, it can be concluded that somehow fair value accounting could have contributed to the global financial crisis and added to the severity of the financial crisis.

It is also important for investors to know about the risk that is posed to the financial system. Accounting itself is a very complex thing and it did not even serve people as a tool to avoid financial problems. If the accounting works to serve the benefits of investors, it makes sure the information provided is objective and also transparent Impact of value accounting, cost accounting, and mortgages on the financial crisis

as much as possible and it does not matter that the information is all about book value or FAV. Like the other rules of accounting, the rules of FAV are in need of theoretical correctness because FAV has the ability to benefit all kinds of enterprises and businesses. If those who are against FAV and who are making wrong allegations wants to abandon FAV, they must an alternative that benefits the investor in the end. If the alternative is used to provide credible information to the regulators, it should work to provide both credible future obligations and the resources that are required to fulfill those obligations.

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