

# How to Understand Earnings Management Across Identification of Discretionary Accounting and Financial Variables: The Case of Tunisian Companies

Dr. Fekiri Kamel<sup>1</sup>

<sup>1</sup> University of Tunis

*Received: 8 December 2018 Accepted: 2 January 2019 Published: 15 January 2019*

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## Abstract

This research work is part of the investigation of the determinants that taint the quality of accounting information disclosed on the Tunisian financial center and the incentives that enact Accounting policies conducted by managers and which are related to financial failure. To better understand this dilemma (manipulation of accounting data - financial failure) we have adopted an econometric approach allowing us to distinguish the discretionary accruals characterizing companies with high financial profitability from those specific to companies with low financial profitability and this, based on the postulate of the positive theory of accounting which considers that managers of companies experiencing difficulties make accounting choices to artificially embellish the published net result.

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**Index terms**— earnings management - discretionary accruals - financial failure.

## 1 Introduction

ased on the postulate of the positive theory ??immermann, 1986-1990), which considers that the directors of financially distressed companies, exploit the accounting information in their interests, we adopted an econometric approach to detect accounting manipulations by the income management method and by estimating, under ordinary least squares, the Modified Generalized Jones model, it was possible to confirm the existence of discretionary accounting manipulations in the accounting results published by the companies forming the sample studied throughout listing from 1999 -2014, on the Tunis Stock Exchange. The analysis of the significance and relevance of the model used allowed us to validate empirically this hypothesis concerning the management of the result. Other significant returns relating to the residual of the estimate were revealed by the regression that was conducted on the econometric model used. Indeed, the terms of the residual of the estimate, which summarize all the discretionary accruals or all the other exogenous variables not taken into account in the modeling, do indeed satisfy the stochastic and structural assumptions (relating to the bias and the convergence), in other words, these terms are governed by a normal centered, reduced law, and therefore, the sample studied perfectly induces the characteristics of the population it represents in terms of mean and variance. What led us in this article to push the analysis of the residual by distinguishing the companies that handle discretionary accruals upward from those that manage it downward, this approach is interesting, in the sense that it allowed us to divide the sample into two groups and to reveal the characteristics of the defensive strategy through exogenous explanatory variables of the adjustments of the accounting items of total regularization (total accruals). This process allowed us to verify the correlation between financial failure and the upward management of the result (defensive strategy).

### 3 Research Approach

[illegible]

The relative variation (see Table 6) of the exogenous variation in cash flow generated by the operation is on the average negative of -0.30% for the group that managed its earnings upwards (+4 % on average of discretionary accruals) versus a positive variation of 1.94% in the other group (-4% on average of discretionary accruals). This failure was found again at the level of the performance indicator variable, namely that of the change in turnover adjusted for any abnormal increase at the level of the receivables item, where there was a clear difference (7.73% for the sample F versus 8.76% in sample C). This finding is corroborated by research work such as that conducted by ?othari, Leone, and Wasley, (2001) . Finally, in this chapter we managed to make an important step in the exploratory study of the financial statement fraud's phenomenon by specifying the determining variables of the companies' financial failure that manages the result upwards and identifies at the same time the two samples (F and C). This approach can be used to perform a logistic regression of a fraud prediction model at the level of a new econometric Fraud Detection process research perspective at published financial statement levels.

The residual of the estimate corresponds to the discretionary accruals thus to all the other exogenous variables not taken into account in the modeling. As shown in Figure ?? -4, the residual of the estimate is highly dispersed between both positive and negative directions, so it is important to distinguish the two meanings of variation of the residual to identify the firms that manage discreetly their results upward (financially failing companies) of those who manage their results downwards (companies not financially failing). This approach is interesting insofar as it makes it possible to better understand the accounting and financial variables characteristic of the home of discretionary accruals. The generation of the two directions of variation is carried out by E Views software 9 as indicated in the table (3) with identification of the companies according to these meanings of variation of the average of the discretionary accruals (residuals of the estimate of the model (1)).

## 6 Sample

Following the econometric analysis carried out previously, which proved the effectiveness and relevance of the model tested (equation 1), to detect the management of the result, we were able to push its exploitation towards the distinction and the identification of the companies that manage the upward result (defensive strategy) of those who adopt a completely divergent strategy (offensive strategy). This procedure is justified in the work on the topic of accounting data management. Indeed, Kothari, ?eone and Wasley (2001) were able to verify that firms manipulating their results take into account the past and current performance of their economic activities. In other words, profitable firms use discretionary increments (offensive strategy) differently than unprofitable businesses (defensive strategy). This finding, confirmed in the research work on results management ??Dechow, 2010), was found in our empirical work. Indeed, the results (Tables 4, 5 and 6) of our study conducted on the sample of Tunisian companies listed in the BVMT, reveals that the companies that manage their results upwards (sample F) manipulate towards the increase in discretionary accruals up to (on average) + 4% of total assets

98 delayed versus -4% for companies that manage their results downwards (sample C). Another revealing result of  
 99 the characteristic of financial failure among the companies that manage the result upward, is that they display  
 100 an average negative cash flow variation of about -0.30% of the total assets delayed against a positive variation of  
 101 + 1.94% of total assets delayed among those who manage their results downward. This failure is also reflected  
 102 in the variable change in turnover adjusted for any abnormal increase at the level of the receivables item (7.73%  
 103 in the sample F versus 8.76% in the sample C). This procedure allowed us to identify two sub-samples "F" and  
 104 "C" of the same size ("F": 9 companies that manage the result upward and "C": 9 other companies that manage  
 105 the result towards the decline), which features the manipulations of discretionary accruals summarized by, The  
 106 total accruals are obtained by the following estimation model ( ??):

107 And the discretionary accruals then correspond to the difference between the observed value of the total  
 108 adjustments and the calculated value of so-called normal adjustments

109 We therefore measure earnings management from accruals explaining the difference between net income and  
 110 cash flow from operations (equation 1). Total accruals are based on normal accruals and abnormal or discretionary  
 111 accruals. Previous literature ??Dechow, 2013)

## 112 7 Conclusion

113 In Accounting Theory Literature, Operating cash flow is considered as a determinant of the level of non  
 114 discretionary accounting adjustment variables. Indeed, the relevance of this variable is justified by its negative  
 115 correlation (-0.402415) that is to say between the variation of the operating cash flow of two consecutive periods (t  
 116 -1 and t) and the level of current accruals. The small variation (-0.30%) of the flows in the sample F, explains that  
 117 a large part of the accruals level seems predetermined by the operating cash flow of the previous year, it is logical  
 118 to think that it is a non discretionary portion. We also note (Table 6) that the level of net fixed assets in the F  
 119 sample represents approximately 51% of the net assets delayed versus 47% in the C sample, which suggests the  
 120 sample F tends to minimize the calculated costs (low depreciation allowances or taken from large provisions) or  
 121 to an under-exploitation of the economic assets and consequently a low economic and financial profitability. This  
 122 work is part of an early preparation of a future research track on the interface accounting/failure of companies  
 123 and the modeling of prediction of financial failure vs. fraud through the accounting and financial variables  
 characterizing the incentives for manipulation of Accounting data.

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Year 2019

Volume XIX Issue IV Version I

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Global Journal of Management and Business Research

[Note: D]

Figure 1: Table 1 :

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Year 2019  
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XIX Issue  
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Global Journal of Manage- ment and Business Research	Industrial Activity	sector	DETAIL OF THE SECTOR	% IN THE SECTOR	Distribution by sector of activity SE	
	E1	COM- PANY	CHEMICAL INDUSTRY	10.00%		
	E2	CODE	CHEMICAL INDUS-	10.00%		
	E3	E4	TRY MECHANICAL	10.00%		
	E5	E8	INDUSTRY CHEMICAL	10.00%		
	E6		INDUSTRY HOUSE-	10.00%		
	E7		HOLD INDUSTRY	10.00%		
	E9		ELECTRIC INDUSTRY	10.00%		
			PHARMACEUTICAL INDUSTRY			
	E10		GLASS INDUSTRY	10.00%	I	5.26%
	E13		PNEUMATIC INDUSTRY	10.00%	I	5.26%
	E14		MILK INDUSTRY	10.00%	I	5.26%
	subtotal		10	100%	10	52.63%
1						

[Note: D]

Figure 2: Table 2 :

4  
2  
0  
-2  
-4  
-6  
-8  
-10

1 -99      1 -09      2   2   3   4   4   5   6   6   7   7   8   9   9   10   11   11   12  
-   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -  
03   13   07   01   11   05   99   09   03   13   07   01   11   05   99   09   03

Graph. (3 -4) : Standardized Residuals = Accruals discrétionnaires de la régression

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Figure 3:

	Company Ei				Average of				Median of the				Standard deviation of discretionary Accruals				
	Sample "F"				discretionary				discretionary								
					Accruals				Accruals								
	E1				9%				9%				6%				
	E3				2%				1%				6%				
	E4				4%				5%				9%				
Year 2019	E6 E7				4% 5%				3% 6%				10% 4%				
Volume XIX	E8 E12 E14				1% 4% 1% 6%				3% 5% -1% 6%				6% 9% 10% 9% 8%				
Issue IV Ver- sion I	E20 Average				4%				4%								
Global Jour- nal of Man- agement and Business Re- search ( )	Company Ej				Average of				Median of the				Standard deviation				
	Sample « C				discretionary				discretionary				of Accruals ? 9%				
	» E2 E5 E9				Accruals ? -4%				Accruals ? -5%				36% 4% 8% 9% 7%				
	E10 E13 E15				-7% -1% -1%				1% -2% 0% -5%				10% 17% 14% dis-				
	E16 E17 E18				-4% -1% -4%				0% -2% -9% -6%				cretionary				
	Average				-4%				-3%				13%				

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[Note: D]

Figure 4: Table 5 1

Statistics	Sample Type	AVCRT	it	Var	1	TA	it	Normal	?	?	?	?	it	FMO	?	1
		1 ? it			t	CA	?	Ac-	?	IMMO	?	TA	TA			it
		TA						cruals	AVCRND	it	?					
								: 1 ?	?1 it	TA 1 ?	it	?				
								1 ? i	TA it		?					
								t t Cr								
								Var								
Average		-0,73%														
Median	F	-0,65%														
Standard de- viation	(9 firmss)	10,22%														
Average		-8,95%														
Median	C	-6,29%														
Standard de- viation	(9 firms)	24,01%														

Figure 5: Table 6 :



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