AN EMPIRICAL INVESTIGATION OF THE VALIDITY OF THE POSITIVE THEORY IN DEVELOPING COUNTRIES: THE CASE OF THE KINGDOM OF SAUDI ARABIA

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SYNOPSIS: This paper extends accounting choice research to investigate variables affecting both single policy and portfolio strategy choices to developing countries. Because the validity of the positive theory hypotheses regarding accounting choice have not been tested outside the USA, the research provides a pioneer insight into the determinants of accounting choice in the Kingdom of Saudi Arabia (KSA).

Two sets of hypotheses related to economic factors and proposed environmental factors are developed and tested. Research findings indicate that there is strong evidence that accounting choice in the KSA is inconsistent with both political cost and debt/equity hypotheses. However, KSA accounting choice is generally consistent with the set of environmental variables hypotheses, mainly degree of conservatism and auditor preference. These Findings can be attributed to the lack of management awareness of the economic consequences of accounting choice, the minimum role of the political process in accounting choice, and the current early development stage of both accounting profession and accounting regulation in such developing countries.

Key Words: Positive Theory, Accounting Choice, Accounting Theory, International Accounting.

I. INTRODUCTION

Positive accounting research has utilized the economic consequences theories to explain the firm's accounting policy decisions, These theories are based on using combinations of variables representing management incentives to chose accounting methods under bonus plans, debt contracts, and the political process.

Hagerman and Zmijewski [1979], Zmijewski and Hagerman [1981], Bowen et al. [1988], Daley and Vigeland [1983], and Healy [1985] studied the effect of such firm-specific variables on the selection of both single policy choice and portfolio strategy choice by management in the USA.

Trombley [1989] extended the accounting choice research to identify characteristics of firms electing early adoption of SFAS No. 86. The most significant results of this branch of research have been found for size and for variables related to debt contracting. The latter study supported the evidence that early adoption of the standard is strongly associated with firms having small size and auditors who expressed support to the standard in the exposure draft stage.

Watts and Zimmerman [1990] dichotomized the criticisms of positive accounting research into two sets, those concerning research methods and those concerning methodology. Research method issues include reductions in tests' power, model specification, and problems specifying model variables and omitted variables. Among a number of possible enhancements, they suggested the need to discover unknown variables to improve positive research in accounting choice.

Given the fact that the majority of the positive research is being conducted with respect to the USA, this paper extends this research to one of the developing countries for two objectives. First, to test the validity of the current positive theory hypotheses for application outside the USA. Second, to develop a relevant positive theory model which may explain major factors affecting accounting choice in such countries.

The paper is organized as follows: A brief background of the Saudi accounting environment is described in Section II. Hypotheses to be tested under both current and proposed accounting theory models are developed in Section III. Section IV presents data, descriptive statistics, and multivariate tests of economic explanatory variables as related to both single policy ad accounting strategy choices in the KSA. Section V presents descriptive statistics, and multivariate tests of the proposed positive model for explaining accounting choice in the KSA. Section VI concludes the paper.

II. SAUDI ACCOUNTING ENVIRONOMENT

Saudi accounting standards and profession are in their early development stages. Almost no authoritative accounting bodies exist to support accounting regulation and practices. Chartered accountants are licensed through both the Saudi Ministry of Commerce and the Saudi Organization for Certified Public Accountants (SOCPA) under a limited set of academic and professional practice provisions. New local Saudi accounting standards (18 standards issued starting from 2000 as an effective date www.socpa.org.sa) to regulate some accounting practices. However, auditing standards were issued ten years earlier to cover standards of professional qualifications, independence, audit reports and evidence. There is a limited non regulated capital market in the KSA.

Saudi standard setting in its early development stages. In 1985 the Saudi Ministry of Commerce issued a decree concerning "Statement of Financial Accounting Objectives, Concepts, General Purpose Disclosure and Auditing Standards [1985]. Saudi and USA standards have a large commonality in terms of their Conceptual Framework and a large disagreement with the International Accounting Standards (IAS-IFRS). Disclosure standards have became mandatory since 1989, and have mandates only for disclosure presentation of income statement, balance sheet, statement of retained earnings, statement of changes in financial positions, and notes of financial statements. Other 17 standards were effective after 2000. Moreover, as operating in a gulf state - Saudi firms are required to apply the new Gulf Cooperation Council (GCC) accounting standards after 2005 (www.gccaao.org).

III. HYPOTHESES

Since the purpose of this study is to test the validity of current positive theory as it is applied to the Saudi environment, and to test the effect of other proposed variables on the accounting choice, two sets of hypotheses are developed and tested.

I. Hypotheses to Test the Validity of Current Positive Theory in the Saudi Environment

Positive accounting theory presumes that managers must be economically motivated in their accounting choices. So, they aim at optimizing the economic consequences of their choice. The current positive theory literature uses debt and compensation contracts and the political process to explain accounting choice. It is assumed that firms with debt and/or bonus plan are more likely to adopt accounting policies (strategies) that increase current period reported income. The reason for such choice is to avoid violation of debt contract constraints and to reduce costs of technical defaults (Watts and Zimmerman, 1990). Moreover, politically sensitive firms are more likely to select accounting policies (strategies) that reduce reported income to avoid high political costs.

The three most tested hypotheses related to contracting and political costs are the bonus plan hypothesis, the debt/equity hypothesis, and the political process hypothesis. Previous research finds results generally consistent with the bonus plan hypothesis, and the debt/equity hypothesis. The results of testing the political process hypothesis are mixed (Trombley, 1989). However, these hypotheses are tested only in the USA environment where managers making accounting choice decisions are fully aware of the economic consequences of their choice. This study tests the validity of these hypotheses in Saudi Arabia where the accounting profession is still at its early developing stages, and managers are expected to be less aware of the economic consequences of their choice.

Four hypotheses are developed and tested for this purpose:

H_1 Firms with high debt equity ratio are more likely to choose income increasing accounting policies (strategies).

H_2 Large firms are more likely to choose income decreasing accounting policies (strategies).

H_3 High capital intensity firms are more likely to choose income decreasing accounting policies (strategies).

H_4 Firms operating in industries having high concentration ratio are more likely to choose earning decreasing policies (strategies).

The first hypothesis is related to the debt equity hypothesis, while the other three hypotheses represent the political process. Results of testing these hypotheses are shown in Tables 4 and 5.

II. Hypotheses to Test the Effect of the Proposed Variables on the Accounting Choice

Previous studies testing the effects of contracting and political process on accounting choice revealed a low explanatory power due to major deficiencies in the current positive theory studies involving misspecification of model variables, and a possible omission of some important variables.

Based on the Saudi accounting environment stated in Section II, three proposed environmental variables are expected to affect accounting policies (strategies) choice. These variables are proxies for factors governing the accounting practices in the KSA. The first variable is related to mangers' attitude in selecting accounting policies (strategies). It is expected that managers may be generally conservative in their selection; therefore they continue to choose accounting policies that decrease reported income. On the other side, they may be aggressive and choose non conservative accounting policies (strategies) [Duke, 1980]. So, the proposed set of hypotheses can be stated as follows:

H_5 Firms with conservative attitude toward accounting policies are expected to continue to choose conservative accounting policies (strategies).

The second variable is related to the fact that firms in less developed accounting profession have less sophisticated management, who is more likely to choose the accounting policies commonly used in the industry. This can be attributed to: (1) Management inability to develop its own accounting policies, or (2) Prevailed belief that the

common use of certain accounting policy (strategy) indicates its appropriateness for the industry. The hypothesis that represents common practice is developed as follows:

H_6 Firms are more likely to adopt accounting policies (strategies) commonly used in the industry.

The third variable proposed in this study is the auditor effect. Trombley [1989] indicated that in the absence of accounting standards and lack of sophisticated management, firms may look to their auditors to recommend the appropriate accounting policy for them. Therefore, it is expected that management adopts accounting policies recommended by its auditor, because he has the experience and knowledge to recommend accounting policies most suitable for the specific firm. Thus the hypothesis representing this factor is developed as follows:

H_7 Firms are more likely to adopt accounting policies preferred by their auditors.

Information about auditors preference for accounting policies covered in this study is obtained through interviews with major auditing practitioners in the KSA.

Thus, this study investigates, for the first time, the validity of the current positive theory in an environment different from that of the USA, where it is originally developed. Moreover, it introduces some environmental factors which may enhance the explanatory power of the model used to explain the accounting policy (strategy) choice, and extends its applicability to various environments.

IV. DATA AND MULTIVARIATE TESTS OF THE POSITIVE THEORY: THE CASE OF THE KINGDOM OF SAUDI ARABIA

4/1 Data and Descriptive Statistics

The sample used in this study was taken from the published annual reports of the Saudi corporations covering the period 1996-1999 (before standards effective date). Corporations operating in the banking, insurance and utility industries were excluded because they

are regulated by special unified accounting systems, so management does not interfere in the choice of accounting policies. Out of the 41 remaining corporations, 13 corporations were excluded either because they did not publish their annual reports or because of the insufficiency of accounting policy disclosure in their annual reports.

Table 1 exhibits the number of corporations in the sample classified by Saudi economic sectors. The table shows that the sample represents 68.3% of the population.

TABLE 1

NUMBER OF CORPORATIONS IN THE SAMPLE SAUDI ECONOMIC SECTORS, 1996-1999

Economic Sector	No. of (*) Population Corporations	No. of Sample Corporations	% Sample to Population
(1) Agriculture Sector	7	6	85.7
(2) Industrial Sector:			
-Cement& Construction	10	8	80.0
- Oil & Gas Industries	7	2(**)	28.6
- Conversion Industries	8	6	75.0
(3) Services Sector	9	6	66.7
Total	71	28	68.3

(*)Chamber of Commerce and Industry, Saudi Corporations: Financial Data and Analytical Indicators 1996-1999 (Riyadh, Saudi Arabia: Research Department, CCI, December 2000).

(**) No published data are available for oil refineries.

Descriptive statistics for economic variables related to the sample firms are provided in table 2.

TABLE 2

DESCRIPTIVE STATISTICS FOR SAMPLE FIRMS, 1996-1999 (SAUDI ECONOMIC VARIABLES), n=28

Variable	Mean	Standard Deviation	Minimum	Maximum	Coefficient of variation
Total Assets (Million Saudi Riyals)*	1510.8	4499	29	24328.7	297.8
Debt/Assets (%) Capital Intensity	23.4	16.1	0	65.7	68.8
Ratio (%) concentration	43.5	26.5	0	89.3	60.9
Ratio (%)	60.8	23.1	30.3	90.4	38.0

*** One US Dollar = 3.75 Saudi Riyals.**

Definition of Variables:

- **Total Assets and debt ratio were averaged based on annual reports for the four periods (1996-1999).**
- **Capital Intensity was computed as a percentage of fixed assets to total assets over the study period.**
- **Concentration ratio was defined as the percentage of total industry sales made by the largest two firms in the industry over the study period.**

The study covers accounting choice from two different perspectives; it studies the factors affecting single policy choice in the KSA, and factors affecting-the choice of accounting strategies. Single policy choice includes policies for inventory valuation, accounting for research and development, and accounting policy for zakat expenditure. Those three policies were chosen based on: (1) a preliminary survey of actual major policy disclosure in annual reports of Saudi corporations; (2) previous studies that investigated the priorities of issuing Saudi standards to regulate major accounting practices. A preliminary survey conducted by the authors revealed the fact that there is no significant variation in accounting policy choice related to accounting for depreciation, foreign currency translation, and accounting for marketable securities. Moreover, previous Saudi studies showed that both the accounting profession and academicians gave top priority to the issuance of standards related to inventory, research and development, and zakat

accounting (special Saudi Islamic tax levied on income and properties).

Accounting strategy choice includes the choice of different combinations of the three above single policies in one portfolio. The choice is made based on the assumptions given by Zmijewski and Hagerman [1981]. These assumptions determine the relative effect of each of the three policies on earnings. Under the first assumption it is assumed that all three policies have the same effect on reported earnings. This assumption reduces the eight portfolios to four different effects on reported earnings as it is shown in Table 3 under the column labeled "Classification of Strategies, 4". Under the second assumption it is assumed that the effects of R & D and zakat policies on earnings represent half of the effect of the inventory valuation method. This assumption reduces the eight portfolios to five different effects on reported earnings as it is shown in Table 3 under the column labeled "Classification of Strategies, 5". Under the third assumption it is assumed that the effects of R & D and zakat policies on earnings are less than one half of the effect of the inventory policy. This assumption reduces the eight portfolios to six different effects on reported earnings as it is shown in Table 3 under the column labeled "Classification of Strategies, 6".

The study adopts the same assumptions used by Zmijewski and Hagerman [1981] for testing the validity of the positive theory as it is applied to accounting choice outside the USA. Moreover, the use of the same assumptions provides comparable results to the above study.

TABLE 3

ALTERNATIVE COMBINATIONS OF ACCOUNTING POLICIES AND INCOME STRATEGIES FOR THE SAUDI SAMPLE

Combination		Possible policy Alternatives			Sample		Classification of Strategies		
		Inventory	R&D	Zakat	No.	%	4	5	6
Most decreasing	1	0	0	0	4	14.3	1	1	1
	2	1	0	0	0	0	2	3	4
	3	0	1	0	13	46.4	2	2	2
	4	0	0	1	1	3.6	2	2	2
	5	1	1	0	7	25.0	3	4	5
	6	1	0	1	0	0	3	4	5

	7	0	1	1	2	7.1	3	3	3
Most increasing	8	1	1	1	1	3.6	4	5	6
					28	100.0			
Policy		0				1			
		Income Decreasing				Income Increasing			
Inventory	Lower of cost or Market			Cost					
R & D	Expensing			Capitalizing					
Zakat	Expensing			Income Distribution					

The classification of accounting policies into income decreasing or increasing policies according to their effect on income is shown at the bottom of Table 3. Inventory valuation using the lower of cost or market (LCM), expensing R & D expenditures, and expensing zakat are considered income decreasing policies. Inventory valuation using cost, capitalization R & D expenditures, and treatment of zakat as income distribution are considered income increasing policies.

4/2 Multivariate Tests

Alternative models were considered for testing the combined predictive power of the explanatory variables. These models are probit, logit, and regression. Regression is proven to be superior to probit and logit in research involving small samples (Noreen 1988). Noreen demonstrated that in order to get reliable results using probit and logit, sample size should be between 50-100 observations, which is not the case in this study. Accordingly, the study uses regression analysis to test the validity of the positive theory hypotheses to explain the accounting choice in the case of the KSA.

4/2/1 Single Policy Choice

Since the dependent variable in this paper is dichotomous (0-1), using OLS will face some special problems related to the nonnormality of the disturbances and heteroscedasticy of their variances. This will result in violating the basic OLS assumptions and producing inefficient estimators of the model parameters (Gujarati, 1978).

To overcome these problems, a two-stage weighted least square model is developed as follows:

Step 1: Perform the OLS regression to obtain $\hat{Y}_i$. Then obtain:

$$\hat{W}_i = \hat{Y}_i(1-\hat{Y}_i)$$

Step 2: The estimated $\hat{w}_i$ is used to transform the original data of both independent and dependent variables using the square root of $\hat{W}_i$ as a divisor for these variables. The procedure is completed through running the OLS on the transformed data (Goldberger, 1964 and Gujarati, 1978).

The results of using the proposed model with the economic variables as explanatory variables to explain accounting choices of single policies in the KSA. are shown in table 4.

Major results of the table are as follows:

1. **A very low explanatory power (R^2) for both regression models of inventory and zakat policies.**
2. **Capital intensity is the only significant explanatory variable for R & D policy choice. However, the coefficient of this variable in the model is associated with a sign opposite to the expected sign in the positive theory.**
3. **Rejecting H_1, H_2, H_3, H_4 (α = 5%) for inventory valuation policy choice.**
4. **Rejecting H_1, H_2, H_4, and accepting H_3 for R & D policy choice.**
5. **Rejecting H_1, H_2, H_3, and H_4 for zakat policy choice.**

TABLE 4

WEIGHTED LEAST SQUARES BETWEEN ECONOMIC EXPLANATORY VARIABLES AND ACCOUNTING CHOICES (SINGLE POLICY CHOICE), KINGDOM OF SAUDI ARABIA

Independent Variables	Expected Sign	Dependent Variable		
		Inventory	R & D	Zakat
Constant		-0.2664	0.8733	0.9463
		(-0.086)	(6.207)	(0.882)
X_1 Size	(-)	-.00003	0.00015	-0.00009
		(-0.430)	(1.901)*	(-0.595)
X_2 Debt Ratio	(+)	0.0051	-0.00095	-0.0015
		(0.516)	(-0.585)	(-0.237)
X_3 Capital Intensity	(-)	0.0023	0.0127	0.0003
		(0.212)	(11.896)****	(0.044)
X_4 Concentration Ration	(-)	0.0038	-0.00026	-0.0017
		(0.262)	-(0.249)	(-0.569)
R^2		0.025	0.9988	0.120
F		0.1458	3862.545****	0.6508

Numbers shown in parentheses are t-statistic.

*** Significant at .10 ** Significant at .05**

***** Significant at.01 **** Significant at .001**

Generally, the above results reflect the fact that known economic variables affecting the accounting choice in the positive theory literature are not present in the case of the KSA (except for R & D policy choice). In other words, there is a strong evidence that choice of single accounting policy in the KSA is inconsistent with both political process and debt/equity hypotheses. Moreover, lower explanatory power for the two policies, can be attributed to misspecification of model variables due to possible omitted variable(s) representing the Saudi accounting environment.

4/2/2 Accounting Strategy Choice

The procedure applied to transform dichotomous variable in the case of single policy is irrelevant for the case of accounting strategy choice, because the dependent variable in the latter case takes an integer value (1,2,.., or 6). Moreover, using OLS without transformation violates the basic assumptions of the least squares model. Accordingly, another transformed model is.used to test the validity of the positive theory regarding accounting strategy choices in the KSA. This transformation is performed through taking the

natural logarithm of the dependent variable, then running the OLS on the transformed data. Table 5 shows the results of this model.

TABLE 5

ORDINARY LEAST SQUARES(T) BETWEEN ECONOMIC EXPLANATORY VARIABLES AND ACCOUNTING CHOICES (STRATEGY CHOICE UNDER THREE ASSUMPTIONS), KINGDOM OF SAUDI ARABIA

Independent Variables	Expected Sign	Dependent Variable (Accounting Strategy)		
		Assumption 1	Assumption 2	Assumption 3
Constant		0.1113	0.0716	0.0389
		(0.209)	(0.102)	(0.046)
X_1 Size	(-)	-0.00012	-0.000019	-0.000025
		(-0.578)	(-0.703)	(-0.754)
X_2 Debt Ratio	(+)	-0.00021	0.0010	0.0019
		(-0.040)	(0.148)	(0.235)
X_3 Capital Intensity	(-)	0.0098	0.0104	0.011
		(1.985)*	(1.612)	(1.409)
X_4 Concentration Ration	(-)	0.0039	0.0051	0.006
		(0.687)	(0.681)	(0.670)
R^2		0.248	0.1667	0.1279
F		1.893	1.1502	0.8435

(T) on the transformed data using natural logarithm. Numbers shown in parentheses are t-statistic.

*** Significant at.10 ** Significant at.05**

***** Significant at.01 **** Significant at.001**

Table results lead to rejecting H_1, H_2, H_3, and H_4 under the three assumptions, indicating that non of the economic variables is significant in explaining the variations in accounting strategy choice. Furthermore, table results emphasize the previous findings regarding the strong evidence that known economic variables affecting accounting choice in the USA are generally inconsistent with the case of the KSA. In other words, these findings support the argument presented by the paper that other factors may affect the accounting choice in developing countries.

V. DATA AND MULTIVARIATE TESTS OF THE PROPOSED MODEL

5/1 Environmental Data and Descriptive Statistics

The above analysis suggests that other variables may be capable of explaining variations in accounting choice either for single policies or for accounting strategies. Table 6 shows definitions and descriptive statistics about three suggested environmental variables for the Saudi sample firms.

TABLE 6

DESCRIPTIVE STATISTICS FOR SAMPLE FIRMS, 1996-1999 (SAUDI NON-ECONOMIC VARIABLES), n = 28

Variable (Environmental)	Mean	Standard Deviation	Minimum	Maximum	Coefficient of variation
Degree of Conservatism (%)	44.6	19.7	0	100.0	44.2
Common Practice (%)	86.5	21.7	0	100.0	25.1
Auditor preference:					
- Inventory	0.64	0.89	0	1	039.1
- R & D	0.86	0.36	0	1	41.9
- Zakat	0.29	0.46	0	1	158.6
- Strategies	1.80	0.77	0	3	42.8

Definition of Variables:

- **Degree of conservatism is computed as the percentage of the number of conservative accounting police(s) to total number of accounting policies as reported by each firm in its annual reports (1986-1989).**
- **Common Practice is computed as the percentage of the number of accounting polices adopted by the firm in agreement with the industry common practice.**
- **Auditor Preference is an indicator variable for the preference of firm's auditor. It is computed as follows:**
  - *** It takes value 0 or 1 for single policy choice:-**
    - **1: Indicates that auditor preference agrees with firm's preference.**
    - **0: Otherwise.**
  - *** It takes value 0,1,2,3, or 4 for accounting strategy choice:-**

0: Indicates that the auditor preference does not agree with any of the firm's policy choices.

1: Indicates that the auditor preference agrees with firm's choice for one policy.

2: Indicates that the auditor preference agrees with firm's choice for two polices.

3: Indicates that the auditor preference agrees with firm's choice for all three polices.

5/2 Multivariate Tests of the Proposed Model for a Single Policy Choice

Environmental variables are added to the original economic model of the positive theory for the purpose of testing the improvement in the explanatory power of variations in accounting choice. The same regression model to test the effect of the economic variables is adopted In this test to ensure the comparability of the results. Table 7 shows the results of the weighted OLS model between all possible explanatory variables (economic and environmental) and single policy choice in the KSA.

TABLE 7

WEIGHTED LEAST SQUARES BETWEEN ALL EXPLANATORY VARIABLES (ECONOMIC AND ENVIRONMENTAL) AND ACCOUNTING CHOICES; SINGLE POLICY CHOICE, KINGDOM OF SAUDI ARABIA

Independent Variables	Expected Sign	Dependent Variable		
		Inventory	R & D	Zakat
Constant		1.5644	1.051	-0.7932
		(1.896)*	(5.714)****	(-1.272)
X_1 Size	(-)	0.00044	0.00017	-0.000038
		(1.026)	(1.648)	(-0.389)
X_2 Debt Ratio	(+)	-0.0098	-0.0032	-0.0069
		(-1.009)	(-1.278)	(-1.337)
X_3 Capital Intensity	(-)	0.01048	0.01537	0.00519
		(1.361)	(6.561)****	(1.756)
X_4 Concentration Ratio	(-)	0.0099	-0.00093	0.00143
		(1.598)	(-0.732)	(0.679)
X_5 Conservatism Degree	(-)	-0.0280	-0.0023	-0.00839
		(-3.245)***	(-1.30)	(-2.011)*
X_6 Common Practice	(+)	0.0016	0.00041	0.0036
		(0.264)	(0.172)	(1.537)
X_7 Auditor preference	(+)	-0.6189	-0.038	0.8228

	(-1.203)	(-0.256)	(3.48)***
R^2	0.8246	0.99905	0.64
F	4.7017**	2251.60***	2.809*

Numbers shown in parentheses are t-statistic.

*** Significant at .10 ** Significant at .05**

***** Significant at.01 **** Significant at .001**

Major results of the table are as follows:

1. **Improving the explanatory power of the model significantly. It increased from 0.025 to 0.82 for inventory policy, from 0.12 to 0.64 for zakat policy, and from 0.998 to 0.999 for R & D policy. Thus the proposed environmental variables have greater effect on accounting choices than the economic variables in the case of the KSA.**
2. **With regard to inventory policy choice, conservatism degree (H_5) has proven to be the only statistically significant variable affecting policy choice, and it also has the same expected coefficient sign. This indicates that the Saudi corporations generally prefer a conservative accounting policy choice for inventory valuation.**
3. **R & D accounting policy choice in the KSA is determined in accordance with the capital intensity of these corporations (H_3). Table results prove that firms with high capital intensity choose accounting polices that increase earnings. However, this is inconsistent with the expected relationship according to the positive theory hypothesis. Logically, this result is expected in the Saudi environment due to the lack of governmental intervention in economic activities, and the absence of both accounting standards that regulate these policies and lobbying costs. Ultimately, these factors lead firms to adopt income increasing policies to attract potential investors.**
4. **Zakat accounting choice in the KSA is mainly affected by conservatism degree, where the majority of Saudi firms consider zakat as a period expense.**

5. Accepting only H_5 for inventory valuation ($\alpha = 5\%$).

6. Accepting only H_3 for R & D accounting policy ($\alpha = 5\%$).

7. Accepting only H_7 for zakat policy ($\alpha = 5\%$).

Generally, the above results provide a strong evidence against the traditional positive theory hypotheses of both contractual and political cost effects (except for R & D). Moreover, they emphasize the effect of environmental factors on accounting choice. In such developing countries, the accounting environment has certain characteristics: the accounting profession is still in its early development stage, management awareness of the economic consequences of accounting choice is a minimum or absent, regulation is in its very early phase, in addition to the absence of regulated capital market. Such factors lead firms to adopt highly conservative accounting polices.

5/3 Multivariate Tests of the Proposed Model for Accounting Strategy Choice

OLS was performed on the transformed data related to both economic and environmental variables, as it was explained in testing the economic variable effects on accounting strategy choice, under the three earning effect assumptions, to ensure the comparability of the results. Table 8 shows the results of the OLS between all explanatory variables and accounting strategy choice under the three assumptions.

Table results indicate that the most significant variable affecting accounting strategy choice, under the three assumptions, is the degree of conservatism. This leads to accepting H5 and rejecting all other hypotheses under the three assumptions. These results emphasize the importance of the environmental factors in explaining accounting choice in developing countries. Moreover, these finding is consistent with the results of single policy choice. In addition to the effect of the conservatism degree, capital intensity ratio is proven to be a statistically significant factor in choosing accounting strategy under the first assumption leading to accepting H3 under the first assumption. However, the coefficient of this economic variable is opposite to the expected sign under the traditional positive theory hypothesis.

Furthermore, incorporating the environmental variables into the model resulted in significantly increasing the explanatory variable of the model from 0.25 to 0.78 under the first assumption, from 0.17 to 0.76 under the second assumption, and from 0.13 to 0.74 under the third assumption.

Generally, these findings provide a strong evidence for:

(1) rejecting the traditional political and contractual cost hypotheses under the current positive theory model for accounting strategy choice in the KSA; and

(2) accepting the hypothesis developed by the paper regarding the effect of the degree of conservatism on the accounting strategy choice in the KSA. The same argument for justifying the results obtained for single policy choice can be extended for reasoning the accounting strategy choice in the KSA.

TABLE 8

ORDINARY LEAST SQUARES BETWEEN ALL EXPLANATORY VARIABLES (ECONOMIC AND ENVIRONMENTAL) AND ACCOUNTING STRATEGY CHOICES UNDER THREE ASSUMPTIONS, KINGDOM OF SAUDI ARABIA

Independent Variables	Expected Sign	Dependent Variable (Accounting Strategy)		
		Assumption 1	Assumption 2	Assumption 3
Constant		1.2315	1.7049	2.072
		(3.053)***	(3.234)***	(3.20)***
X_1 Size	(-)	0.000005	0.000005	0.0000047
		(0.448)	(0.312)	(0.236)
X_2 Debt Ratio	(+)	-0.00449	-0.0034	-0.0026
		(-1.303)	(-0.762)	(-0.478)
X_3 Capital Intensity	(-)	0.00671	0.00617	0.00578
		(2.213)**	(1.558)	(1.188)
X_4 Concentration Ratio	(-)	0.00124	0.00138	0.00152
		(0.368)	(0.315)	(0.231)
X_5 Conservatism Degree	(-)	-0.0141	-0.01853	-0.022
		(-6.14)****	(-6.16)****	(-5.96)****
X_6 Common Practice	(+)	-0.00125	-0.0026	-0.0037
		(-0.598)	(-0.964)	(-1.101)
X_7 Auditor preference	(+)	-0.0084	-0.0556	-0.0923
		(-0.141)	(-0.710)	(-0.959)
R^2		0.777	0.7566	0.735
F		9.965****	8.883***	7.927****

Numbers shown in parentheses are t-statistic.

*** Significant at.10 ** Significant at.05**

***** Significant at.01 **** Significant at.001**

VI. CONCLUSION

Since the hypotheses of the positive accounting choice research have not been tested outside the USA, this paper provides an empirical investigation on the robustness of the positive theory to explain accounting choice in one of the major developing countries.

Test findings of the current positive hypotheses in the Saudi environment indicate that economic factors have a minor effect on both accounting policy and strategy choices. These findings can be justified by these facts: both the Saudi accounting profession and standard setting are in their early development stages, the absence of

regulated capital market, the lack of management awareness of economic consequences of accounting choice, and the minimum role of the political process in the Saudi accounting choice.

The hypotheses that accounting choice is related to environmental factors, mainly conservatism and auditor preference, are strongly supported by the analysis of both single policy and accounting strategy choices. These results reflect the characteristics of the accounting environment in the KSA, and generally in the developing countries.

Study findings provide a strong evidence against the validity of the current positive theory hypotheses in the environment of the KSA as a developing country. Moreover, these findings enhance the explanatory power of the positive accounting model through incorporating some important omitted environmental variables.

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