Quality of Internal Controls in Trinidad and Tobago Credit Unions

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This paper provides an assessment of the quality of internal control (IC) among Trinidad and Tobago (T&T) Credit Unions (CUs) and examines factors that are associated with IC quality. Most of the information used in the paper was collected by conducting structured interviews with the chief operations officer of 60 randomly selected CUs. The data were analysed using a mixture of descriptive statistics, and multiple regression. The results indicate that the overall quality of IC in T&T CUs is barely "satisfactory" and is directly related to CU size, the nature of their charter bond and the educational attainment of CU managers.

Introduction

This paper assesses the quality of internal control (IC) among Trinidad and Tobago (T&T) Credit Unions (CUs) and examines factors that are associated with IC quality. It is timely, given the fact that the IC systems of CUs have recently been called into question following a number of high profile cases involving financial irregularities and mismanagement at CUs. For instance, in 2001 the then Minister of Finance, Gerald Yetming highlighted excessive loan delinquency and outdated business practices as factors that limit the ability of T&T CUs to serve members effectively. He suggested that these factors had contributed to the liquidation of seven CUs between 1998 and 2001 with substantial financial losses to members (Rampersad, 2001). Also, the executive of the Credit Union League of Trinidad and Tobago recently sold its administrative building and entered into long-term loan agreements with member CUs to finance its operating activities, many of which were discretionary, despite members' opposition and refusal to pay dues. These actions threaten the survival of the organisation (West, 2007).

These incidents, and the generally outdated regulatory provisions governing T&T CUs, have contributed to the perception that their IC systems are inadequate to their needs and may be inhibiting their competitiveness (GORTT, 2004).

Unfortunately, this perceived weakness of IC in T&T CUs has not been supported by systematic research evidence. Instead, commentators have relied primarily on anecdotal evidence to support their assertions. A comprehensive review of the academic literature in the English-speaking Caribbean was unable to find a single systematic study of IC in CUs.

The paucity of research regarding IC in CUs is troubling when one considers the importance of these institutions to the economic well being of a large segment of the most vulnerable members of the population of T&T. This study will help to fill this gap in the literature by making two potentially significant contributions. Firstly, the results of this study enhance our understanding of the overall quality of IC in T&T CUs. Secondly, the study highlights the fact that the quality of T&T CUs IC varies with their size, the educational attainment of their managers and the nature of their common bond charter. This information is crucial for policy maker and CU administrators wishing to improve CU governance.

The remainder of the paper is organised as follows. Section II describes the CU environment of T&T and the nature of an IC system. Section III describes the major factors that have been proposed as determinants of IC quality in CUs. Section IV describes the research methodology. Section V presents the results of the data analyses, and section VI discusses the implications and limitations of the findings.

Credit Union Environment and Nature of Internal Controls

CUs are financial consumer co-operatives that provide depository, credit and related financial services to members on terms that are generally more favourable than those available from other financial institutions. They are purpose-driven and must usually generate operating surpluses to survive and prosper. CUs cannot do business with the general public due to the nature of their charter which limits them to serving a membership that has some common bond. The common bond is usually based on occupation, association, or residence.

In T&T there are 131 active CUs with an asset base of approximately TT$4,067m (TT$6.33 = US$1) and a membership of more than 400,000, 1/3 of the national population (Co-operative Development Division, 2005).

These CUs are currently regulated by the Co-operative Division under the T&T Co-operative Societies Act 1971 (TTCSA, 1971). However, plans are at an advanced stage to strengthen the CU legislation and regulations and to transfer supervision to the central bank of T&T which has more and better resources (Bowrin 2007).

CU members elect individuals to the Board of Directors (BOD) to manage the CU's affairs. They expect, and directors and executive managers (directors) undertake to, conduct the affairs of the CU in a manner that would maximise the objectives sought by CU members. However, the problems of adverse selection and moral hazard make it likely that some directors (and executive management) will be tempted to assign higher priority to objectives other than those of CU members.

These challenges are present at two levels. Firstly, when potential CU directors offer themselves for service, they typically have better information above their competence and motives for seeking office than the average CU member. This information asymmetry increases the likelihood that CU members may err in their choice of directors and thereby expose themselves to opportunistic or otherwise inappropriate behaviour. Secondly, because CU directors do not bear the full consequences their actions, directors may make decisions based on criteria that are inconsistent with the best interest of CU members. CU directors generally have access to more and better information about the status and performance of the CU than the average CU member. This creates an imbalance of power in the accountability relationship between directors and members.

Further as CU members themselves are partially insulated from capital loss by deposit insurance (up to TT$ 50K) they may not be fully motivated to effectively monitor directors. As a result, there are opportunities for CU directors to act in self-serving and otherwise inappropriate ways placing the capital and potential returns of members in jeopardy. CU directors may even feel entitled to behave in a self-serving manner as they are generally not compensated for their service to the CU.

Therefore, CUs implement a variety of corporate governance mechanisms including, appointing external auditors, retaining veto power over important strategic decisions, and implementing comprehensives IC systems, to minimise the negative consequences of these potential agency problems.

According to COSO (1992) IC consists of all the measures implemented by an organisation to mitigate exposure to risks and to provide management and other stakeholders with reasonable assurance that (i) assets are safeguarded and financial records and statements are reliable, (ii) operations are efficient and effective, and (iii) laws, regulations and policies are complied with.

Ideally, the IC process begins with the CU's BOD setting objectives relevant to the CU's mission, vision and present circumstances. Next, directors identify, assess and prioritise all relevant risks that may inhibit their realisation, and determine how the risks should be managed through a range of control activities. They also implement mechanisms to capture, process and communicate information needed to effectively and efficiently discharge and monitor CU business. All this is done in the context of the CU's control environment, which defines the tone at the top of the organisation and related attributes.

Factors That May Influence Internal Controls in CUs

Firm Size and IC Quality

We expect the quality of IC among T&T CUs to be positively associated with their size based on the finding of prior organisational studies (Ashton, et al, 1989; Tan and Tower, 1999). This relationship is probably due to the greater economic and political visibility of larger CUs relative to their smaller counterparts (Watts and Zimmerman, 1986; Vermeer et al 2006), which may lead to heightened scrutiny for larger CUs (Jensen and Meckling, 1976).

If larger CUs are aware of their greater visibility and scrutiny, which increase the likelihood that control deviations will be detected, then they might be more likely, than their smaller counterparts, to have properly designed and effectively functioning IC systems (Watts and Zimmerman, 1986).

Further, larger CUs have more resources to devote to ICs than their smaller counters, and they may benefit for scale economies in control-related expenditure. Additionally, larger CUs are more likely than their smaller counterparts to be audited by international auditing firms that have been associated with better audit quality (DeFond and Francis, 2005). International

auditors might be more likely to detect, and insist on the correction of, IC weaknesses, than their local counterparts. Based on the above arguments we offer the following predictions regarding the association between IC quality and CU size and External Auditor:

Hypothesis IA: The quality of IC observed for larger CUs is likely to be better than that of their smaller counterparts.

Hypothesis 1B: The quality of IC observed for CUs audited by international auditing firms is likely to be better than that of their counterparts audited by local auditing firms.

CU Type and IC Quality

Community-based CUs are expected to exhibit better quality IC systems than their organisationally-based counterparts. On average, community-based CUs are likely to have access to a larger pool of better educated, more financially literate and more sophisticated individuals as members. Assuming these members make themselves available for election to the BOD, such CUs should also have better educated and more financially literate board members, except in the case of a few organisational CUs that may be dominated by professionals. These individuals are more likely to recognise the critical role played by IC in the realisation of CU mission, goals and objectives and therefore devote more and better resources to IC. They may also better recognise the positive signalling effects that such a procative governance disposition can have for the CU's reputation with regulators, members and other stakeholders (Technical Assistance for Community Service [TACS], 2004). Based on the above arguments we offer the following predictions about the association between CU type and IC quality:

Hypothesis 2A: Community-based CUs are likely to have better quality IC systems than their organisationally-based counterparts.

Hypothesis 2B: CUs whose managers have completed tertiary level education are likely to have better quality IC systems than their counterparts whose managers have not completed tertiary level education.

Research Methodology

Sample

A stratified random sample of 60 CUs was selected from the sampling frame of 131 active T&T CUs. CUs were arranged from smallest to largest based on the value of their total assets. The list was scrutinised for any clustering of CU sizes that would facilitate the identification of natural categories. Based on this procedure CUs with total assets of $16 million or less (79), between $16 million and $75 million (45) and over $75m (7) were classified as small, medium and large, respectively.

All 7 large CUs were included in the sample because of their relative under-representation in the sampling frame. The remaining 53 elements of the sample were prorated between the small and medium-sized CUs based on their respective proportion in the sampling frame. As a result, 32 small and 21 medium-sized CUs were selected.

Questionnaire[1]

The data was collected using structured interviews with the general managers of participating CUs. The questionnaire was an adapted version of one used by Etherington and Gordon (1985). Questions were selected to cover the perceived quality of IC in CUs, the five core components of a comprehensive IC system identified by COSO (1992) and key demographic information about participating CUs. The questionnaire was pre-tested on four CUs to ensure its suitability for the T&T context and to ensure that the questions were clearly understood by respondents.

Variables

- Dependent: Internal control quality was operationalised using two measures, perceived internal audit quality (**PICQ**) and perceived supervisory committee quality (**PSCQ**). Both measures employed 5 – point Likert-type scales.
- Independent: Credit Union Size (**CU Size**) was operationalised at three levels, small, medium and large based on the total assets of CUs; **External Auditor** type was operationalised at two levels, local and

international; the nature of CU Charter (**CU Type**) was operationalised at two levels, organisational and community; and **Educational Attainment** was operationalised at two levels, less that tertiary level education and tertiary level education.

Data Analysis and Results

Demographic Profile
Table 1 presents the demographic profile of the sample which comprises equal proportions of organisationally-based and community-based CUs. Also, the sample comprised 32 (53%) male and 28 (47%) female managers.

Panel B of Table 1 presents descriptive statistics for the two dependent variables. For both variables the mean IC quality scores are higher for larger CUs, community chartered CUs, CUs audited by intennational auditing firms and CUs whose managers have completed tertiary level education than for smaller CUs,

organisationally chartederd CUs, CUs audited by local auditing firms and CUs whose managers have not completed tertiary level education, respectively. When this is considered together with the fact that both CU Size and Educational Attainment of CU managers were highly and positively correlated with both dependent variables (see Panel C of Table 2 and 3), it provides preliminary support for the hypothesised relationships between CU Size and IC quality, and between Educational Attainment and IC quality. CU Size was also moderately, and positively correlated with CU Type, ($\underline{r}$ (60) = .342, $\underline{p}$ = .004), External Auditor ($\underline{r}$ (60) = .324, $\underline{p}$= .006) and Educational Attainment of CU manager ($\underline{r}$(60) = .231, $\underline{p}$= .038). No other correlations were statistically significant.

Diagnostics
OLS multiple regression analysis was use to examine the hypothesised relationships between each of the two dependent variables

Panel A		Male	Female	Total
Gender		**32**	**28**	**60**
		Organisational	Community	**Total**
Credit Union Type		**32**	**28**	**60**

Panel B		Internal Control PICQ*		Quality PSCQ**	
CU Size	Nr	Mean	SD	Mean	SD
Small	32	1.97	.822	2.19	.931
Medium	21	3.24	.625	2.74	.784
Large	7	4.57	.535	4.00	.817
Total	**60**	**2.72**	**1.15**	**2.58**	**1.03**
Educational Attainment	**N**	**Mean**	**SD**	**Mean**	**SD**
Less Than Tertiary	**10**	**2.20**	**1.03**	**2.15**	**.933**
Tertiary	**50**	**2.80**	**1.16**	**2.94**	**.989**
CU Type					
Organisational	**32**	**2.61**	**1.12**	**2.48**	**.92**
Community	**28**	**2.83**	**1.20**	**2.69**	**1.37**
External Auditor					
Local	**40**	**2.57**	**1.01**	**2.55**	**.959**
International	**20**	**3.00**	**1.38**	**2.65**	**1.28**
***PICQ** = Perceived Internal Control Quality					
****PSCQ =** Perceived Supervisory Committee Quality					

Table 1: Demographic Profile

PICQ and PSCQ and the independent variables. Based on the arguments presented above the following models were specified:

$$PICQ = a + b_1 (CU\ Size) + b_2 (External\ Auditor) + b_3 (CU\ Type) + b_4 (Educational\ Attainment) + \textbf{\textit{e}}$$

$$PSCQ = a + c_1 (CU\ Size) + c_2 (External\ Auditor) + c_3 (CU\ Type) + c_4 (Educational\ Attainment) + \textbf{\textit{e}}$$

Where, PICQ and PSCQ refer to respondents perception of the overall quality of their CU's IC system and its supervisory committee, respectively; CU Size refers to the size of the credit union; External Auditor refers to whether the CU is audited by a local or internal firm; CU Type refers to whether the CU's charter is organisationally- or community-based; Educational Attainment refers to whether or not the CU's manager has completed tertiary level education, and **e** in a random error term.

All pertinent assumptions of regression analysis (linearity, normality, homoscedasticity, and independence of errors) were assessed for the individual variable and the regression variates. Examination of scatterplots, normal probability plots and regression residuals revealed no major violations of these assumptions. These findings suggest that the variables are suitable for multiple regression analysis (Hair et al 1995). Additionally, the VIF factors reported for the variables in both regression models indicate that the data is free of multicollinearity. See Tables 2 and 3 below.

Hypothesis Testing – Perceived IC Quality (PICQ)

As shown in Table 2, the linear combination of independent variables was significantly related to PICQ (f (4, 55) = 29.597, p = .000). The sample adjusted R^2 was .66, indicating that approximately 66% of the variance in IC quality in the sample can be accounted for by the linear combination of independent variables.

In Panel C of Table 2 we present the regression coefficients for the individual predictor variables. An examination of this Panel reveals that CU Size (b = 1.436, t (55) = 9.609, p = .000) and CU Type (b = .524, t (55) = 2.741, p = .008) are significant predictors of the perceived quality of CUs internal control system. Hypotheses 1A and 2A are supported.[2] The multiple regression results suggest that larger

CUs and those with community charters tend to have better IC systems than smaller CUs and those with organisational charters.

Additionally, a review of the standardised regression coefficients for the independent variables indicates that CU Size (b = .868) contributed more to the explanation of variance in PICQ than did CU Type (b = 0.229). The perceived quality of CU internal control is 3.79 times as responsive to changes in CU Size as it is to changes in CU Type.

Hypothesis Testing – Perceived Supervisory Committee Quality (PSCQ)

As shown in Table 3, the linear combination of independent variables was significantly related to the PSCQ (f (4, 55) = 8.588, p = .000). The sample adjusted R^2 was .34, indicating that approximately 34% of the variance in SC quality in the sample can be accounted for by the linear combination of independent variables.

In Panel C of Table 3 we present the regression coefficients for the individual predictor variables. An examination of this Panel reveals that CU Size (b = .84, t (55) = 4.508, p = .000) and Educational Attainment (b =.541, t (55) = 2.417, p =.019) are the only significant predictors of the perceived quality of SC. Hypotheses 1A and 2B are supported. The multiple regression results suggest that larger CUs and those whose manager have completed tertiary level education tend to have better SC than smaller CUs and those whose manager have not completed tertiary level education.

Also, a review of the standardised regression coefficients for the independent variables indicate that CU Size (b = .566) contributed more to the explanation of PSCQ than did Educational Attainment (b = .264). The perceived quality of CU supervisory committee was 2.14 times more responsive to changes CU Size than it was to changes in Educational Attainment.

Supplementary Analyses

Given the importance of CU Size as a predictor of the perceived IC quality, supplementary analyses were performed to assess its influence on some of the major IC components. The results are presented in Tables 4 and 5.

Control Environment

Table 4 summarises the responses to the five control environment questions. Taken as a

Table 2: Results of Multiple Regression Analysis – Perceived Internal Control Quality

Panel A: Model Summary

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.826	.683	.660	.6715

Predictors: (Constant), Type of CU, Size of Credit Union
Dependent Variable: Perceived Quality of Credit Union Internal Control System

Panel B: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	53.383	4	13.346	29.597	.000
	Residual	24.801	55	451		
	Total	78.183	59			

Predictors: (Constant), Size of Credit Union, External Auditor, Type of CU, Educational Attainment
Dependent Variable: Perceived Quality of Credit Union Internal Control System

Panel C: Coefficients

Model	Predictors	Unstandardised Coefficients		Standardised Coefficients	t	Sig
		B	Std Error	Beta		
1	(Constant)	6.923	0.549		12.610	.000
	Size of credit union	1.436	0.149	0.868	9.609	.000
	External auditor	0.323	0.202	0.133	1.598	.116
	Type of credit union	0.524	0.191	0.229	2.741	.008
	Educational attainment	0.342	0.180	0.149	1.903	.062

Dependent Variable: Perceived Quality of Credit Union Internal Control System

Panel D: Correlations and Collinearity Statistics

Model	Predictors	Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	Size of credit union	.781**	0.792**	0.730**	.706	1.416
	External auditor	.176	-.211	-.121	.829	1.206
	Type of credit union	.094	0.347*	0.208*	.823	1.214
	Educational attainment	.333	.248	.144	.940	1.064

* Significant at .05 level
** Significant at .01 level

Dependent Variable: Perceived Quality of Credit Union Internal Control System

Table 3: Summary of Regression Analysis – Perceived Supervisory Committee Quality

Panel A: Model Summary

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.620	.384	.340	.8309

Predictors: (Constant), Size of credit union, External Auditor, Type of CU, Educational Attainment
Dependent Variable: Perceived Supervisory Committee Quality

Panel B: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	24.061	4	6.015	8.588	.000
	Residual	38.523	55	.700		
	Total	62.583	59			

Predictors: (Constant), Size of credit union, External Auditor, Type of CU, Educational Attainment
Dependent Variable: Perceived Supervisory Committee Quality

Panel C: Coefficients

Model	Predictors	Unstandardised Coefficients		Standardised Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	4.888	.653		7.488	.000
	Size of CU	.837	.175	.566	4.772	.000
	External auditor	.332	.252	.153	1.319	.193
	Type of CU	.266	.238	.130	1.116	.269
	Educational attainment	.541	.224	.264	2.417	.019

Dependent Variable: Perceived Supervisory Committee Quality

Panel D: Correlations and Collinearity Statistics

Model	Predictors	Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	Size of CU	.534*	.519*	.477*	.706	1.416
	External auditor	.046	.301	-.140	.829	1.206
	Type of CU	-.101	-.149	-.118	.823	1.214
	Educational attainment	.385*	.175*	.256*	.940	1.064

* Significant at .01 level

Dependent Variable: Perceived Supervisory Committee Quality

whole, the responses suggest that the control environment in several T&T CUs is less than satisfactory, especially in the following areas: independence of supervisory committee members, clarity with which the responsibilities and authority for key positions are specified, and whether they have formal training and development policies.

Risk Assessment

While this element of the IC system was strong in most CUs there is still room for improvement especially among small CUs in the area of business continuity planning.

Table 5 summarises the responses to the risk assessment questions. As shown in Panel A of the table, 63% (38) of CUs indicated that they have plans in place for business continuity in the event of a disaster or major disruption. CU Size was found to significantly influence the likelihood of having such plans in place (Pearson $\div 2$ (2, N=60) = 9.28, P=.01, Phi= .393). Follow-up pairwise comparisons revealed that medium-sized and large CUs were 1.62 times and 2.13 times more likely than their small counterparts to have business continuity plans in place, respectively. See Panel B of Table 5. Among CUs with business continuity plans, 84% indicated that they update the plans at appropriate intervals while 16% stated that they seldom update them. The frequency of updating the business continuity plans was not affected by CU size (Pearson $\div 2$ (2, N=38) = 1.904, P=.386). See Panel C of Table 5.

Discussion, Conclusions and Limitations

One of the primary findings of this study is that CU size plays a critical role in the perceived quality of CUs overall IC system and that of their supervisory committees. This is consistent with the assertion that larger CUs have access to more and better quality resources. It is also probably a reflection of the greater visibility of larger CUs and their greater awareness of the importance of IC to the success as seen in the greater propensity of larger CUs to acknowledge the existence of IC in policy documents.

Another important finding was the effect of the nature of CU common bond charter on the quality of their overall IC system. As hypothesised, community-based CUs we perceived as having better IC systems than their organisationally-based counterparts. This is probably a function of the larger, more diverse pool of members that are available to community-based CUs. This interpretation is consistent with the finding that the perceived quality of CUs' supervisory committee was better for CUs whose managers had completed tertiary level education than for those whose managers had not. These findings are encouraging in the light of the observed tendency by CUs to expand their charter bonds to a wider group of members.

There are several positive features of IC in T&T CUs including, their control activities, their democratic structure and the quality of

Table 4: Summary of Control Environment Findings [N = 60]

	Almost Completely	Partially
Acknowledgement of IC system in policy documents	51%	49%
	Yes	**No**
Responsibility and authority of different positions are clearly stated in CU policy documents	48%	52%
	Yes	**No**
Existence of policy regarding employee training and development	50%	50%
	Yes	**No**
Are any members of the supervisory member dependent for pay, promotion or job security on those whose activities they supervise?	88%	12%
	Yes	**No**
Are monitoring policies and procedures excessive	18%	82%

Table 5: Summary of Risk Assessment

Panel A: Business Continuity Plans in Place by CU Size						
				CU Size		
Does CU have business continuity plans in place?				Large	Medium	Small	**Total**
			Yes	7	16	15	**38**
			No	0	5	17	**22**
			Total	**7**	**21**	**32**	60
Pearson χ2 (2, <u>n</u>=60) = 9.28, p=.01, Phi= .393						

Panel B: Pairwise Comparisons of Group Percentages

Comparison	Pearson χ^2	Actual P-Value	Critical Prob	Sign	Phi	N
Small Vs. Medium	4.49	0.03	0.0500	Yes	.291	53
Small Vs. Large	6.59	0.01	0.0250	Yes	.411	39
Medium Vs. Large	2.03	0.15	0.0167	No	.269	28

Panel C: Frequency of updating business continuity plans by CU Size

				CU Size			
How frequently does your CU update its business continuity plans?				Large	Medium	Small	**Total**
			Seldom	2	3	1	**6**
			At appropriate intervals	5	13	14	**32**
			Total	**7**	**16**	**15**	38
Pearson χ2 (2, <u>n</u>=38) = 1.904, p=.386							

Panel D: Consistency of Internal Control Throughout CU by CU Size

				CU Size			
Is the internal control system consistently strong throughout the CU?				Large	Medium	Small	**Total**
			Yes	5	15	24	**43**
			No	3	6	8	**17**
			Total	**7**	**21**	**32**	60
Pearson χ2 (2, <u>n</u>=60) = 0.903, p=.637							

Panel E: Specific feature of CU that poses IC Challenge by CU Size

				CU Size			
Is there a specific feature of your CU that poses a challenge for IC?				Large	Medium	Small	**Total**
			Yes	1	13	19	**33**
			No	6	8	13	**27**

information provided to officers and staff. Conversely, the mean quality scores for both the overall IC system and the supervisory committee were relatively low at less than 2.75 on a 5-point scale. This is consistent with the anecdotal evidence characterising the IC of CUs as weak. It suggests that there is considerable room for improvement in IC quality especially among small and medium-sized CUs. Hopefully, the fact that this finding is based on the perception of the managers of the CUs means that they are aware of the shortcoming; such awareness being the first step in any corrective action.

This conclusion is supported by the results of the supplementary analyses which suggest that several elements of the IC systems of CUs, especially small and medium-sized ones, are in need of improvement. Chief among these areas are the control environment as it relates to the (1) specification of the responsibilities and authority of key positions, (2) independence of supervisory committee members, and (3) implementation of policies for training and development. This is a very important issue given the difficulties faced by CUs in attracting and retaining high quality staff and their reliance on volunteers.

Implications

The findings of this study are potentially valuable to CU regulators, and individual CUs in T&T. For regulators they provide an assessment of the overall quality of IC in T&T CUs and may assist them in upgrading CU regulations, devising compliance monitoring regimes and systems improvement initiatives with / for CUs. The findings may also provide the impetus for individual CUs to strengthen their IC systems.

Limitations

The findings of this study are subjected to a number of limitations. Firstly, the study focused on only one Caribbean country and only one group of internal stakeholders, management. As such the findings may not represent the situation in regional CUs as a whole or of other internal or external CU stakeholders – eg, the BOD and general staff. Secondly, the study uses perceptions of CU managers to evaluate IC quality rather than conducting an independent assessment using more objectives measures. Accordingly, the reliability and representativeness of the findings may be questioned. Thirdly, IC quality was only measured at one point in time. This is not an ideal situation given the very dynamic nature of the business environment faced by CUs and their IC systems. Notwithstanding these limitations, the findings advance our understanding of the IC in this very important segment of T&T financial system. At the very least, they are likely to stimulate interest in the area and may lead to further research. Any such research should employ more comprehensive and objective IC quality measures and include a larger number of stakeholder groups.

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References

Ashton, R, Graul, P and Newton, J (1989) Audit delay and the timeliness of corporate reporting. *Contemporary Accounting Research*, 5(2): pp657- 673.

Bowrin, A (2007) International financial reporting uniformity: The case of Trinidad & Tobago. *Advances in International Accounting*, 20: 27-54.

Committee of Sponsoring Organisations of Treadway Commission (COSO) (1992) *Internal Control-Integrated Framework,* 4 Vols, COSO, New York, NY.

Co-operative Development Division (2005) *Annual Report.* Co-operative Development Division. Ministry of Labour and Co-operatives, Trinidad and Tobago.

DeFond, M and Francis, J R (2005) Audit research after Sarbanes-Oxley. *Auditing: A Journal of Practice & Theory*, 25 (Supplement): 5–30.

Etherington, L D and Gordon, I M (1985) *Internal control in Canadian Corporations – A Management Perspective.* Canada. CICA and Society of Management Accountants of Canada.

GORTT (2004) A white paper: Reform of the financial system of Trinidad & Tobago. Government Printery. Trinidad.

Hair, J F, Anderson, R E, Tatham, R L and Black, W C (1995) *Multivariate Data Analysis* 4th Ed Prentice Hall: NJ.

Jensen, M C & Meckling, W H (1976) Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4): pp305-360.

Rampersad, C (2001) Credit unions accused of being delinquent. *Trinidad Express Newspaper*, Thursday August 30: p7.

Tan, S and Tower, G (1997) Too much regulation, or insufficient attention? *Australian Accountant*, Vol 67, pp56–59.

Technical Assistance for Community Service [TACS] (2004). Non-profit Question and Answer. Available at: http://www.tacs.org/ga/qa.asp?tpID=23.

Trinidad and Tobago Co-operative Societies Act (CSA) (1971).

Vermeer, T E, Raghunandan, K, and Forgione, D A (2006) The composition of non-profit audit committees. Accounting Horizons 20(1): 75-90.

Watts, R and Zimmerman, J (1986) *Positive Accounting Theory*. Prentice Hall, Englewood Cliffs, NJ.

West, S (2007) *Personal Communication* – President of UWI Credit Union Cooperative Society Ltd.

Notes

1 The questionnaire is available from the corresponding author on request anthony.bowrin@sta.uwi.edu
2 Neither the nature nor magnitude of the relationships changed when the non-significant variable were eliminated from the model.