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THE UNBANKED HISPANIC COMMUNITY: IMPLICATIONS FOR THE BANKING SECTOR

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ABSTRACT

Recent discussions on the unbanked Hispanic community refer to the untapped deposit potential that this community has to offer to the banking system, but little is known about the magnitude of deposit funds that the non-banked group could offer. We fill the gap in this literature by pinpointing the expenditure, remittance, and saving channels through which funds of the unbanked and the low-moderate-income (LMI) community in general are left out of the banking system. With data from our survey of LMI Hispanics in Orange County, CA, we estimate that (i) about 25% of the county's LMI Hispanic families are unbanked, (ii) the annual remittance outflow from this community is about \$ 226 million, and (iii) the annual "under-the-mattress" savings of the unbanked LMI Hispanic community is about \$78 million. The idle funds that result from the "under-the-mattress" savings channel and to some extent from the expenditure channel of the unbanked could potentially be used more productively by banks toward creating more deposits. The remittances are a leakage from the region and the majority of remittances are sent through the informal financial sector rather than through banks. Banks would benefit by entering the lucrative remittance market.

JEL classification: G20, G21, R10

Key Words: Unbanked, Hispanic, Remittances, Low-Moderate-Income (LMI), Money Multiplier

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STOCK MARKET REACTIONS TO FIRST-TIME EMPLOYEE STOCK OWNERSHIP PLAN ADOPTIONS

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ABSTRACT

In the early 1970s, the United States Congress passed legislation to alleviate the economic distress of slow productivity growth and eliminate the existing dense concentration of corporate stock ownership. With the passage of the Employee Retirement Income Security Act of 1974, a plan was created that allows employees to become owners of their firms through Employee Stock Ownership Plans (ESOPs). Since then, the number of firms adopting ESOPs has grown rapidly. Pugh, Jahera, and Oswald (2005) note that ESOPs have been popular in the United States since the late 1980s. Possible reasons for this influx of ESOPs include income tax shields, incentive alignment, hostile takeover deterrence, capital acquisition and pension plan replacement. Previous studies that address the effects to stockholders of firms that establish ESOPs have led researchers to contradictory conclusions. In this paper, I study the shareholder wealth effects associated with the announcement of first-time ESOP adoptions.

OPERATIONAL RISK DISCLOSURES IN FINANCIAL INSTITUTIONS

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ABSTRACT

In this paper we examine the current disclosure standards of financial institutions with regards to their operational risk measurement and management systems. Our sample covers 57 financial institutions across five countries. We discuss our findings in light of the Basel II recommendations on risk disclosure. We find that there is currently high variability in the quality and quantity of disclosure on operational risk. We conclude that while it is likely that the Basel II requirements will lead financial institutions to disclose greater information on operational risk, the lack of consistency in the way financial institutions report this information places doubt over its usefulness to external parties.

INTRODUCTION

In their annual reports banking institutions provide stakeholders with relevant financial, operational and strategic information. As a major task of banks is to measure and manage the risks that arise from their business activities and as stakeholders are generally concerned with the levels of risks that a financial institution has taken to achieve a particular outcome, the reporting and discussion of these risks are an integral part in banks' annual reports. In recent times, however, there have been demands for more transparency and increased quality in risk reporting. One reason is the increasing number of banks that have suffered large losses or have collapsed due to excessive risk-taking, poor disclosure practices or both. Other reasons are the integration of international finance markets and the ongoing innovation and increasing complexity in financial products.

The Basel Committee on Banking Supervision (BCBS) of the Bank for International Settlements attempts to address these issues in its 2004 publication entitled "The International Convergence of Capital Measurement and Standards", which is commonly known as Basel II. The Basel framework is based on a three-pillar approach. Pillar 1 discusses a variety of approaches for the calculation of capital for market, credit and operational risk exposures. The obligation to measure and manage operational risk is relatively new and financial institutions are still in the process of developing adequate methodologies in this area. The second pillar deals with the supervisory review process and the third with market discipline. Under Pillar 3 financial institutions are required to provide detailed information on their capital structure and adequacy, as well as information on the size and assessment of risk exposures. The aim is to provide stakeholders and market participant with an opportunity to better being able to assess the riskiness of the institution.

In this paper we examine the quantity and quality of operational risk measurement and management information that is currently provided in financial institutions' annual reports and assess the results in light of the disclosure requirements for operational risks as put forward by the BCBS. As financial institutions are still in the early stages of developing adequate internal models for operational risk, we expect to find a high variation in the density and usefulness of disclosures. The data in this study is gathered from the 2004 annual reports of fifty-seven financial institutions.

The institutions included in our sample operate in different jurisdictions world-wide and differ in their size and core activities.

The remainder of this paper is structured as follows. We first summarise the operational risk disclosure requirements as outlined in Pillar 3. We then discuss our results and examine if the Basel disclosure requirements are likely to provide stakeholders and market participants with a *real* opportunity to better comprehend the types and sizes of risks taken by financial institutions.

OPERATIONAL RISK DISCLOSURE IN BASEL II

The final version of the Basel capital framework, which is commonly known as Basel II, was published in June 2004. An updated version was published in November 2005. One of the aspects discussed in the first pillar is the calculation of an operational risk capital charge. The Basel Committee on Banking Supervision (BCBS) proposes three increasingly sophisticated methodologies, namely the Basic Indicator Approach (BIA), the Standardised Approach, and the Advanced Measurement Approach (AMA). Financial institutions that seek to use a higher approach than the BIA need to fulfil a set of qualifying criteria. For the BIA and the Standardised Approach the capital charge mainly depends on the amount of gross income generated by the financial institution, while in case of the AMA financial institutions are able to rely on internally developed models to calculate operational risk capital. This means that this approach provides financial institutions with an opportunity to tailor operational risk measurement systems to their specific institutional needs. A resulting problem is the difficulty for external parties to fully comprehend the workings of the applied models, the underlying assumptions or the potential limitations. Basel II's Pillar 3 recommendations on market discipline seek to address these deficiencies.

Under Pillar 3, financial institutions need to comply with a set of general and specific disclosure requirements. The aim is to increase transparency and thereby to improve market discipline. There are two major parts: the first deals with general considerations for appropriate disclosure, including questions around the nature, frequency, materiality and means of disclosure, and the second part outlines specific disclosure requirements regarding financial institutions' capital position and their exposures to credit, market, interest rate and operational risks. For the purposes of this paper we limit our discussion to those disclosure requirements that relate to operational risk.

At this stage the disclosure requirements for operational risk are merely of qualitative nature. In their annual reports, financial institutions need to provide a general description of their risk management objectives and policies, such as information on strategies and processes, the structure and organisation of the risk management function, the scope and nature of risk reporting and/or measurement system as well as information on the use of risk mitigants and/or hedging techniques (BCBS, 2005, p. 190). Further, institutions need to state the measurement approach for which they qualify. Besides this, only institutions that seek to use the AMA are required to disclose further information. This additional disclosure requirement is, however, limited to a description of the institution's measurement methodology, including a discussion of any relevant internal or external factors, as well as details on the use of insurance if used for operational risk mitigation (BCBS, 2005, p. 199).

AN ASSESSMENT OF CURRENT OPERATIONAL RISK REPORTING IN BANKS

In our study we examine fifty-seven financial institutions that operate in different jurisdictions and differ with respect to their sizes and core activities. We gather information from the 2004 annual reports of these institutions. We adopt a content-analysis approach, as information in risk management reports is predominantly of qualitative nature. The focus of our study is the disclosure of information on operational risk measurement and management practices and

methodologies in light of approaching implementation of the Basel II framework. Table 1 summarises our findings.

Table 1		
Operational risk: summary of common items disclosed in 2004 annual reports		
Column 1	Column 2	Column 3
	No. of banks	Percentage of total sample (%)
Basel II: opted approach	32	56.14
<i>Advanced Measurement Approach</i>	24	42.11
<i>Standardised Approach</i>	8	14.03
Operational risk methodologies	37	64.91
<i>Measurement methodologies</i>	6	10.53
<i>Management methodologies</i>	17	29.82
<i>Both</i>	14	24.56
Self assessment techniques	28	49.12
Key risk indicators/Early warning signs	26	45.61
Collection and use of internal data	33	57.89
Collection and use of external data	15	26.32
Risk transfer and risk mitigation	24	42.11

One of the most important requirements with respect to operational risk disclosures is the approach for which the institution qualifies. In our sample, thirty-two institutions state for which approach they will opt. Out of these, twenty-four banks aim at obtaining regulatory approval for the AMA, while the remaining eight institutions opt, at least initially, for the Standardised Approaches. Interestingly, none of the banks has opted for the partial use of the approaches. Further, under Pillar 3, AMA-institutions have to provide a description of their methodology, which includes a discussion of external and internal factors considered in the model. While most institutions provide a brief description of the models it uses, the discussion of relevant factors seems to be missing.

Thirty-seven institutions provide information on their operational risk measurement systems, management methodologies or both, and most of them also provide comprehensive information on the structure of the overall risk management function and how it relates to the measurement and management of operational risks. Statements about the institution's operational risk management objectives generally focus on loss mitigation or prevention, and the strengthening of risk awareness and culture. Information on the models used to manage and measure operational risks and on how to allocate capital against it is rather vague. Most institutions, however, state the use of scenario analysis. This is not surprising as the use of scenario analysis is a qualifying criterion for the use of the AMA (BCBS, 2005, p. 150). Other frequently mentioned models and tools include value-at-risk calculations, scorecard approaches, loss distribution approaches and stress testing of results. Crucial supporting information regarding the structure, nature or underlying assumptions of these models is however missing. If existent, the description of the applied models is vague. Some institutions even state that they manage operational risk 'using best-practice approaches' – a definition or description of the latter, however, is missing. Further, in most of the cases there is no explanation on how the different tools interrelate, how they are used on a firm-wide level, and how they interact with and compare to tools used for other risk types.

As proposed by the BCBS (2003b, pp. 8-9), financial institutions have started to develop a set of tools for the identification and assessment of operational risks. We find that approximately half of the institutions have implemented regular self-assessments for business units. The most commonly stated purpose is quality assurance. In most cases self-assessments are a comprehensive questionnaire that deals with the risk exposures and the quality of processes in business units. There

is little information about the contents and quality of the questionnaires. There is also little information on how the results of the questionnaires are translated into operational risk management strategies. While the BCBS recommends self-assessment techniques, little weight can be given to any results unless the quality of the questionnaires is examined, and response rates as well as the quality of responses are verified. One problem is potential bias in the results, because effectively employees are assessing their own performance. Thus it is crucial to provide individuals and business units with the right incentives to increase response rates and to ensure high-quality, i.e. honest answers. A similar proportion of institutions has implemented or is in the process of developing key risk indicators (KRIs) and/or an “early warning signs system” (EWS). Again, little information is provided on the type of KRIs that are being developed and their effectiveness in managing operational risk. Some institutions state that they use KRIs to analyse trends, fail however to provide further information on the types of trends that have been identified as well as any interpretation of results. It is possible that the majority of institutions is still in the process of identifying objective and forward-looking risk indicators that are suitable for their institution. Some of the examined institutions are involved in an industry initiative, ‘KRI Library and Service’, that seeks to exchange information on the development and usefulness of KRIs.

In their annual reports, thirty-three banks mention the collection and use of internal operational loss data. The data is predominantly used to identify the frequency and severity of particular loss events. In many cases, the institution also records losses that are deemed significantly large, i.e. that exceed an institutionally-set threshold. While some institutions provide the specific dollar amount that distinguishes between significant and non-significant losses, no institution provides a justification for the amount set as threshold. As in most cases financial institutions have only started to collect data at the beginning of this decade, the usefulness of this data is limited. In addition, fifteen banks use external loss data, mostly provided by the “Operational Riskdata eXchange Association” (ORX). Institutions state that this data is predominantly used to model extreme events, i.e. events that occur infrequently but can have cataclysmic effects for an affected institution. Institutions that use both internal and external operational risk data usually combine the two data sets to determine the institution’s loss distribution. This is in accordance with the qualifying criteria for the AMA, which state that those institutions are required to use both internal and external data to model unexpected losses (BCBS 2005, pp. 149-150). Despite this requirement some institutions remain sceptical. In their view the usefulness is limited as operational risk losses are mainly company-specific. The same scepticism was found by the BCBS (BCBS, 2003a, p. 22).

Under Pillar 3 financial institutions are also required to provide information about risk mitigation policies and the processes that are implemented to monitor the effectiveness of these techniques (BCBS, 2005, p. 190). Only twenty-four institutions mention the use of operational risk mitigants or transfer techniques, with insurance being the most commonly quoted tool. Only a few institutions, however, provide any further information on the structure or effectiveness of their risk mitigants. While at this stage it might be difficult to assess the effectiveness of risk mitigants, it should be no problem for institutions to provide information regarding the structure of mitigants. This is especially the case for AMA-institutions, for which one qualifying criterion is the description of insurance policies as risk transfer tool.

WILL BASEL II SOLVE THE PROBLEM?

Given that operational risk has only recently entered centre stage, it comes of no surprise that there is a high variability in the quantity and quality of disclosures. Despite this, most institutions in our sample, at least partially, fulfil the disclosure requirements outlined by the BCBS. The major reasons are that the operational risk disclosure requirements are qualitative in nature and vaguely formulated. In their risk reports, most financial institutions adopt the terminology used in various Basel publications. While it thus appears as if financial institutions are on the right track with their

operational risk systems, there is a lack in supporting statements that explain the used terminology. The solution might be a more stringently prescriptive approach. However, due to the early stages of operational risk regulation and ongoing innovations in this area this does not seem to be a feasible solution. The consequence is inconsistencies in the quality and type of information provided in annual reports, as discovered in our study. This variability, however, is likely to gradually decline over time. One reason is the push for the provision of more transparent risk-related information, and the push for improvements in the governance structure of financial institutions. Thus organisations which do not provide as much or as detailed information as their competitors might be 'punished' by the market, for instance through the loss of investments or higher costs of capital. Another reason are the current developments in the industry. Most internationally active institutions directly or indirectly participate in initiatives like the 'ORX' or the 'KRI Library'. Obvious benefits are the development of best-practices, the exchange of data and ideas, and an opportunity for individual institutions to learn more about their exposures and how to deal with them.

CONCLUSION

Pillar 3 of the Basel Capital Accord promotes transparency and high-quality disclosures in an attempt to enhance market discipline in the financial sector. Our examination of operational risk disclosures in the annual reports of fifty-seven financial institutions in 2004 finds that there is high variability in the structure and quality of disclosures. This lack of consistency in reporting renders comparison and assessment of risk across financial institutions difficult. While Basel II does not represent a formal accounting standard, we assert that the market discipline that Basel II seeks to engender will be unlikely to produce the intended outcomes without some form of consistency in the reporting of risk.

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CAPITAL STANDARDS AND RISK ALIGNMENT IN THE BANKING FIRM

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ABSTRACT

This paper examines the question of how to efficiently align the investment decisions of managers in a bank with the risk/return goals of the centre of the bank. It argues that the contemporary approach aimed at achieving such alignment, which involves the top-down allocation of some proportion of the total bank's capital against positions taken by managers, and then remunerating managers based on the return generated on this capital, serves as a poor mechanism for achieving alignment of incentives. This arises when bank capital is measured in terms of a predetermined solvency standard, which has at its core a risk-neutral attitude to risk. If bank stakeholders are risk-averse, and desire that this risk attitude be captured in bank investment decisions, then risk measures used internally for investment selection and performance measurement must diverge from those used to measure total bank capital.

INTRODUCTION

This paper examines the troubling question of how to efficiently align the investment decisions of managers in a bank with the risk/return goals of the centre of the bank. It argues that the contemporary approach aimed at achieving such alignment, which involves the top-down allocation of some proportion of the total bank's capital against positions taken by managers, and then remunerating managers based on the return generated on this capital, serves as a poor mechanism for achieving alignment of incentives. Indeed, it is argued that this approach leads to outcomes that are against the best interests of bank stakeholders whom the centre is deemed to represent.

This problem arises when bank capital is measured in terms of a predetermined solvency standard, which has at its core a risk-neutral attitude to risk. If bank stakeholders are risk-averse, and desire that this risk attitude be captured in bank investment decisions, then risk measures used internally for investment selection and performance measurement must diverge from those used to measure total bank capital.

PROPOSITIONS

The paper sets forth two main propositions. First, if incentive-compatibility between the actions of managers and the risk/return preferences of the centre is required, then the risk measure used internally for assessing the risk-adjusted performance of investments made by managers needs to diverge from that used for calculating total bank capital, where the latter is based on achieving a predetermined solvency standard. Second, if managers have private information on expected risks in their investments, and are expected to act in their own self-interest, then incentive-compatibility between the centre and managers cannot be achieved without incorporating some form of a truth-revealing mechanism in the capital allocation and remuneration processes of the bank.

The basis of the first proposition is that the risk preference function of the centre of the bank - which embodies the diverse interests of bank owners, depositors, debt holders and regulators - does not calibrate with the attitude to risk implicit in the measurement of total bank capital requirements, where capital is linked to a predetermined solvency standard. The risk preference function of the centre of the bank is one that is likely to demonstrate non-satiety, risk aversion and a preference for positive skewness in the distribution of bank returns. This is at odds with the attitude to risk implicit in a predetermined solvency standard, which is essentially one of risk neutrality. If banks adopt a policy of spreading their actual capital against risky positions taken by managers – a full capital allocation policy – then this imposes an internal risk standard that leads managers to make portfolio decisions that are suboptimal for the bank. Goal alignment necessitates that the risk measure used for internal purposes diverge from that used for measuring the total capital requirements of the bank.

The basis of the second proposition is that managers carry a disincentive to truthfully reveal their expectations on the distribution of returns in positions when this information is used by the centre to determine the ex-ante capital that will be allocated against these positions, which in turn drives the ex-post risk-adjusted performance measure upon which bonuses to managers are based. If the centre allocates capital against positions in accordance with historical return volatility, this ignores the specialised information that managers are likely to possess on the current and expected volatility in their positions. If the centre allocates too much capital relative to risk expectations of managers, then managers may be incentivised to take on (and misrepresent) additional risks in order to meet hurdle rate aspirations. If the centre allocates too little capital relative to the risk expectations of managers, then managers are unlikely to reveal this information because a low capital charge will potentially lead to higher risk-adjusted returns and make hurdle rate aspirations easier to achieve. In either case, managers acting in their own self interest may lead to the bank being undercapitalised with respect to the true risk in its books. If banks decentralise their activities to allow managers to gain specialised knowledge on local risks and opportunities, but managers face incentives to misrepresent this information, then the performance measurement process must incorporate a truth-revealing mechanism in order that this specialised knowledge can be appropriately utilised in decisions regarding the optimal allocation of capital and the measurement and management of bank-wide risk.

ALIGNMENT OF ECONOMIC AND REGULATORY CAPITAL

Over recent years, capital adequacy has become the focal point of the prudential regulation of banking firms. Capital is viewed by bank regulators as a key defence against financial system instability and a major source of protection for bank depositors. The requirement that banks hold a minimum level of capital in concert with the risk in their assets and off-balance sheet activities means that capital has also served as a regulator of bank asset growth.

From the perspective of the banking firm, there are two types of capital that must be measured and managed: 'economic capital' and regulatory capital.' The Basel Committee of the Bank for International Settlements defines economic capital as the capital that a bank holds and allocates internally as a result of its own assessment of risk, while regulatory capital is determined by supervisors on the basis of the Basel Accord. Economic capital is based on the notion that future gains and losses on a portfolio of credit exposures, over a specified time horizon, can be described by its probability distribution function. This function forms the basis upon which a bank that owns the portfolio can assign capital that will reduce the bank's probability of failure to a desired confidence level, within a desired time horizon. Economic capital thus defines risk at a common point (confidence level) in the distribution, where the confidence level represents the target solvency standard (probability) of the bank. In defining risk in probabilistic terms, economic capital represents a common currency for risk that allows exposures related to credit risk, market risk and operational risk to be directly compared across the bank.

The solvency standard adopted by a bank forms the link between its internal assessment of risk and the capital structure of its balance sheet. The economic capital of the bank is attributed to the difference between the mean of its loss distribution – expected losses (EL) – and the designated confidence level. In this way economic capital acts to protect the bank against unexpected losses, being downside variations in the expected loss rate. In 2004 the Basel Committee of the Bank for International Settlements released a revised framework for bank capital measurement and standards, which has become known as Basel II. The revised framework was conceived largely as a response to problems with the original Basel Accord of 1988, and in particular, recognition that banks had become increasingly able to arbitrage regulatory capital requirements and exploit divergences between risks measured under the Accord and the true economic risk in their books.

Under Basel II, banks are permitted a choice between two broad methodologies for calculating their capital requirements for credit risk. One approach requires banks to measure credit risk in a standardised manner, supported by external credit assessments. The alternative approach, which is subject to the explicit approval of the supervisor of the bank in the country of domicile, allows banks to use their own internal estimates of various risk components to determine the capital requirement for a given credit exposure. This approach, known as the ‘Internal Ratings-Based Approach’ (IRB), is based on measures of unexpected losses and expected losses, using risk-weight functions to produce capital requirements to cover for unexpected losses. The IRB approach is a point on the continuum between purely regulatory measures of credit risk and an approach that builds more fully internal credit risk models developed by banks. However, while the revised framework stops short of allowing the results of such credit risk models to be used for regulatory capital purposes, the risk weights in the IRB framework are closely calibrated to those used by ‘sophisticated’ banks in determining their own economic capital requirements. In this regard, for a given target solvency probability, the risk weights in the IRB approach are associated with quantifying the volatility of credit losses over a one-year measurement horizon.

Two important observations can be drawn from the Basel II framework. First, the IRB approach seeks to make bank regulatory capital requirements for credit risk approximate economic capital requirements. Second, regulatory capital requirements have evolved to become directly linked to the concept of a target solvency probability for a bank. The second observation follows from the first, given economic capital is measured to a specified confidence level based on a predetermined solvency standard. This is reinforced by the Basel Committee, who report that the most important precedent for indexing capital requirements to measures of risk – and thus to an economic capital concept – was the Market Risk Amendment to the Accord of 1988, which embodies a ‘Value-at-Risk’ (VaR) methodology to relate capital to a target level of confidence. The calibration of risk weights under the IRB approach for credit risk builds upon the same framework, but with modifications to reflect the characteristics of credit risk. This means that unexpected losses, and hence the economic capital held by a bank, is essentially based on a VaR concept of risk.

IMPLICATIONS

Having determined the capital requirements for the bank in the sense of maintaining capital sufficient to meet a desired solvency standard, the centre of a bank is charged with the task of apportioning this capital across businesses within the bank in line with the expected risks in each of their various activities. This process effectively serves two functions: an ex-ante resource allocation function and an ex-post performance measurement function. In terms of resource allocation, capital is charged against disparate activities in order to determine the expected risk-adjusted returns from these activities, enabling the centre to rank competing uses of capital and direct the available capital to its most productive uses. In this role, the capital allocation mechanism also serves as a signalling device to managers, informing them of the risk implications of each

investment decision they are entrusted to make and the impact of these decisions on the total capital base of the bank.

In terms of the performance measurement function, the risk-adjusted performance of an investment or activity can be assessed by the centre by comparing the ex-post profits or gains against the ex-ante capital allocation. This resulting risk-adjusted performance measure (RAPM) can be compared to a predetermined internal hurdle rate on economic capital to assess the overall gain to the bank from the activity in question. Bonuses paid to managers may be linked to the spread between the RAPM and the hurdle rate, based on the capital invested. If profits or gains turn out to be greater than expected or actual losses lower than expected, then the RAPM should exceed the hurdle rate, and managers duly compensated in line with the compensation payment function of the bank.

The combination of capital allocation and risk-adjusted performance measurement form a vehicle by which managers are incentivised to make investment decisions that are congruent with the risk and return objectives of the centre of the bank. The centre, which acts as an agent for bank stakeholders and a principal to decentralised managers, can use its position to allocate capital to those activities that are expected to generate the highest risk-adjusted returns – mindful of bank-wide portfolio considerations. Managers, in turn, can make pricing decisions that incorporate the capital being absorbed and the hurdle rate required on capital. Positions carrying greater risk should receive a higher capital charge, which, in theory, should provide an efficient pricing signal to managers. For example, if two credit portfolios have the same face value but one is allocated a higher capital charge than another due to greater credit risk, then managers will have to set a higher interest rate on the riskier portfolio in order to achieve the hurdle rate on capital.

This mechanism described above should work well if the risk measure inherent in the determination of the bank's economic capital accurately reflects the risk preferences of bank stakeholders. If it does not, the mechanism may lead to inefficient outcomes. It is proposed herein that the process of allocating capital and subsequently rewarding managers based on returns generated on this capital, *where the measure of capital is based on a target solvency standard*, does not lead managers to make decisions that are optimal for bank stakeholders. Indeed, it is argued that internal measures of risk based on external bank capital requirements have the potential to lead managers to make decisions that may, perversely, increase the probability of financial distress for the bank. This arises because the risk attitude implicit in a target solvency standard is one of risk-neutrality – losses beyond the target threshold are not incorporated in the risk measure, and large losses with low probability are treated equally as small losses with large probability. If bank stakeholders - being creditors, owners and regulators themselves – have risk preferences that do not conform to a risk-neutral attitude to losses, there will be a disjuncture between the risk attitude implicit in the capital allocation mechanism and the risk preferences of the bank stakeholders. This 'risk incongruence' may lead to inefficient investment decisions within bank firms, in the sense that managers are guided by capital allocation signals that are not aligned with the risk preferences of bank stakeholders.

CONCLUSION

If incentive-compatibility is to be achieved between the investment decisions of managers and the risk preferences of the centre of the bank, then subject to the risk preference function of the centre, risk measures used within the bank for resource allocation and performance measurement may need to differ from the measure used to calculate bank capital. This suggests that the 'assignment' of risk against positions within a bank may necessarily be *unrelated* to the total capital of the bank. This proposition goes against conventional thinking, which suggests that the total capital held by a bank should be fully allocated across all businesses and activities, and is based on recognition that measuring risk in terms of a solvency standard - which is advocated by the Basel

Committee and central to the concept of economic capital - may be considerably misaligned with the actual risk in bank positions.

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INTERNATIONAL BANKING AND LARGE COMMUNITY BANKS: A PRELIMINARY LOOK

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ABSTRACT

Banking has had a rich and illustrious history. Much of its development can be directly related to the banks' ability to provide trade financing, credit, and foreign exchange services, activities specifically designed to overcome many of the impediments to conducting trade and investment transactions that cross political and economic borders.

This paper looks at the trends and current state of the U.S. banking industry, specifically large community banks, with regards to providing international banking services. Despite the reputed benefits by generating fee and interest income, and from more fully developing customer relationships, the trend has been decidedly negative, as more and more institutions appear to be abandoning international finance during a time of increasing globalization in business.

Using FDIC call report data covering the past 15 years, we document how fewer institutions (large community banks) offer international services. We focus on determining operating and financing characteristics associated with banks involved with international banking services. The results of the study will shed some insights on the apparent inconsistencies in which institutions operating in the most dynamic financial markets in the world are avoiding activities that would be expected to be beneficial to both themselves and their customers.

INTRODUCTION

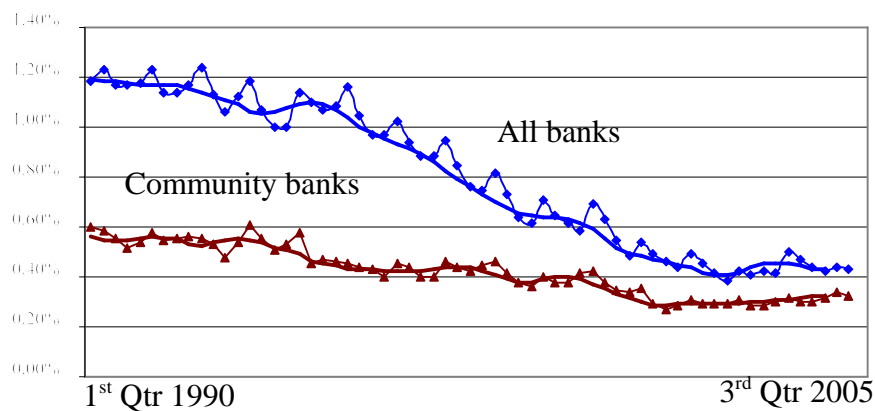
Banking has had a rich and illustrious history. From Mesopotamia in the third millennium B.C., to Greece, Rome, and to the money changers described in the Bible, elements of banking have long been a part of human development. Much of the development is related to the banks' ability to provide trade financing, credit, and foreign exchange services that help overcome impediments to conducting trade and investment transactions that cross borders.

This paper provides an introductory look at the trends and current state of the U.S. banking industry, specifically large community banks, in providing banking products that service international commerce. Despite the reputed benefits to a bank's bottom line (directly from generating fee and interest income, and indirectly from more fully developing customer relationships), the trend has been decidedly negative, as more and more institutions appear to be abandoning international financing during a time period of increasing globalization in business.

DATA SOURCES AND SAMPLE SELECTION

International banking is defined in this study as the provision of any sort of international activity (lending, foreign exchange, and most notably, letters of credit) that can be documented by data provided to the Federal Deposit Insurance Corporation (FDIC) in the banks' quarterly call reports. All data used are collected from these call reports as downloaded from the website of the Federal Reserve Bank of Chicago. Quarterly rather than annual data is used due to the short-term nature of most international financing transactions. There is also a great deal of seasonality in these data that can be seen in the following graph that summarizes the outstanding amount of letters of credit as a percentage of total assets.

(1990 - 2005) With Annual Trend Line



The specific sample of banks examined is often identified as large community and regional banks and are typically defined as banks having total assets between \$100 million and \$10 billion (Gilbert and Sierra, 2003; Ennis, 2004). Smaller banks are excluded because they are typically too small or too localized to have significant demands placed on them to provide international services, or do not have the resources to devote to such endeavors. Larger banks are excluded because they are often involved with other aspects of international banking (e.g., derivatives) more related to trading or hedging functions rather than meeting customer demands.

Reviewing the call report data over the past four years (2002 – 2005), we find that approximately one percent of banks in the database had asset sizes greater than \$10 billion and approximately forty-nine percent had asset sizes less than \$100 million. This results in us having around fifty percent of all banks providing call reports being defined as large community banks.

To allow for the comparability of results across time and eliminate problems associated with the steadily growing size of banks affecting the definition of large community bank, we arbitrarily choose to exclude the upper one percent and the lower forty-nine percent of banks for each period studied. For example, during the third quarter of 2005, there were a total of 7,985 banks available for the study, but 3,913 banks (49 percent) were eliminated from the bottom and 80 banks (1 percent) were eliminated from the top, leaving a sample size of 3,993 banks.

METHODOLOGY AND VARIABLE SPECIFICATION

International bank activity is calculated as the sum total of bank letters of credit, international commercial loan, and foreign currency positions. A dummy variable was used to denote whether or not a particular bank offered *any* particular international services.

To capture the impact of firm size, we use the natural log (LNTOTAST) of a bank's total assets. Size is examined due to the tendency for larger banks, even within our sample group, to be more likely involved with providing international services than smaller institutions.

To capture the impact of capital, we include equity capital as a percentage of total assets (EQRAT) and, for periods since 1996, the bank's risk-adjusted capital rate. Capital is included to control for a bank's ability to engage in international activities, much of it off balance sheet, as allowed by regulatory agencies. Institutions with greater amounts of capital would be expected to be more likely to engage in typically riskier international activities.

Profitability is captured by net interest margin (NIMEARN), measured as net interest income (total interest income minus total interest expense) divided by total earning assets. Lower

profitability may be positively related to international banking as less-profitable banks look towards such activities to generate additional profits. Return on assets (ROA), net income divided by total assets, and return on equity (ROE), net income divided by total equity, are also included to look at the overall bank profitability.

Short-term investing and financing risks are looked at in terms of rate sensitive assets (RSA) and liabilities (RSL), defined as assets or liabilities maturing within one year or carrying variable interest rates, and the nominal difference between the two referred to as interest rate gap (GAP). All three variables were standardized by total assets. Because international activities may potentially impact the bank's overall rate-sensitivity by creating additional rate-sensitive assets, we examine their relationship with banks engaged in international activities.

We also examine a bank's deposit structure by looking at its reliance on interest-bearing deposit liabilities (INTDEP) and non-interest bearing deposit liabilities (NOINTDEP) and the relationship between the two (INTDEPCT). Reliance on relatively more-expensive and perhaps less stable interest-bearing deposits could preclude a bank from engaging in international activities that may further tighten its overall liquidity or harm its profitability.

Lastly, we examine a bank's existing lending position (i.e., loans (LOANS) as a percentage of total assets. Banks more focused on lending domestically are assumed to be more likely to engage in international credits. However, banks with credit problems, measured by allowance for loan losses as a percentage of total loans (ALLPCT), would be less likely to engage in international activities whose implicit risks could compound the bank's problems.

Parametric and nonparametric tests were conducted to look for significant differences between those banks providing international banking services and those that do not. In addition, logistic regressions are used to simultaneously examine those factors most related to banks providing international services. The model is adapted from one used by Carter and Sinkey (1998) in their examination of derivative use by banks.

EMPIRICAL RESULTS

The U.S. banking community has become less involved in international banking activities over time. In 1990, 27 percent of all banks and 33 percent of the community banks provided some type of international banking services. By 2005, this number has dropped to 16 and 18 percent, respectively. Furthermore, the extent of that involvement has been dropping as well, as was documented in the earlier graph showing letters of credit as a percentage of total assets.

To get a sense of the direction and status of international banking, the data are presented at three distinct points in time: the third quarter of 2005 (the most recent period available), and the third quarters of 1998 and 1991, respectively. These points were chosen to give a broad picture of the data across time and avoid problems with the apparent seasonality of the data.

As neither the assumption of homogeneity of variances nor the normality of the data is consistent across the variables used in this study (as discerned by Brown & Forsythe and Kolmogorov-Smirnov tests), parametric (paired sample t-tests) and nonparametric (Wilcoxon) procedures were run. The following tables summarize the mean values of each variable between providers and non-providers of international services as the data was reported for the third quarter of 2005. Satterthwaite t-values and Wilcoxon Z-scores document any significant differences between the two groups.

The table shows that size matters, even among large community banks, as larger banks are more likely involved with international banking. Bank profitability (return on assets) appears to be a factor as banks lacking in profits are drawn to the potential revenues and profits from international banking. On the other hand, data from earlier time periods shows that profitability, as measured by net interest margin, and international banking were *positively* related. This difference may reflect

the significant change in banking fortunes as the early 1990s was a far less profitable time period for banks as compared with more recent periods.

Table 1 Differences in Means between Providers and Non-providers (Third Quarter: 2005)

	Providers	Non-providers	t-value	Pr > t	Z-score	Pr > Z
LNTOTAST	13.1250	12.5650	11.87	<.0001	10.55	<.0001
ROA	0.0116	0.0122	-1.91	0.0562	-0.50	0.6150
ROE	0.1223	0.1237	-0.48	0.6334	0.44	0.6624
NIMEARN	0.0298	0.0309	-3.73	0.0002	-2.48	0.0129
EQRAT	0.0998	0.1027	-1.90	0.0576	-1.49	0.1370
RISKWGT	0.1450	0.1561	-3.37	0.0008	-3.24	0.0012
RSA	0.2648	0.2646	0.02	0.9864	-0.39	0.6958
RSL	0.3932	0.4035	-1.92	0.0550	-1.92	0.0550
GAP	-0.1280	-0.1390	1.25	0.2105	0.66	0.5088
INTDEP	0.6561	0.6768	-4.41	<.0001	-4.80	<.0001
NOINTDEP	0.1370	0.1315	1.62	0.1048	1.16	0.2462
INTDEPCT	0.8267	0.8372	-2.42	0.0158	-2.27	0.0228
LOANS	0.6605	0.6746	-2.25	0.0248	-2.58	0.0097
ALLPCT	0.0125	0.0131	-1.79	0.0736	0.41	0.6841

When we look at the risk characteristics, we find that the use of interest-bearing deposits appears to be an impediment to engaging in international banking. Banks relying on less costly and more stable, non-interest bearing deposits tend to be more often drawn to international banking. Similarly, the extent of capitalization (defined as equity or in risk-based terms) appears to not be the factor assumed as more heavily capitalized institutions are less likely to engage in international banking activities. Thus, relying on more secure deposits may preclude the need for capital for engaging in international banking activities. This may be due to the preferential treatment accorded letters of credit (as opposed to more traditional forms of credit) in that capital is only required to match 20 percent of their value vis-à-vis 100 percent for other credits.

In addition, rather than simply looking at the variables individually, we instead examine them simultaneously using logistic regression. The aim is to determine those factors most likely to allow us to differentiate between institutions involved in international banking from those that are not involved. The logit results indicate that besides bank size, banks more heavily invested in rate-sensitive assets were surprisingly more likely to add to this amount by engaging in international banking activities. Banks with lower levels of outstanding loans were also much more likely to engage in international activities. In addition, and confirming the earlier discussion, banks with more stable non-interest bearing deposit liabilities and those with lesser amounts of risk-based capital were also apparently more likely engaged in international banking.

CONCLUSIONS AND DISCUSSION OF FUTURE RESEASCH

Whether or not a bank engages in international banking is a complex issue. Although there are potential gains from generating revenues and developing customer relationships, there are serious impediments, apparent and imagined, to providing such services. Community banks have moved away from the international arena and the reasons why are varied and complex.

We have presented an initial glimpse into the complexities of this topic. The dominant and relatively obvious association of bank size with international banking activities indicates a need to more closely examine other potential factors besides the size of the institution. Furthermore, time series analysis of the changing nature of the industry may shed light on how some of the apparent relationships have changed or are changing with an attempt then to perhaps forecast the future

direction of the industry. In addition, more thorough analyses of the various relationships among the variables will be able to add depth to our understanding of the topic.

Given that international competitiveness in the commercial and industrial sectors are of such vital importance to the long-term strength of the U.S. economy, and that the importance of the financing of those commercial activities can not be overstated, a better understanding of the issues facing commercial banks can have wide ranging implications.

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EMERGING STOCK MARKETS EQUITY VALUATION PROCESS AND PRICE-VOLUME RELATIONSHIP

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ABSTRACT

This paper examines the stock price-volume relationship in emerging markets throughout the world. Using a vector auto-regression analysis on monthly index data, contrary to evidence reported by Saatcioglu and Starks (1998), we find strong evidence on stock price changes leading trading volume. This finding confirms the evidence reported by studies on many developed markets and the ones recently reported by Moosa et al. (2003) and , Chen et al. (2004) on Commodity futures market. However, the lack of strong evidence on the well-documented positive absolute price-volume relation may imply that differences in institutions and information flows in emerging markets are important enough to affect the valuation process of equity securities.

PRODUCT GROWTH AND MARKET GROWTH STRATEGY: IS THERE AN INTERACTION EFFECT ON ROI?

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ABSTRACT

The paper presents an empirical examination of the relationship of an organization's growth strategy to ROI performance. The study includes a sample of chief executive officers in the financial services sector, specifically credit unions. The author finds that, while most firms emphasize a strategy of using current products aimed at current markets for growth, the use of a specific growth strategy had no impact on profits as measured by return on investment. Therefore, product-growth strategy and market-growth strategy do not interact in their effects on ROI. Further investigation is needed to determine if either of these growth options influences ROI individually.

INTRODUCTION

Improving an organization's growth over time is a factor closely monitored by management due to the relevance and impact on many aspects of the firm. This study focuses on the issue of product-market growth strategy, specifically as presented by Ansoff (1957), and its subsequent influence on a firm's profitability. His typology suggests that growth within a product-market can be accomplished by focusing either on products: (i) existing products or (ii) new products, or by emphasizing markets: (i) current markets or (ii) new markets. Previous research into this strategic paradigm has emphasized growth through product development over growth through market development (Heany 1983, Weber 1976). Few researchers have focused on market development as the growth vehicle. The current study includes both market and product growth strategies and investigates their interactive effects on ROI performance in the financial services industry. Specifically, credit unions, an industry where consolidation has led to larger institutions facing stronger competition, are studied (Doyle and Wong 1998, Kaushik and Lopez 1996, Jefferson and Spencer 1998, Pleshko and Cronin 1997). The easing of government restrictions has led to cross-industry battles with other types of financial institutions such as traditional banks and savings banks. (Allred and Addams 2000) Thus, given the ongoing changes, the focus on growth strategies for this industry is appropriate.

LITERATURE REVIEW

Although opinions about growth strategies vary among scholars, most of the growth strategy research refers to Ansoff's (1957) conceptualization of the product-market growth matrix. According to his presentation, a firm may choose one or more competitive strategies, including intensive growth or diversified growth. He suggests the safest growth option is to adopt a market penetration or saturation strategy whereby a firm gains more usage from existing customers and also gathers some new customers from competitors. A slightly riskier proposal may be to adopt the market development strategy of gaining new channels, new geographic areas, or new types of customers for the current products/services of the firm. The next level of risk is a growth strategy where the firm produces entirely new products, different versions of existing products, or different quality levels of existing products to be sold to its current markets. The highest risk strategy is

suggested to be a diversified approach where new products are developed for new markets within a given product-market, of course.

Following Ansoff, Bradley (1991) suggests that a firm has numerous choices available as it attempts to improve marketing performance. First, it may adapt existing products. Second, it may develop new markets. Third, the firm may decide on a combination strategy of new products for new markets. Similarly, Kotler (1988) broadly classifies alternative growth opportunities open to firms as intensive, integrative, or diversified growth opportunities. These perspectives facilitate systematic identification and effective exploitation of strategic growth opportunities. It follows that product-market growth strategies can be generally classified into two groups: (i) growth realized through a focus on products or (ii) growth achieved through a focus on markets (Tull and Kahle 1990). Supporting this view, Hangstefer (1998) reports that, in order to build a company's growth momentum, managers must stimulate innovation in the core strategy. This innovation should be focused on factors such as the redefinition of markets or the development of products and services.

Proponents of growth through product efforts report that new products account for significant proportions of the growth achieved by individual firms (Weber 1976). Confirming this view, a study of eleven industries from the USA during the 1960's revealed that firms anticipated achieving seventy-five percent of their sales growth over the next five years through new product introductions (Booz, Allan, and Hamilton 1982). Weber (1976) suggests that as a firm's products move through their life cycles, the profitability of these products declines. This creates the need to drop those poorly performing products while at the same time add new products in order to maintain and increase the firm's overall sales and profits. This may be as simple as extending or differentiating the firm's existing product line(s), or it may mean introducing a product (and product line) totally new for the firm. The necessity of portfolio analysis skills for every firm is evident from this perspective focusing on product growth (Hedley 1977; Wind, Mahajan, and Swire 1983).

Not all product development leads to increased performance. Acar (1993) finds that firms with lower levels of product diversification (but with strengths in financial management) realize the highest proportional increase in sales revenue. For instance, product diversification for smaller firms appears to be a means of survival rather than a deliberate strategic choice. Similarly, Valos and Fitzroy (1991) reported that "defensive" business units were financially successful despite lower new product performance. Alternatively, they suggest that "offensive" strategies achieve similar financial performance to "defensive" strategies due to new product rather than new market efforts.

Proponents of growth through market-development argue that a firm's goals can be achieved by targeting new geographic markets or new market segments with current products. There is a dearth of empirical efforts relating market development efforts to firm performance. But a common theme is that market opportunities relate to the industry life cycle. For instance, Doyle and Wong (1998) report that it is difficult to achieve high performance in mature markets, but high levels of profitability are possible in growth markets.

Finally, the entire issue of growth through product-market development is criticized by other scholars who suggest a re-examination. Indeed, Ardishvili and Cardozo (1994) report that little evidence exists showing that firms undertaking new ventures rely on a consistent product-market strategy. They argue that these ventures have been a reaction to environmental changes, pressures from significant outside players, or reflected opportunistic reactions to unexpected events. They suggest that early diversification into multiple product markets does not seem to be a winning strategy for firms of any size or industry. Thus, more research is needed into the importance of growth strategies undertaken by firms to the outcomes of these strategic growth decisions.

INDUSTRY/SAMPLE DESCRIPTION

In order to empirically examine the effects of strategy on performance, a sample of chief executives from credit unions is taken in the financial services industry. Data for the study are

gathered from a statewide survey in Florida of all the credit unions belonging to the Florida Credit Union League (FCUL). Membership in the FCUL represents nearly 90% of all Florida credit unions and includes 325 firms. A single mailing was directed to the president of each credit union, all of whom were asked by mail in advance to participate. A four-page questionnaire and a cover letter using a summary report as inducement were included in each mailing. Of those responding, 92% were presidents and 8% were marketing directors. This approach yielded 125 useable surveys, a 38.5% response rate. A Chi-squared test of the respondents versus the sampling frame indicates that the responding credit unions are significantly different from the membership firms based on asset size (Chi-sq=20.73, d.f.=7, p<.01). Further analysis of the sample indicates that the smaller asset groups are under-represented. Thus, the results of the study should not be generalized to all credit unions, but may be indicative of medium to larger firms.

MEASURES

Four constructs are utilized in the study: asset size, product-market growth strategy, rivalry, and profitability (ROI). The four constructs are described in the following paragraphs.

Product-market growth strategy (GROWTH) is derived from two questions: one of which focuses on market growth strategy and the other on product growth strategy. Product-growth strategy is actually service growth and focuses on either [1] existing services, [2] new services, or [3] both existing and new services. Firms are self-classified by checking the box next to the appropriate descriptor. Respondents could check either of (a) we emphasize services presently offered by the firm, or (b) we emphasize services new to the firm. They could also check both of the boxes, indicating they use both new and current services for growth. Market-growth strategy focuses on either [1] existing market segments, [2] new market segments, or [3] both existing and new market segments. Firms are again self-classified by marking the box next to the appropriate descriptor. Respondents could check either or both of (c) we target market segments presently served by the firm, or (d) we target market segments new to the firm. They could also check both of the boxes, indicating they use both new and current markets for growth. Those firms which did not respond to the question were counted as missing and deleted from the analysis. Combining the product-growth and market-growth question resulted in nine categories of growth strategies. Eighty-nine respondents answered both the applicable questions. Table 1 shows the numbers and the ROI averages for each of the nine growth strategy groups. Note that the majority of firms are conservative in nature, emphasizing current services aimed at current markets for their growth efforts: 47% (42/89). A second common strategy is to use both current and new services aimed at both current and new markets: 19% (17/89). The third most common growth strategy is to use both current and new services aimed at current markets: 11% (10/89).

strategy	n	ROI
current services/current markets	42	8.19%
current services/new markets	3	8.90
current services/both new & current mkts.	3	6.43
new services/current markets	6	7.11
new services/new markets	5	7.04
new services/both current & new mkts.	1	8.28
both current & new serv./current markets	10	6.55
both current & new serv./new markets	2	9.24
both current & new serv./ both current & new mkts	17	7.16

Actual accounting data is used as the measure for return on investment (ROI). This data was gathered from summary reports regarding government-mandated financial performance of financial services institutions in the state of Florida, referred to as the Call Report. The ROI variable has a range from 0% to 17%, and an average of 7.77%. The ROI figures are available for one hundred firms, including all of the eighty nine which answered the growth questions.

The first control variable, environmental rivalry (RIVALRY), is included as a proxy for external influences on the firm and its performance. The environment has been conceptualized in a variety of ways throughout the literature. The two most common perspectives utilize either (a) competitive rivalry as a function of influences such as threat of entry (Dwyer and Welsh 1985, Porter 1980) or (b) descriptors of uncertainty such as dynamism and complexity (Miller 1988, Dess and Robinson 1984; Agrol, Torger, and Stern 1983). This paper looks at the perceived level of rivalry, which may be described as the amount or intensity of competitive activities facing the firm. The respondents are asked to evaluate their perceptions of the environment on a scale from very influential (5) to not influential (1) on the firm across four items: [1] price competition, [2] product proliferation, [3] competition on ancillary services, and [4] competitive rivalry. The principal axis factor analysis indicates that the four items load highly on a single factor explaining 63.7% of the original variance. An overall indicator of rivalry is constructed by summing the three items. A reliability of 0.806 is found using coefficient alpha. RIVALRY ranges from four to twenty with a mean of 13.23 and a standard deviation of 3.19.

The remaining variable in the study, asset size (SIZE), is included as a proxy for organizational variables and is included as a control. Firms are self-classified by marking the box next to the appropriate asset size category. A median split is used, with firms having asset holdings up to \$10 million considered to be small credit unions and those firms having holdings greater than \$10 million considered to be large in size. This produces fifty-nine small credit unions and sixty-five large credit unions.

ANALYSIS/RESULTS

The general linear model is used to perform a univariate analysis of covariance in order to test the influence of growth strategy on performance, as measured by ROI. The goal of the analysis is to determine if the interaction of product-growth and market-growth strategies has an influence on ROI performance. The regression model is as follows:

$$\text{ROI}=\text{SIZE}+\text{RIVALRY}+\text{GROWTH}.$$

Table 2 summarizes the results of the analysis for the credit union sample.

Item	SS	df	MS	F	"p"	finding
Model	71.26	10	7.12	1.85	.066	none
Intercept	297.51	1	297.51	77.16	.000	
RIVALRY	17.45	1	17.45	4.56	.037	(-)
SIZE	5.05	1	5.05	1.31	.256	
GROWTH	44.63	8	5.58	1.45	.191	none
Error	300.74	78	3.86			
Total	5598.37	89				
Corr. Total	371.96	88				
Adjusted R-sq.	.088					

As noted in the table, the model exhibits only a moderate level of significance ($p=.066$) while explaining an adjusted 8.8% of the variance in ROI. Growth strategy does not show a significant effect on ROI ($p=.191$), nor does asset size ($p=.256$). However, competitive rivalry is significant, having a negative influence ($p=.037$).

DISCUSSION/LIMITATIONS/CONCLUSIONS

The data shows that most credit unions stick close to home when implementing growth strategies. A large majority of firms are conservative, attempting to grow by targeting current markets with the current line of services. This might reflect the general tendency in the industry to stick close to home in both markets and services, maybe with the hopes of getting the best returns with the smallest risk. A less common growth strategy is a bit more aggressive, targeting current buyers, but with both current and new services. This would require more time and innovative energies to add new services to the current line. In addition, this strategy would be a bit more expensive in both time and money, thus requiring a bit larger total return to make up the difference in costs. Then there is the third most common strategy which is the most risky and aggressive of all, utilizing both current and new services aimed at both current and new markets. Of course, this requires the most time and effort and would demand much larger total returns to cover costs.

However, the analysis suggests no true differences are evident between the nine growth strategies in regards ROI performance. Therefore, firms which are less aggressive can expect similar returns to those firms which are more aggressive, when considering the combination of product-growth and market-growth strategies employed. This, null finding must imply that the larger total returns achieved by more aggressive firms are offset by additional spending required to achieve the returns. In the end, the ROI numbers are relatively equivalent across the industry, as evidenced by this study. Therefore, no specific combination of product-growth and market-growth strategy can be recommended over another based on ROI.

It is worth noting that credit unions operate as a 'retail' operation serving a limited market environment. The various services (such as checking accounts, ATM cards, car loans, first mortgages, etc.) offered by credit unions will eventually reach their profitability limits (per account) unless new technologies or other management strategies make possible significant and continuous cost reductions. Alternatively, profitability will most likely stabilize unless the firms can successfully move into either new markets, develop new services, or diversify into related areas.

The study should not be generalized to other firms in the financial services industry outside of credit unions. In addition, the results may not truly apply to smaller-sized credit unions due to their under-representation in this study. Credit unions exist in an environment that is somewhat more protected than other financial institutions, such as banks, and therefore any generalizations might be suspect. It is suggested that future studies investigate this relationship in banks, savings & loans, and other financial services industries. Future studies might also apply this framework to products industries in both the business-to-business and consumer products area to further test the findings.

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ROBBING PETER TO PAY PAUL? ABC COST ALLOCATION BETWEEN TRADITIONAL AND ONLINE BANKING FUNCTIONS

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ABSTRACT

Using a disguised account of the experiences of an actual bank, this paper illustrates some of the opportunities and pitfalls of developing a web-based component for an exiting bricks and mortar business. It offers suggestions on the use of Activity Based Costing and Activity Based Management to enhance the effectiveness of evaluations of the contribution of each segment of the business and better allocate shared costs between the physical and virtual.

INTRODUCTION

In 2002 there were 655 million registered Internet users, which is a 30 percent increase on 2001. The number of web users between 2000 and 2001 rose 44.3 percent in Asia, 43.4 percent in Africa, 33.5 percent in Latin America, 32.7 percent in Europe, and 10.4 percent in North America. (E-commerce and Development Report, 2002). At the same time, according to Forrester Research companies spend an average of \$1 million to launch an E-commerce site, with many costing between \$6 million and \$20 million. Whether they are selling products, or services, providing information, or advertising, these companies are all trying to grab a piece of a rapidly growing pie. More than \$18 billion worth of merchandise were sold via E-commerce in the United States in 1999, a figure that's expected to jump to nearly \$53 billion in 2003, according to Forrester. As a result of new personalization technology, more than 1 million frequent fliers had visited American Airlines' website to check their account status. Another 2 million people had signed up to receive weekly e-mails about low last-minute fares to their favorite destinations (King, 1999).

In this burgeoning industry, companies are forced to provide online services in order to remain competitive. To make good strategic decisions about how to position themselves to compete in this environment, they need good cost information. Under traditional costing theory direct cost are defined as those costs one is able trace directly to the cost object. All other costs are termed indirect. The cost object is the thing for which cost information is desired. Products, services, customers, and marketing chains are common cost objects. By their nature, indirect costs are costs that are shared between cost objects. When goal is to find the "true" cost of online business, the problem arises when costs are shared by both online and traditional functions.

For proper allocation of costs and income from transactions conducted through their websites companies can use tools to track which page or sections have been viewed the most. Understanding visitor demographics and which sections of web content are most popular with each demographic allows the company to better serve the needs of customers and prospects. It also allows them to make better decisions about which demographics to target to attract customers that are most profitable for them. This can also help to make decisions on how to communicate with the customers and prospects via the web, and where to best deploy web resources. This may help determine which web initiatives receive money. If visitors use a specific section of the web site, then it may be worthwhile to spend more to enhance those sections. Collect marketing information about how visitors use online support materials to aid decisions on where to deploy web content in the future will ultimately improve customer service.

In order to determine proper allocation of costs, the company first should determine the share of products or services sold due to having a website. Unfortunately, not all website visitors are perspective customers, and often website visitors seek information then subsequently purchase at a physical location. Since, it is extremely difficult to accurately determine which customers may have visited a physical location due to information available on the website; this use of the web is a marketing function that can be treated like other forms of advertising. The website could be considered to be directly effective in initiating a sale in two cases: if customer makes a purchase through website or if the customer obtains additional information about products on the website through instant customer service messenger or through email.

To help correctly identify additional customers who have been influenced by the marketing function of the website the company can use a separate phone line for website customers or offer a special promotion codes that customers could use at physical store. These activities would help determine the effectiveness of the website marketing just as any marketing effort is evaluated. This is especially important for companies that do not sell through their websites. If website is just for advertising and customer service needs, in order to properly allocate the cost related to the website such company needs information about the relative marketing effectiveness of the website.

For example, using a website counter the company knows that on average 200 individuals visit the website everyday. Of those 200 customers 20 customers contact the company representatives through email or website telephone number. The percentage of viable customers is calculated by dividing the number of customers who contacted the company on the total number of individuals who visited the website ($20/200=10\%$). Suppose the company also found out that on average only two of twenty viable customers buy a product. Another simple calculation ($2/200=1\%$) provides the transaction rate of the website. Suppose the price of product offered by the company is \$200, the website revenue would be \$400. Another useful calculation is the percentage of the website revenue that company spends on providing the web services.

To determine a proper allocation of shared (joint) costs the companies should compare their online activities with their traditional business channels. It is often argued that to reach effectiveness and efficiency, traditional and online business should compliment and support each other. Thus, several authors contrasted electronic retailing with physical retailing (Morrison and Roberts, 1998). Although most of the arguments offered in these articles are vague, they still provide a useful basis for analysis. When online shoppers are not able to find what they want online, they can be referred to an in-store salesperson. Then the question becomes where the sale should be credited: to the store or to the online venture, and how to determine the allocation of joint costs? Measuring and the costs of online and traditional business is an enormous problem that entails joint costs, indirect costs, and economies of scale. Revenues from online advertising and transactions go to the e-business, while retail store revenues go to the existing business. First of all it is necessary to focus on economics, which involves implementing the infrastructure to capture and track performance data. Taking all this into account, it could be summarized that in order to survive companies should have a practical economic model and manage their businesses accordingly. It is undeniable that operational effectiveness will ensure the long-term success of the company.

Online business provides the opportunity for a lot of data such as inquiries, orders, support requests, and interactive contacts. As a result companies can end up with long data streams that if analyzed for all usable information can require tremendous time and effort. However, it is important that online the business tries to make sense of this rich but raw data. The first essential task is to clearly articulate all touch points with the customer. Then it is necessary to build a cycle model that accounts for all the stages of interaction from first contact to account termination in the event the relationship is formally ended. The purpose of modeling is to ensure the company can chain together all the data for a customer and each sequence of interaction. The greatest potential can be realized when using data. to analyze the patterns of customer interaction to identify opportunities.

The following example is drawn from a real financial institution called “the bank” and disguised at the request of those providing the information. At the moment the bank provides a range of additional services to customers who already have accounts in physical branches. Those who contact the website without an existing account are directed to the physical branch. The bank carefully evaluates the services offered and categorizes them according to the extent to which they require detailed personal advice. Currently, the web is used to offer more general banking services, while the physical branches are there for meetings with financial professionals. Meanwhile, the bank is trying to increase the percentage of on-line business. In order to encourage the customer to use the online bank services, it offers favorable interest rates and fees. By analyzing the available data bank managers came to a unanimous agreement that online business play a supporting role to traditional banking. By moving to online business the bank has been able to streamline its business transactions increasing responsiveness to its customers and reducing customer costs. In addition, it has restructured relationships with customers and suppliers by web-enabling billing and payment systems and by linking with suppliers online thus reducing both paperwork and lag time. Additional revenues that are gained from online transactions help support physical branches, which face high costs. By contacting the Bank online, the customer can find the nearest bank branch or find out about more services offered by bank. The bank estimates the number of new customers obtained from the web using the tracking capabilities of the web software. After the data is analyzed and processed, the bank allocates the costs between the branches according to the number of new customers of each particular branch that can be attributed to the web presence.

In order to achieve the major goals of business process improvement and process simplification, the bank’s managers must fully understand the cost, time, and quality of activities performed. They must then determine the cost associated with each product and service. This can be best accomplished with an activity-based costing (ABC) system. Traditional cost accounting systems have two critical flaws: 1) the inability to report accurate individual product, service, customer or process costs, and 2) the inability to provide useful feedback to management for operational control. As a result, managers often make important decisions about product and customer mix, pricing, resource allocations and budgeting based on inaccurate and inappropriate cost and profitability information. The inability to accurately reflect the cost of different products or classes of products is particularly worrisome when trying to assign costs to online versus traditional banking. ABC is essential to understand the true costs of different products and customer activities.

Traditional costing systems summarize all indirect costs into a limited number of overhead pools that are then allocated to products, typically on an output unit level activity. In a service such as banking, as well as in manufacturing, direct labor is the activity most often chosen as the estimator (allocation base) for the amount of indirect cost to be assigned to a product or service. Whether direct labor or some other single activity is chosen, using one activity does not reflect the different demands different products or services place on the system. This is particularly problematic when the system provides of very different products or services as in the case of online or traditional banking. The different classes of business require very different support and activities, and traditional costing does not adequately reflect the cost of these different activities.

Implementing an effective ABC system depends on support at all levels within the organization. Management must first be convinced that traditional cost accounting practices do not meet all of its cost management requirements. Management can then be shown how ABC can be used to effectively fulfill those unmet requirements. Management, particularly senior management, must be persuaded that activity-based costing belongs on top of everyone’s agenda. In addition, the management accountants, who are traditionally responsible for the cost accounting system, must be convinced that the old methods no longer work and that an ABC approach is the solution. Without this support a new system will be doomed to failure. Organization-wide education will be an important element in convincing participants to change, as well as effecting the change.

STEPS IN DESIGNING AN ACTIVITY-BASED COSTING SYSTEM

First, all costs should be identified as being the result of the underlying activity that gives rise to the cost. All activities contribute to costs and all costs should be identified with an activity or type of activity. For some participants in the process, this may be the most difficult step in designing an activity-based costing (ABC) system. In banking for example, employees seldom have a problem with identifying activities such as teller line customer contact, or web updates, but they are unaccustomed to thinking of providing space or providing equipment as an activity. Once this hurdle is cleared, all activities can be identified. This is a process that may take several iterations and should involve both the input of personnel with a through knowledge of operations and personnel with a through knowledge of costs. Care should be taken that all activities are identified and all costs included.

The second step is to trace costs to the activities. In manufacturing, direct materials and direct labor are costs that can be traced directly to the product, and all other costs are subject to the process described in step one. In refining cost systems for services, this identification of direct materials and direct labor accounts for a smaller percentage of total costs and may not be appropriate at all. If any activities or any labor is provided exclusively for one product, then it is appropriate to trace the associated cost directly to that product in the way that direct material and direct labor are traced. However, this is seldom possible. Often all activities are performed to benefit or support multiple types of products.

Third, the scope of the activities of the organization should be identified and analyzed. Just as direct costs of products can be traced to those products, direct costs of activities can be traced to the activities. In fact, all costs can be traced directly to activities at some level in the organization.

Above this level of cost are the costs of upper management. After all costs that can be identified in this manner are examined and assigned to activities and all activities are examined to determine their scope and the level of the hierarchy to which they belong, the last step is to be sure that all costs have been assigned to some level of activity. It is difficult in any organization to identify facility-sustaining costs with product level activities. For instance, the relative amount of time and/or space different activities require might be a useful schema to determine how much of the cost of providing space should be allocated to transaction activities, processing activities and initiating and terminating activities. However such a logical assigning schema is difficult to imagine for upper management. At this highest level, cause and effect are hard to determine and often cost is just assigned uniformly using some measure that seems fair such as revenues generated, or number of accounts.

After a through analysis of each activity and the determination of the level at which activities occur, the forth step is to determine the cost for the activity. These costs can be salaries, expenditures for research, machinery or office furniture or any of myriad other expenditures. When historical cost records are not available, industry averages adjusted to reflect any expected differences may be helpful. Once the results of analyzing activities and the gathered organizational inputs and costs are brought together, they produce the total input cost for each activity. In this respect total costs consumed by an activity can be calculated (the percent of time spent by an organizational unit, e.g., bank branch, division, on each activity by the total input cost for that entity). Once the actual activity unit cost is calculated output measures can be established and it is possible then to establish and analyze the costs.

After implementing activity-based costing, companies can adopt activity-based management (ABM), which increases both the value that customers receive and the profits to the organization (Turner, 1992). ABM is a new level of information combining financial and operational information in a way that both can be used for improved decision making. It is a management information tool not a financial statement valuation method. To fulfill this purpose requires that the information system take into account both the operational processes of the organization and the resource costs

as represented in the financial system. These then must be combined in such a way that they 1) reflect how the organizational process consumes resources and how costs flow and 2) capture in total the costs in the financial system to insure the financial integrity of the model (Tarr, <http://www.theacagroup.com/>).

The bank managers measure customer profitability by using activity-based budgeting and by integrating ABC throughout the bank. They allocate costs for shared services allowing them to price products and services accurately and efficiently. This approach is necessary to get a better estimate on their costs and in order to accurately model future business activities, especially those activities shared between web-enhanced and traditional business. In this case activity-based management is an excellent option because it enables managers to analyze the costs and profits of its business activities, determine which activities cause costs and which products are use the activities. By managing the activities, costs are automatically managed for better present and future cost and profitability.

CONCLUSION

As it was demonstrated, activity-based costing and activity-based management can be applied in different ways to determine allocation of joint costs in traditional and online business. It is a flexible and powerful methodology that has a unique ability to deliver true cost information, from which critical decisions can be confidently made.

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