Centre for Responsible Banking & Finance

RBF

University of St Andrews
School of Management

WORKING PAPERS IN RESPONSIBLE BANKING & FINANCE

Does Board Gender Leadership Matter in Participatory Community Based Organisations?

By *John Forker, Barry Reilly and Anne Marie Ward*

Abstract: Participatory community based financial organisations have an important role to play within communities as they help to reduce financial exclusion by providing financial services that would not otherwise be available to their respective communities. In addition, we argue that this type of cooperative organisation acts as a conduit for transformational change within community labour markets and enables the empowerment of women. This allows market forces to prevail and the gender economics literature predicts a comparative advantage from female involvement in these organisations, particularly in deprived regions. Therefore this paper investigates: female participation in leadership positions, financial performance and social impact to determine if gender is important and if there are differences in female participation and performance depending on the deprivation of the location of the credit union and its membership. An archival database was constructed from 1775 annual returns over a ten year period 2002 to 2011 and used to examine whether gender differences arise in the governance of participatory community-based financial organisations across different socio-economic communities and to investigate whether organisational performance (measured using financial and community outreach proxies) are associated with female leadership and whether the relationship differs according to community deprivation.

WP Nº 15-012

4th Quarter 2015

Does Board Gender Leadership Matter in Participatory Community Based Organisations?

John Forker
University of Sussex
Brighton
BT1 9RH

Barry Reilly
University of Sussex
Brighton
BT1 9RH

Anne Marie Ward
Ulster University
Jordanstown
Co. Antrim
BT37 0QB

Does Board Gender Leadership Matter in Participatory Community Based Financial Organisations?

ABSTRACT

Participatory community based financial organisations have an important role to play within communities as they help to reduce financial exclusion by providing financial services that would not otherwise be available to their respective communities. In addition, we argue that this type of cooperative organisation acts as a conduit for transformational change within community labour markets and enables the empowerment of women. This allows market forces to prevail and the gender economics literature predicts a comparative advantage from female involvement in these organisations, particularly in deprived regions. Therefore this paper investigates: female participation in leadership positions, financial performance and social impact to determine if gender is important and if there are differences in female participation and performance depending on the deprivation of the location of the credit union and its membership. An archival database was constructed from 1775 annual returns over a ten year period 2002 to 2011 and used to examine whether gender differences arise in the governance of participatory community-based financial organisations across different socio-economic communities and to investigate whether organisational performance (measured using financial and community outreach proxies) are associated with female leadership and whether the relationship differs according to community deprivation.

INTRODUCTION

Community financial organisations have historically had an important role to play within communities, providing access to financial services to people who may have difficulty obtaining the services from conventional financial institutions (Hartarska & Nadolnyak, 2012). The proper governance of these entities is important, as their utilisation of scarce resources within communities has the potential to revitalise low-income communities and the individuals within these communities ((Hartarska & Nadolnyak, 2012). In addition, community organisations create employment opportunities, strengthen family ties to the community, attract skills and investment and help create long-term stability (Tehrani & White, 2003).

The president of the board in non-profit organisations (Drucker, 1990)has responsibility for the proper governance of the entity. All critical actions are initiated by the president (Gronbjerg, 1991; Heimovics & Herman, 1990) and the president is at the heart of the organisations information flows and has an informational advantage over the board (Heimovics, Herman & Jurkiewicz Coughlin, 1993). Therefore the role of president is regarded asthe most prominent and powerful position in non-profit organisations (Harrison & Murray, 2012; Prouteau & Tabariés, 2010).

The low incidence of females in leadership roles in for-profit organisations is well documented as is the discussion of barriers to female advancement, a so called ‘glass ceiling’, which makes it more difficult for females to attain senior leadership positions (Oakley, 2000; Auster, 1993). Even when females obtain leadership positions, research in for-profit organisations has found that the tenure of male CEO’s is longer relative to that of female CEOs (Ryan and Haslam, 2009) and females are paid less (Kulich, C., Trojanowski, G., Ryan, M., Haslam, S & Renneboog., 2011). A common argument by for-profits when defending male dominance in leadership positions is that females do not have the required experience (Oakley, 2000).

This argument does not hold in non-profits where higher concentrations of women at all levels in the workforce, including board positions provide a more experienced pool of potential female leaders to choose from (Shaiko, 1997; Mastracci and Herring, 2010; Forker and Ward, xxxx). The larger concentration of experienced females is argued to account for the greater proportion of female participation at board level in non-profits relative to for-profit boards (Abzug et al. 1999; Tyson, 2003). Yet a low proportion of female leaders relative to level of females involved in non-profits combined with the existence of salary differentials is claimed to reflect the glass ceiling phenomenon in non-profits (Gibelman, 2000; Moore & Whitt, 2000). Abzug et al. (1999) reports that inequality does exist in non-profits when it comes to leadership positions; with men tending to be overrepresented in the most powerful leadership positions such as president (see also Pynes, 2000; Themudo, 2009; Lansford et al., 2010; Prouteau & Tabrariés, 2010).This 'potential bias' results in an under-utilisation of the human resource capital that is available when leaders are being appointed.

Several studies have examined the different leadership styles and attributes of female leaders but few studies have examined the potential consequence of this under-representation of female leaders on the financial and social performance of community non-profit financial organisations.In the for-profit sector, Davis, Babkuks, Englis & Pett (2010) report a link between profitability and gender leadership in small and medium-sized services businesses. Smith, Smith and Verner (2006) find that the performance of top female executives in for-profits strongly depends on qualifications andMcKinsey & Company (2008) and Vinnicombe et al. (2008) champion the benefits of females as effective leaders.Only a few studies have examined the issue in the nonprofit sector. In a study on self-help bank linkage groups in India, Parida & Sinha (2010) report that only all-female self-help bank linkage groups are sustainable. However, a US study on CEO gender and credit union performance found no link between financial performance and gender (Hays, Day & Belanus, 2012).

Consistent with contingency theory, the differing findings may suggest that performance is more complex than being just affected by gender; performance may be contingent on the type of organisation, circumstances and the environment (Fiedler (1967) and Lawrence & Lorsch (1967) cited in Carter. et al, 2010; Prouteau & Tabariés, 2010)). As a consequence, this study focuses on one type of non-profit financial community organisation in one region – credit unions in Northern Ireland. The Northern Ireland credit union sector is selected as the study site due to data availability and it provides a natural experiment as the sector has not been influenced by any external policy on female participation or by changes in legislation.

The gender economics literature suggest that females typically have a more active role in community advancement (social and economic), are more likely to be suited to the type and conditions associated with work in non-profit community organisations (part-time, low-paid), have traits and preferences that are more aligned with non-profit community organisations (Themudo, 2009; Midgley, 2006) and have financial management skills obtained from running their private households (Midgley, 2006); hence females have stronger links with the external stakeholder population and therefore ceteris paribas make better leaders.

This study makes a number of contributions to the literature. Using a longitudinal case study approach covering a nine year period from 2002-2010, the study documents changes in the gender orientation of board presidents and provides empirical evidence on the association between, gender leadership and credit union financial performance and community contribution.

In a study on gender and the nonprofit sector Themudo (2009) concluded that females did not act as a homogenous group towards a homogenous nonprofit sector - they engaged differently with the nonprofit sector depending on their circumstances and characteristics. Consistent with this finding, the literature on gender economies and community development identifies that females are particularly active in economic community development and regeneration in both rural (Midgley, 2006) and urban settings (Silverman, 2003) when community and household needs are aligned and need is greater. For example, females were instrumental in the formation of a community co-operative to take over a local post office in a mining village in Northern England when Royal Mail had decided to close the branch (Midgley, 2006). If this argument holds, then it is likely that females have greater community economic roles in areas where there is more household need so a difference in leadership gender and behaviour is likely to occur relative to locality deprivation.

The findings support the promotion of female leaders in deprived locations, credit unions with female presidents in more deprived locations have stronger reported financial performance and are more prudent than credit unions with male presidents. In the more affluent areas male leaders performed better. When social spend by credit union is examined, credit unions with female leaders in the more affluent areas are more generous in terms of external community spend relative to credit unions with male presidents but are less generous than credit unions in more deprived locations than credit unions that have male leaders. Finally, credit unions located in the more affluent areas with female leaders are more likely to employ staff than to use volunteers whereas credit unions with female leaders located in the more deprived areas are more likely to use volunteers relative to credit unions with male leaders.

The paper is structured as follows: The next section critically evaluating the female leadership discourse using the resource dependency, gender economy and contingency theories. Section three outlines the methodological approach and data and study site is framed in section four. The results are presented in section five and the conclusions in section six.

LITERATURE AND THEORETICAL BACKGROUND

The gender economics literature analyses differences and the reasons for the differences in the economic status of men and women (Mezentseva, 2000). In general the theory assumes that women have a lower economic status than men. Several theoretical lenses have been used to analyse reasons for the difference including ideologies from Marxist theory (and areas close to it such as neo-Marxism, radical and socialist feminism), neoclassical theory and institutional economics (Mezentseva, 2000). This paper does not try to theorise on the reasons for women historically having a dominant role within households and a subordinate role in the economy, nor is it entering the debate on the value of either labour option. Instead, the theoretical contribution builds on interconnections between the gender economics and community development literature by theorising that social and economic benefits from female empowerment are more likely in certain situational circumstances, namely in participatory community organisations located in deprived communities because of market forces.

Gender economics and community transformation

The labour market for women has been transforming since the 1900s when men dominated public roles within the labour market and women were primarily responsible for unpaid work within their households(Spain, 2002). Over the past century women have become increasingly active in the labour market within both the private and public spheres (Turner, 1995; Spain, 2002). For example, in the US, the proportion of women in the labour force nearly doubled between 1950 and 2000 (Spain and Bianchi, 1996 cited in Spain, 2002). This shift in gender role has led to a transformation within communities, including community infrastructure with an increase in businesses that provide childcare facilities, assisted care facilities for the elderly and eating establishments (Spain, 2002). This societal transformation has been fuelled by increases in the number of women obtaining an education, entering the labour force and becoming female-only house owners (Spain, 2002).The community development literature has reported many stories of female involvement in community development in light of adverse social and economic situations. This is not unexpected as women have traditionally been concerned with family and community and they are the first to recognise threats to their households and to act on the threats (Garland, 1988). There are examples from history of women intervening in community activities/organisations to form or improve links between their home and their community, city, religion and nation (Leavitt, 2003), particularly when this benefits their household (Midgley, 2006). Intervention noted within the literature includes the formation of organised protests to improve low income housing, welfare rights and environmental issues (Leavitt, 2003), setting-up informal community networks to address issues such as neighbourhood schools, public safety and local housing conditions (DeSena, 1998) and the formation of formal community development work groups or cooperative organisations. Examples of the latter type of female activism include setting up a committee to oversee and manage the creation of homes within landlord-abandoned buildings in Harlem (Leavitt, 2003), the formation of self-help microfinance groups in India (Parida & Sinha, 2010) and the formation of a community co-operative to take over a local post office in a mining village in Northern England (Midgley, 2006). Moreover, Milroy and Wismer (1994) identified women's voluntary community work as an essential link between the home and the workplace. The change in the economic value of females within the public labour market is evident not only within for-profit and public organisations but also in the non-profit and third sector with women making up the dominant portion of the volunteer workforce within may non-profit organisations.

Midgley (2006) suggests that women within communities have skills and business experience that are not typically recognised by organisations, that regardless of economic contribution to households, women are the financial managers within their household (Midgley, 2006; Hall, 2004; Volger, 1994). Females typically have responsibility for household budget management, saving, borrowing, keeping families together (Ledwith, 2011) and the protection and maintenance of household economic status (Midgley, 2006). Midgley (2006) argues that these financial management skills are transferred to community activities. However, though transformation has been occurring, it is considered that an imbalance still exists within the gender economy with a lean towards patriarchal practices, associations and networks (Little & Jones, 2000; Midgley, 2006) and that economic stability within organisations and within communities could be better achieved by having a reflective balance of males and females across differing roles. The low incidence of females in leadership roles in for-profit organisations is well documented as is the discussion of barriers to female advancement, a so called 'glass ceiling', which makes it more difficult for females to attain senior leadership positions (Oakley, 2000; Auster, 1993). Even when females obtain leadership positions, research in for-profit organisations has found that the tenure of male CEO's is longer relative to that of female CEOs (Ryan and Haslam, 2009) and females are paid less (Kulich, C., Trojanowski, G., Ryan, M., Haslam, S & Renneboog., 2011). A common argument by for-profits when defending male dominance in leadership positions is that females do not have the required experience (Oakley, 2000). This argument does not hold in non-profits where higher concentrations of women at all levels in the workforce, including board positions provide a more experienced pool of potential female leaders to choose from (Shaiko, 1997; Mastracci and Herring, 2010; Forker and Ward, xxxx). The low proportion of female leaders relative to level of females involved in non-profits combined with the existence of salary differentials is claimed to reflect the glass ceiling phenomenon in non-profits (Gibelman, 2000; Moore & Whitt, 2000). Abzug et al. (1999) reports that inequality does exist in non-profits when it comes to leadership positions; with men tending to be overrepresented in the most powerful leadership positions such as president (see also Pynes, 2000; Themudo, 2009; Lansford et al., 2010; Prouteau & Tabrariés, 2010). This 'potential bias' results in an under-utilisation of the human resource capital that is available when leaders are being appointed.

Female Leadership and community deprivation

Indeed, drawing from research by Damer (1990), McArthur et al. (1993) discuss how before the emergence of formal credit unions, females came together in informal groups within communities to make regular payments to form a common pool of funds which would then be given to a member of a group. All members took their turn to receive the funds. This arrangement encouraged members to save and provided a source of funds for household advancement.

There is evidence from studies on community development in Britain and on credit unions that women have played an important role in the formation of community credit unions. Jones (2001) reported that 25 women came together to form a credit union in Toxeth, Liverpool as a solution to poverty and as a means of helping to meet the financial needs of disadvantaged communities. Ledwith (2011) also uses the example of Hattersley Credit Union (England), where in local women were active in the formation and running of a local credit union in 1988. The women 'developed skills they never dreamt they had'. They staffed collection points, pored over bookkeeping and assessed people for loans. The women also played a key role in spreading their knowledge and helped to form other credit unions in nearby disadvantaged areas (Ledwith, 2011). From an examination of this literature therefore it is hypothesised that female activism is more likely in more deprived regions, where financial exclusion is likely to occur.

Institutional structure and the empowerment of women

Literature on the role of women on community development has considered their leadership style and resultant organisational structures (Stall and Stoecker, 1998) and their use of informal networks to address community needs (DeSena, 1998; Pardo, 1998). The assumption in the latter being that women-led community activism results from the dichotomy between the public and private spheres in patriarchal societies, wherein women are typically only productive in the home (Silverman, 2003). This is a controversial view with other studies emphasising that women are active in both spheres (Turner, 1995; Spain, 2002).

CONCEPTUAL FRAMING AND RESEARCH DESIGN

Business Case

To determine if a business case exists for female leadership within non-profit financial institutions an investigation of the association between financial management variables (efficiency, prudency and loan book quality) and the presence of a female president on the boards of credit union is undertaken. Resource dependence theory hypothesises that boards with female presidents are more likely to reflect the demography of the key stakeholders, the members, volunteers and employees. Therefore it is postulated that credit unions with female leaders are more likely to have a better understanding of the needs and wants of the key stakeholders (design of credit union products and distribution of surpluses), are more likely to have stronger links with the different stakeholders and hence be able to obtain the resources that the credit union requires, for example volunteers and staff loyalty. This generates the prediction that credit unions are more efficient, more prudent and have better quality loan books. Thus,

H_1 Ceteris paribus, a positive relationship exists between the existence of a female president on the board and the levels of efficiency, prudence and loan book quality in credit unions. This relationship will be stronger in more deprived regions.

SocialCase

To investigate if a social case for female leadership in non-profit financial institutions exists the association between two community variables (social spend and a volunteer proxy) and the presence of a female president on the boards of credit unions is analysed. Resource dependence theory hypothesises that the influences on community spend are likely to alter relative to the deprivation of the locality of the credit unions (and its members) as in more deprived regions the members are less well-off and less likely to accept director decisions that transfer value from credit union members to others in the community. Therefore, according to resource dependence theory female leaders in credit unions in more deprived regions have a better insight into member needs hence are less likely to promote external social community spending and more likely to mobilise volunteers from within the membership.

Thus,

H_2 Ceteris paribus, a positive relationship exists between the existence of a female president on the board and the levels of social spend and volunteering in credit unions. The relationship with volunteering will be stronger in more deprived regions but weaker for social spend.

In this paper an OLS estimation is used to investigate the association between female presidents on the board and financial management characteristics(efficiency, prudence and loan book quality) and community commitment (social spend and a volunteering proxy).

The continuous dependent variable specification is:

$$v_{j,it} = (w_{it}, d_i, a_{it}, s_{it}, y_{it})$$

$$i = 1, \ldots, N;\ j = 1, \ldots 3;\ t = 1, \ldots, T$$

The dependent variables $v_{j,it}$ are five ratios. Three measure efficiency - return on assets ($v_{1,it}$); prudence, capital reserve level ($v_{2.it}$) and loan book quality, the provision for loan losses ($v_{3.it}$) and two measure community commitment, social spend level ($v_{4.it}$) and a volunteering proxy, wages to total assets ($v_{5.it}$) assuming that paid staff substitute volunteer labour, therefore credit unions with high wages to asset ratios use fewer volunteers relative to credit unions with low wages to total assets.

Independent variables are female president (w_{1t}) a dichotomous variable coded one on an annual basis for female presidents, zero otherwise. An alternative characterisation is investigatesfemale influence (w_{2t}), coded one in credit unions with male only presidents in the study period; alternatively, coded two for credit unions having mixed gender presidents or coded three for credit unions with female only presidents and a measure of social deprivation (d_i) based on credit union location. Finally, three control variables are included: a_{it} is log of age, s_{it} is log of total assets and y_t are year effects.

The pooled cross section panel of credit union data allows alternative specifications to be investigated. However, as there is limited variation in the percentage of women on the board within credit unions this limits the scope for fixed and random effects panel data analysis and our preferred solution is to report the results of pooled cross section OLS estimation using standard errors adjusted for clustering (Forker and Ward, 2012; Smith, Smith & Verner, 2006).

STUDY SITE AND DATA

The study site

The study focuses on the credit union sector in Northern Ireland. The sector is important in this region with membership comprising over 26% of the relevant adult population (McKillop, Ward & Wilson, 2010). Credit unions are not charities - they are community, co-operative, democratic, non-profit financial services providers that have a unique governance model. Thedirectors and president must be elected by the membership from within the membership. Regardless of level of share capital (funds deposited) each member has one vote. There are no non-executive directors and board members do not receive a salary or bonus. The key leadership roles are president, vice president, treasurer and secretary.There is no public policy in Northern Ireland on gender diversity within governing boards of credit unions. Trade associations provide self-regulation. The two main trade associations provide limited guidance on governance structure and one of them has a rule that at least two members of each sex should be a member of the board of directors.

The argument in support of having female leaders is particularly pertinent to credit unions as females make up a greater proportion of the main stakeholder groups. For example, credit union members are more likely to be female - McKillop, et al (2003) reported that in 2001, 53% of the members of credit unions in the Republic of Ireland were female, McArthur et al. (1993) reported that 70% of credit union members in Scotland, 60% in England and 62% in Northern Ireland were female. In addition, studies have also reported that volunteers in credit unions are predominately female though type of credit union impacts of the level of female volunteer participation. For example, Jones (1999) found that female volunteers were less prominent in work-based credit unions whereas female volunteers were more prominent in community based credit unions. Overall he reported that in 56% of British community credit unions over 75% of the volunteers were female. Consistent with McArthur et al. (1993)

Jones reported a higher representation of female involvement in credit unions in Scotland (72% of credit unions in Scotland had over 75% female involvement) relative to England and Wales (46% of credit unions in England and Wales had over 75% female involvement). Ward and McKillop (2010) found that board member volunteers were predominately male but non-board volunteers were predominately female. McKillop et al. (2003) reported that a higher proportion of the full-time and part-time staff in Republic of Ireland credit unions are female (average of 3.754 full-time females to 1.052 full-time males and 2.329 part-time females to 0.256 part time males) with the same pattern evident in Northern Ireland (average of 1.825 full-time females to 0.281 full-time males and 3.088 part-time females to 1.246 part-time males).

Data on leadership gender

Data on leadership gender, financial performance, community spend and use of paid staff was extracted from 1,527 hardcopy annual returns of between 179 and 184 credit unions covering a nine year period from 2002 to 2010. The sample included three start-up credit unions and eight credit unions that no longer filed annual returns. A summary of the overall gender profile of the president position within Northern Ireland for the whole period is provided in Table 1. Of the 1,527 observations 321 (21.12%) are female and an increasing pattern over time is evident with 32 out of 170 (18.82%) president positions being held by females in 2002 and 42 out of 172 (24.328%) president positions held by females by 2010. This is consistent with the general growth of a more gendered economy that is occurring in most countries (Walby, 1999). State intervention (equal opportunities legislation and the removal of protectionist practices) and technological change (e.g. washing machines) has slowly reduced the barriers and created opportunities that support a more gendered economy with an increase in the level of females within the employed population and within higher-level posts being noted year on year (Walby, 1999).

Insert Table 1 about here

The literature on gender economics identifies that females have a strong role in community development (Midgley, 2006) and that the strength of their links with the community is hypothesised to be associated with the level of need within their household and within the community. Therefore, this study examines the behaviour of female leadership according to the deprivation of their community. The Northern Ireland Statistics and Research Agency has prepared a multiple-deprivation measure for each postcode (proxy for the community). This measure encapsulates 52 indicators of spatial deprivation that are analysed into seven groupings including low income (25% weighting), low employment (25% weighting), health deprivation and disability (15% weighting), education, skills and training (15% weighting), proximity to services (10% weighting), crime and disorder (5% weighting) and the living environment (5% weighting). The higher the number index the greater the level of spatial deprivation in that postcode. Credit union postcodes were manually matched to those provided in the Multiple Deprivation Measure database. One key feature of credit unions is that they typically are located within the community that they serve; hence it is assumed that the deprivation measure reflects the spatial deprivation of the credit union membership. Details of the deprivation measures analysed by president gender for the population are provided in Table 2.

Insert Table 2 about here

It is clear from this table that on average female presidents are found in credit unions that are located in more deprived locations as evidenced by the higher multiple deprivation measure score of 33.027 compared to a score of 26.705 for the location of credit unions with male presidents. This difference is significant at the 1% level (t-test -6.319(p=0.000)).

Dependent variables

The descriptive statistics for the financial and community commitment indicators are provided in Table 5. Efficiency is measured by return on capital employed. All credit unions in Northern Ireland charge the same interest rate (1% per month[1]); therefore surpluses reflect the efficiency with which they utilise the input costs to generate surpluses. The average return on capital employed for the whole population (1,527 observations) was 4.49% and credit unions with male presidents had on average higher returns, at 4.504%, than credit unions with female presidents (4.438%), however, the variability in returns in the male led credit unions is higher (higher reported standard deviation for the population (2.200%) and greater range of returns – from a negative ROCE of 10.881% to a positive return of 25.731%).

Insert Table 5 about here

Prudential behaviour is captured by the capital reserves percentage ratio. Under the Northern Ireland Credit Union Order 1985 credit unions are required to hold between 10% and 20% of their total assets as capital reserves. The average capital reserve level for the period 2002 to 2010 was 10.91%. As reported in Table 5, credit unions with female presidents held on average 11.25% in capital reserves and credit unions with male presidents held 10.82% in capital reserves. Loan book quality is measured using the regulators recommended provision for loan loss percentage. This provision may be different to the actual provision that is included within a credit union’s financial statements. It is calculated with reference to the number of weeks that loan accounts are in arrears. In a study on the

[1] Two credit unions charged 0.75% per month. To compensate for this their income was grossed up by one third and the surpluses adjusted to make them comparable with the rest of the sample within the dataset.

regulatory behaviour of credit unions in Northern Ireland, Forker and Ward (2012) reported that over 97% of credit unions complied with the Regulator's recommended provision as a minimum and an examination of the non-complying observations revealed that the small percentage of offenders were typically early start-up credit unions wherein the recommended provision was immaterial. Where the credit union was established the under-provision was typically amended in the following year. As can be seen in Table 5, the average provision for the population is 3.363% with credit unions with female presidents having lower required provision levels (2.836%) relative to credit unions with male presidents (3.501%).

The community commitment variables include a social spend ratio and a volunteer proxy. The social spend ratio is calculated by dividing social spend by total assets. Social spend is restricted by legislation and can only be paid out after a dividend of three per cent has been paid to current members and transfers to reserves have been made. The average social spend per credit union is 0.013% of total assets and credit unions with female presidents pay out on average 0.014% relative to payments of 0.014% made by credit unions with male presidents. It is clear from the reported median values that the majority of credit unions elect not to spend any funds on the community that is external to its own members. The volunteer proxy is a wages to total assets ratio. The higher the ratio the greater the use of paid staff and conversely the less use being made of volunteer labour. As presented in Table 5, credit unions with female presidents used greater levels of paid staff (the wages to total assets ratio is 0.852%) and conversely lower levels of volunteers relative to credit unions being run by male presidents.

This is contrary to expectations, however, in a study on the differing behaviour of gender leaders after the introduction of gender quotas in Norway in 2006, Matsa and Miller (2013) found that female leaders typically hoard employees, considering them a long-term investment by the organisation.

Independent variables: control variables

Three control variables are also included: size, age and year effects. Prior literature that examines the performance of credit unions reports that size is the most important variable that differentiates the financial behaviour of credit unions (McKillop, Glass & Ward, 2005; Ward & McKillop, 2005a, b) with credit union age also having some significance (McKillop, et al., 2005; Ward & McKillop, 2005a, b). Prior studies on credit union performance and efficiency report that credit union size is the most important variable underpinning credit union behaviour. Credit union size is measured using the logged value of end of period total assets (Ward & McKillop, 2005a, b). A positive association with efficiency is predicted as prior studies report the existence of economies of scale (McKillop et al., 2005). A negative association is expected between size and capital reserve levels (Forker and Ward, 2012). Excessive capital reserves are considered to benefit future members but damage current member wealth due to the inability of credit union members to sell their share in the credit union (Hart & Moore, 1996). Therefore, credit unions will hold the statutory required minimum level (10% of total assets). Finally, large credit unions can afford to employ a trained manager (Ward and McKillop, 2005a)' hence a positive association is predicted for size and loan book quality.

Age is expected to be positively associated with return on assets, reserve accumulation and the provision for doubtful debts. Older credit unions are more experienced with established operating practices and policies that have evolved over time to take account of efficiencies. Minimum capital reserve levels are laid down in legislation. Credit unions are required to transfer a minimum of 20% of yearly surpluses to capital reserves until the minimum 10% threshold is achieved - young credit unions require time to build up to such a level (Forker and Ward, 2012). Related to this, young credit unions are under pressure to meet their statutory requirement in respect of capital reserves; therefore are less likely to create loan loss provisions, which are not subject to statutory mandated requirements (Forker and Ward, 2012).

RESULTS AND DISCUSSION

Multivariate analysis: Gender leadership

The results of OLS estimation investigating the association between credit union efficiency (financial performance), prudence (capital reserves) and loan book quality (provision for loan losses) and a female president (w_{1t}), interacted with location deprivation, and the control variables are reported in Table 7, Models 1, 3 and 5.

$$v_{it} = \alpha_0 + \alpha_1 w_{it} + \alpha_2 d_i + \alpha_{3i} w_{it} * d + \alpha_4 a_{it} + \alpha_5 s_{it} + \sum_{l=2002}^{2010} \alpha_l YEAR_i + u_{it}$$

The results of further analysis of gender diversity estimating the interaction effect of credit unions with female only presidents compared to those appointing male and female presidents and those with male only presidents (w_{2t}) are reported in Model 2, 4 and 6.

As is evident in Model 1 credit union performance has a negative association with the presence of a female president; however, credit unions in more deprived locations with female presidents have superior financial performance. Gender dominance is considered in Model 2. Consistent results emerge to those reported in Model 1, credit unions with female only presidents have statistically lower reported performance relative to male dominated boards; gender balanced (diversified) boards also reported statistically lower performance relative to male dominated boards but the difference is smaller. When deprivation is considered, consistent with Model 1, credit unions with females presidents performed better in more deprived areas.

Credit unions with female only presidents are less conservative than credit unions with male only presidents as depicted by the significant negative relationship (Model 3) between the dichotomised independent variable ‘Female president’ and capital reserve levels. However, though credit unions with female only presidents have significantly lower capital reserve levels, they have higher capital reserves levels in deprived areas. This pattern is repeated when the credit unions are categorised according to female dominance (Model 4), credit unions that have female only presidents or are gender balanced have lower capital reserve levels relative to credit unions that have male only leaders but a significant positive association exits for both when deprivation is interacted with the female dominance dichotomous variable. Finally, leadership gender has no association with the quality of the loan book as reported in Model 5. Consistent results are reported when gender dominance is substituted as the independent variable. As expected, a positive association between size and performance and a negative association between size and capital reserves and loan loss allowances are reported at the 1 percent level (Models 1 to 6). In addition, older credit unions have higher capital reserve levels as hypothesised (Model 3 and 4) and in all instances year effects are significant.

Insert Table 7

When social contribution is analysed in Table 8 significant differences in behaviour are apparent across gender. Credit unions with female presidents had higher levels of community spend; however, the relationship is reversed when deprivation is interacted with the female president variable (Model 1). Female presidents in more deprived areas retained more for members and gave less to society. When levels of gender dominance are examined a similar pattern emerges , credit unions with female only presidents and those that are gender balanced reported paying out statistically higher levels of social spend on the local community relative to credit union that are considered to have male only presidents. When deprivation is interacted with the female presidents, a difference in the community spend behaviour results between male influenced leadership and female influenced leadership in that female only credit unions in more deprived regions make lower levels of distributions to the local community.

Credit unions with female presidents use significantly higher levels of paid staff relative to those that have male presidents, though the association changes when deprivation is also considered as observations in more deprived areas with female presidents use lower levels of paid staff (hence more volunteering) relative to credit unions with male presidents in similarly deprived areas (Model 3). When the results are analysed according to gender dominance a significant difference in the level of wages reported result – credit unions that are categorised as female dominant and those with balanced leadership report higher levels of wage payments, relative to credit unions that are male influenced (Model 4). The results for the control variables are as anticipated, larger credit unions spend more on the external community and are less reliant on volunteers and older credit unions are less reliant on volunteers.

Insert Table 8 about here

CONCLUSION

The president of the board of directors is the most influential person in non-profit organisations. The president is in charge of governance, strategy and key decision-making. Information flows typically channel to the president and the president has influence over information flows to other board members and typically has the deciding vote on split board decisions. Recruiting the correct person for the role is important for the organisation and the local community. Previous research reports bias or a glass ceiling in non-profits resulting in a dominance of males in key leadership positions.

Resource dependency theory and gender economics predict a comparative advantage from female leadership in community-based organisations. The gender economy is changing, females are more involved in public life and less associated with private household economies (more accepted in public roles). In many countries protectionist practices have been removed, equal opportunities legislation enacted, government intervention and support is available and the result is a balancing of gender economics with an increasing number of women being educated, taking up employment and getting involved in public economies. However, the rate of change is not as fast as may have been anticipated, imbalances exist, particularly in leadership roles. This imbalance is of interest in community organisations, particularly in more deprived communities, where historically females have played an active role and have the skills and financial management experience from their households and experience within community projects to contribute to the financial management of community organisations.

The implicit assumption from prior literature is that the traditional male bias is detrimental to non-profit organisations and to communities. Yet few empirical studies have examined whether there is an association between female leadership and performance and social contribution. This study contributes to that gap. Using the Northern Ireland credit union sector as the study site, the dataset comprises 1,527 yearly observations obtained from the annual returns of all 184 credit unions in existence in Northern Ireland over the nine year period from 2002 to 2010. We find that males dominate the top leadership positions. In 79% of the years observed the president was male. However, we find that number and proportion of female presidents is increasing over time. We found a higher incidence of female leadership in deprived regions relative to more affluent regions.

When the data is interrogated to determine if gender had an influence on performance, a negative association is identified - credit unions with male presidents have higher returns from capital employed and higher capital reserve levels. However, in the more deprived regions credit unions with female presidents reported higher returns from capital employed and higher capital reserve levels relative to the reported returns and reserve levels in credit unions governed by male presidents. Consistent results were reported when a trichotomous variable representing male dominance (male only presidents), diversified dominance and female dominance (female only presidents) was substituted for the presidential dichotomous gender variable. Male dominated reported higher returns from capital employed and higher reserve levels relative to female dominated credit unions. Yet again the outcome is different when community deprivation is taken into consideration. In the more deprived regions female dominated credit unions report higher returns from capital employed and higher reserve levels relative to male dominated credit unions.

The performance of credit unions portraying a diversified gender culture is not statistically different to that reported for males except that higher capital reserve levels are evident in the more deprived locations. Credit unions with female presidents spend more on community social activities and employ more staff (use less volunteers). However, the results change when deprivation of the community is taken into consideration. Credit unions in more deprived regions with female presidents spend less on community social activities and make more use of volunteers. The findings are in general consistent with the view that females are more altruistic. The reverse results reported for more deprived regions may be a result of female leaders being more aware of the financial plight of credit union members who are less likely to appreciate an outflow of their resources to people who are not members. The higher incidence of volunteer involvement in female led credit unions maybe due to links with persons within the community who are available and likely to volunteer.

Previous research into volunteering has found that people are more likely to volunteer when asked (Freeman, 1997).

Though lessons can be learned from our study, its generalizability to other regions and other institutions is hampered by its limitations. Firstly the study focuses on one type of organisation in one region, credit unions in Northern Ireland. Credit unions are not homogenous. They are unique institutions that have a strong community self-help ethos, but are subject to national differences due to differing national public regulation and differing objectives emanating from differing self-regulatory bodies. Secondly, we only examine the gender characteristic of the president. Other potential influences on presidential success have not been considered such as their education (found to be linked to performance by Smith, Smith & Verner, 2006), previous experience or leadership style. Nevertheless, associations exist and the direction of these associations differs across locality deprivation. Females are more actively involved and more successful in their leadership roles in more deprived regions. The findings relating to the influence of community affluence are predicted by resource dependence theory. Community need and household financial need is greater in more deprived locations and females are better positioned than males to become involved in community activities. They typically have stronger network links within the community than males (school pick-ups, sporting events, charitable work, community projects), have better financial management skills (regardless of economic contribution to households females are typically in charge of family budgets and finances) and are more likely to be available (females are typically the second earners, hence are more likely to accept part-time work or volunteer positions). This means that in more deprived regions, females are more likely to have superior skills and availability relative to males when the pool of human resources from the locality is considered.

In more affluent areas the dynamics of communities is different. There is less financial exclusion, so the motivation for females who are in charge of household budgets to become involved is reduced. Household budgets are easier as there is less capital rationing, hence financial skills are not as developed and community networks are not as strong. There are less community projects and availability of transport (second car etc) means that females can select services within or outside the local community reducing the bond within the community as contact is reduced. This means that in more affluent regions, females are less able to compete with males for leadership roles as they do not have the links that are more developed by females in more deprived regions.

Though we find a predominance of male presidents in credit unions in Northern Ireland, we cannot state that this reflects male bias. Credit unions with male presidents have stronger financial and social performance in the more affluent areas, with the reverse being true in deprived communities. It would seem, from these results that, females in deprived regions have comparative advantage over males and in general, credit unions are recruiting the best persons for the top role. The data also suggests that the pool of eligible, qualified, available females is increasing as evidenced by the increasing number of female presidents each year. There is no evidence to support regulatory intervention to promote female access to leadership in credit unions in Northern Ireland.

REFERENCES

Abzug, R., Fletcher K. & Miller, J.L. 1999. *Perspectives on Non-Profit Board Diversity*, Washington: Board Source, www.boardsource.org, accessed June 2012.

Adams, R. & Funk, P., (2012) Beyond the Glass Ceiling: Does Gender Matter?, *Management Science*, 58(2), 219-235.

Andreoni, J. & Westerlund, L., (2001), which is the Fair Sex? Gender Differences in Altruism, *Quarterly Journal of Economics*, 116, 293-312.

Auster, E. R., (1993), Demystifying the Glass Ceiling: Organizational and Interpersonal Dynamics of Gender Bias, *Business and the Contemporary World*, 5, 47-68.

Carter, D., D'Souza, F, Simkins, B. & Simpson, G., (2010), The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance, *Corporate Governance: An International Review*, 18(5), 396-414.

Cox, J.C., & Deck, C.A., (2006), When are Women more Generous than Men? *Economic Inquiry*, 44(4), 587-598.

Croson, R & Gneezy, U., (2009), Gender Difference in Preferences, *Journal of Economic Literature*, 47(2), 1-27.

Damer, S. (1990), Glasgow: Going for a Song. London: Lawrence and Wishart.

Davis, P. S., Babakus, E., Englis, P.D., & Pett, T., (2010), The Influence of CEO Gender on Market Orientation and Performance in Small and Medium-Sized Service Businesses, *Journal of Small Business Management*, 48(4), 475-496.

DeSena, J. N., (1998), Low-Income Women and Community Power, *Sociological Spectrum*, 18, 311-332.

Eagly, A. H.,& Crowley, M., (1986), Gender and Helping Behaviour: A Meta-Analytic Review of the Social Psychological Literature, *Psychological Bulletin*, 100, 283-308.

Eagly, A. H., & Johnson, (1990), Gender and Leadership Style: A Meta-Analysis, *Psychological Bulletin*, 108, 223-256.

Eckel, C. C.,& Grossman, P.J. (1998), Are Women Less Selfish than Men? Evidence from Dictator Experiments, *Economic Journal*, 108, 726-735.

Erkut, S., Kramer, V. W. &Konrad, A. M., (2008), 'Critical Mass: *Does the Number of Women on a Corporate Board Make a Difference?*, in Vinnicombe, S., Singh, V., Burke, R., Bilimoria, D. & Huse, M. (eds), *Women in Corporate Boards of Directors: International Research and Practice* (Edward Elgar, London), 222-232.

Fiedler, F. E. (1967) *A Theory of Leadership Effectiveness*, New York: McGraw-Hill

Forker, J.J. & Ward, A.M. (2012). Prudence and Financial Self-Regulation in Credit Unions in Northern Ireland, *The British Accounting Review*, 44 (4), 221-235

Freeman, R. B., (1997), 'Working for Nothing: The Supply of Volunteer Labour', *Journal of Labour Economics*, *15,* 1, S140-S166.

Freeman, R. E. & Reed, D. L. (1983), Stockholders and Stakeholders: A New Perspective on Corporate Governance, *California Management Review*, 25(3), 88-106

Gibelman, M., (2000), The Nonprofit Sector and Gender Discrimination: A Preliminary Investigation into the Glass Ceiling, *Nonprofit Management and Leadership*, 10(3), 251-269

Gronbjerg, K., (1991), Managing Grants and Contracts: The Case for Four Nonprofit Social Service Organizations, *Nonprofit and Voluntary Sector Quarterly*, 20(1), 5-24.

Hale, M., (1999), He Says, She Says: Gender and Work Life, *Public Administration Review*, 59(5), 410-424.

Hall, V.G. (2004), Differing Gender Roles: Women in Mining and Fishing Communities in Northumberland, England, 1880-1914, *Women's Studies International Forum*, 27, 521-530.

Harrison, Y. D. & Murray, V., (2012), Perspectives on the Leadership of Chairs of Nonprofit Organization Boards of Directors: A Grounded Theory Mixed Method Study, *Nonprofit Management & Leadership*, 22(4), 411-437

Hart, O.,& Moore, J. 1996. The Governance of Exchanges: Members' Cooperatives versus Outside Ownership. *Oxford Review of Economic Policy*, 12(4), 53-69.

Hartarska V. & Nadolnyak, D., (2012), Board Size and Diversity as Governance Mechanisams in Community Development Loan Funds in the USA, *Applied Economics*, 44, 4313-4329.

Hays, F. Day, N, Belanus, S., (2012), Credit Union Performance: Does CEO Gender Matter?, Journal of Behavioural Studies in Business, 5, 1-14

Heimovics, R. D. & Herman, R. D., (1990), The Responsibility for Critical Incidents in Nonprofit Organisations. *Non-profit and Voluntary Sector Quarterly*, 19(1), 59-72.

Heimovics, R. D., Herman, R. D., & Jurkiewicz Coughlin, (1993), Executive Leadership, and Resource Dependence in Nonprofit Organizations: A Frame Analysis, *Public Administration Review*, 53(5), 419-427.

Hodgkinson, V. A. and Weitzman, M. S., (1993) cited in Gibelman (2000), *A Brief Look at Not-for-Profit Employment from the 1990 Census of Population and Housing*, Washington D. C.; Independent Sector.

Hodgkinson, V. A. and Weitzman, M. S., (1996) cited in Gibelman (2000), Nonprofit Almanac: *Dimensions of the Independent Sector 1996-1997*. Washington D. C., Independent Sector.

Jones P.A., (1999) *Towards Sustainable Credit Union Development*, Report of a national research project undertaken by Liverpool JMU, the Association of British Credit Unions Ltd, the English Community Enterprise Partnership and the Co-operative Bank and supported by the Local Government Association and the Local Government Management Board. ABCUL.

Jones P.A., (2001), *"The Growth Of Credit Unions And Credit Co-operatives – Is The Past Still Present?"* chapter in Mayo E and Guene C. Eds.*"Bankingand Social Cohesion. Alternative Responses to a Global Market"*, Jon Carpenter Publishing, Oxford.

Kamas, L., Preston, A., & Baum, S., (2008), Altruism in Individual and Joint-Giving Decisions: What's Gender got to do With it? *Feminist Economics*, 14(3), 23-50.

Konrad, A. M., Kramer, V. W. & Erkut, S., (2008), Critical Mass: The Impact of Three or More Women on Corporate Boards, *Organisational Dynamics*, 37(2), 145-164.

Kulich, C., Trojanowski, G., Ryan, M., Haslam, S & Renneboog, L., (2011), Who Gets the Carrot and Who Gets the Stick? Evidence of Gender Disparities in Executive Remuneration, *Strategic Management Journal*, 32, 301-321.

Lansford, M., Clements, V., Falzon, T., Aish, D. & Rogers, R., (2010), Essential Leadership Traits of Female Executives in the Non-Profit Sector, *The Journal of Human Resource and Adult Learning*, 6(1), 51-62.

Lawrence, P. & Lorsch, J. (1967), *Organization and Environment*, Boston: Harvard University Press.

Leavitt, J. (2003), Where's the Gender in Community Development?, *Signs*, 29(1), 207-231.

Ledwith, M., (2011), *Community Development: A Critical Approach* (2nd Edition), Policy Press, 248.

Little, J. & Jones, O., (2000), Masculinity, Gender and Rural Policy, *Rural Sociology*, 65, 621-639.

Luckerath-Rovers, M. (2011), Women on Boards and Firm Performance, *Journal of Management and Governance*, available online 02 Auguat 2011 at
http://link.springer.com/article/10.1007%2Fs10997-011-9186-1?LI=true#

Luis-Carnicer, P., Martínez-Sánchez, A., Pérez-Pérez, M. & Vela-Jiménez, M., (2008), Gender Diversity in Management: Curvilinear Relationships to Reconcile Findings, *Gender Diversity in Management: An International Journal*, 23(8), 583-597.

Marini, M. M. (1990), Sex and Gender: What do we Know?, Sociological Forum, 5(95), 95-120.

Matsa, D. A., & Miller, A.R., (2013), A Female Style in Corporate Leadership? Evidence from Quotas, American Economic Journal: *Applied Economics*, 5(3), 136-161.

McArthur, A., McGregor, A., & Stewart, R., (1993), Credit Unions and Low-Income Communities, Urban Studies, 30(2), 399-416.

McKillop, D.G., Briscoe, R., McCarthy, O. & Ward, M. (2003). Irish Credit Unions: Exploring the Gender Mix, *International Journal of Voluntary and Non-Profit Organisations*, 14(3), 339-358.

McKillop, D. G., Glass, C. & Ward, A. M. (2005). 'Cost Efficiency, Environmental Influences and UK Credit Unions, 1991 to 2001', *Managerial Finance*, 3, 72-86.

McKillop, D., Ward, A.M., & Wilson, J. 2010. *The good, the bad and the ugly: A discusion of the impact of regulatory reform on the UK credit union sector*. SATER (The Scottish Accountancy Trust for Education and Research). SATER. 53 pp.

McKinsey & Company. 2008. *Women Matter 2: Female Leadership, a Competitive Edge for the Future, France: McKinsey*, available from: http://www.mckinsey.com/Search.aspx?q=female%20leadership%20a%20competitive%20edge%20for%20the%20future, accessed December 2012.

Mezentseva, E., (2000), The Gender Economy: Theoretical Approaches, *Problems of Economic Transition*, 43(7), 20-37.

Mesch, D. J., Brown, M. S., Moore, Z. I. & Hayat, A. D., (2011), Gender Differences in Charitable Giving, International Journal of Nonprofit and Voluntary Sector Marketing, 16, 342-355.

Midgley, J., (2006), Gendered Economies: Transferring Private Gender Roles into the Public Realm through Rural Community Development, *Journal of Rural Studies*, 22, 217-231.

Mirvis, P. H., (1992), The Quality of Employment in the Nonprofit Sector: An Update on Employee attitudes in Nonprofits Versus Business and Government, *Nonprofit Management and Leadership*, 3(1), 23-41.

Moore, G. and Whitt, J. A., (2000), Gender and Networks in a Local Voluntary-Sector Elite, *Voluntas: International Journal of Voluntary and Nonprofit Organisations*, 11(4), 309-328.

Oakley, J.G., (2000), Gender-based Barriers to Senior Management Positions: Understanding the Scarcity of Female CEOs, *Journal of Business Ethics*, 27(4), 321-334.

Offerman, L. R. & Beil, C., (1992), Achievement Styles of Women Leaders and Their Peers: Toward an Understanding of Women and Leadership, *Psychology of Women Quarterly*, 16(1), 37-56.

O'Neill, M. (1994), the Paradox of Women and Power in the Nonprofit Sector: In T. Odendahl and M. O' Neill (eds.), *Women and Power in the Nonprofit Sector*, Jossey-Bass, San Francisco.

Parida, P. C. & Sinha, A. (2010), Performance and Sustainability of Self-Help Groups in India: A Gender Perspective, Asian Development Review, 27(1), 80-103.

Pfeffer, J., & Salancik, G.R. 1978.*The external control of organizations: a resource dependence perspective*. Harper and Row New York.

Preston, A. E. (1990). Women in the White Collar Nonprofit Sector: The Best Option or the Only Option? *Review of Economics and Statistics*, 72(4), 560-568.

Prouteau, L. & Tabariés, M., (2010), Female Leadership in French Voluntary Associations, *Voluntas*, 21, 497-524.

Pynes, J. E., (2000), Are Women Underrepresented as Leaders of Nonprofit Organisations, *Review of Public Personnel Administration*, 20(2), 35-49.

Rooney, P.M., Mesch D.J., Chin, W., & Steinberg, K., (2005), The Effects of Race, Gender and Survey Methodology on Giving in the U.S., *Economics Letters*, 86(2), 173-180.

Ryan, M. K.& Haslam, S. A. (2009), Glass Cliffs are not so Easily Scaled: On the Precariousness of Female CEO's Positions, *British Journal of Management*, 20, 13-16.

Shaiko, R. G., (1997), Female Participation in Association Governance and Political Representation: Women as Executive Directors, Board Members, Lobbyists, and Political Action Committee Directors, *Nonprofit Management and Leadership*, 8(2), 121-139.

Silverman, I. W., (2003), Gender Difference in Delay of Gratification: A Meta-Analysis, *Sex Roles*, 49(9-10), 451-463.

Smith, N., Smith, V., & Verner, M., (2006), Do Women in Top Management Affect Firm Performance? A Panel Study of 2,500 Danish Firms, *International Journal of Productivity and Performance Management*, 55, 569-593.

Swamy, A., Knack, S., Lee, Y. & Azfar, O., (2001), Gender and Corruption, Journal of Development Economics, 64(1), 25-55.

Tehrani, M. & White, C. S., (2003), Economic Development and Micro-Enterprises in Rural Communities: Are There Gender Differences?, *Journal of Business & Economics Studies*, 9(1), 26-41.

Themudo, N. S., (2009), Gender and the Nonprofit Sector, *Nonprofit and Voluntary Sector Quarterly*, 38(4), 663 – 683.

Torchia, M., Calabró, A., & Huse, M. 2011. Women Directors on Corporate Boards: From tokenism to Critical Mass, *Journal of Business Ethics*, 102, 299-317.

Tyson, L. 2003. *The Tyson Report on the Recruitment and Development of Non-Executive Directors*, London: London Business School.

United States Bureau of Statistics, (2005).

Vinnicombe, S., Singh, V., Burk, R. J., Bilimoria, D., & Huse, M. (eds) (2008), *Women on Corporate Boards of Directors, International Research and Practice*, Cheltenham: Edward Elgar.

Volger, C., (1994), Money in the Household. In: Anderson, M., Bechhofer, F., Gershuny, J., (Eds.), *The Social and Political Economy of the Household*. Oxford University Press, Oxford, 225-266.

Walby, S., (1999), Transformations of the Gendered Political Economy: Changes in Women's Employment in the United Kingdom, *New Political Economy*, 4(2), 195-213.

Wang, J., & Coffey, B.S., (1992), Board Composition and Corporate Philanthropy, *Journal of Business Ethics*, 11(10), 771-778.

Ward, A.M. & McKillop, D. G. 2005a. An Investigation into the Link Between UK Credit Union Characteristics, Location and their Success. *Annals of Public and Cooperative Economics*, 76(3), 461-489.

Ward, A.M. & McKillop, D.G. 2005b. The Law of Proportionate Effect: The Growth of the UK Credit Union Movement at National and Regional Level. *Journal of Business, Finance and Accounting*, 32 (9&10), 1827-1859.

Ward, A.M. & McKillop, D.G. 2010. 'Profiling: A Strategy for Successful Volunteer Recruitment in Credit Unions, *Financial Accountability and Management*, 26(4), 367-391.

Witte Garland, A., (1988), *Women Activists: Challenging the Abuse of Power*, Feminist Press at the City University of York, 176 pages.

Williams, R. J., (2003), Women on Corporate Boards of Directors and Their Influence on Corporate Philanthropy, *Journal of Business Ethics*, 42, 1-10.

Young, A.M. & Hurlic, D., (2007), Gender Enactment at Work: The Importance of Gender and Gender-Related Behaviour to Person-Organizational Fit Career Decisions, *Journal of Managerial Psychology*, 22(2), 168.

Table 1: Profile of the changes in Gender Orientation of the President of the Board of Directors in Credit Unions in Northern Ireland over the period 2002 to 2010

Year	Total observations[1]	Female presidents	% female presidents
2002	170	32	18.82
2003	157	27	17.20
2004	168	30	17.86
2005	168	32	19.05
2006	171	41	23.98
2007	171	41	23.98
2008	173	38	21.97
2009	176	38	21.59
2010	173	42	24.28
Total	**1527**	**321**	**21.02**

1. Differences in the number of credit union returns available in each year occurs due to credit union start-ups, mergers, closures and difficulties in determining the gender of the name on the annual return (No Mr/Mrs/Ms/Miss prefix and no full first name given).

Table 2: Deprivation measure analysed by president's gender

	Observations	Mean	Stdev	Median	Min	Max
	No.	%	%	%	%	%
Deprivation measure						
Male president	1,206	26.71	15.03	23.43	2.36	75.65
Female president	321	33.03	19.83	25.61	5.02	75.65
Total	*1,527*	*28.03*	*16.36*	*23.77*	*2.36*	*75.65*

Table 3: President's gender within Credit Unions in Northern Ireland during the period 2002 to 2010

President gender	Credit unions[1]	% of credit unions
Male only	112	60.87%
Gender diversified	59	32.06%
Female only	13	7.07%
	184	**100.0%**

1. The panel is not balanced, there are missing periods where the gender of the president could not be correctly identified and some credit unions emerged, merged or closed. Therefore the number of years is not standard for all credit unions. Of the 184 credit unions, 144 had 9 years of observation, 20 had 8 years, 4 had 7 years, 2 had 6 years, 4 had 5 years, 3 had 4 years, 1 had 3 years, 3 had two years and 3 had data for 1 year.

Table 5: Financial and social variables analysed by president's gender

	Number	Mean	Stdev	Median	Min	Max
	No.	%	%	%	%	%
Efficiency (ROCE%)						
Male president	1,206	4.50	2.20	4.67	-10.88	25.73
Female president	321	4.44	2.00	4.54	-3.89	13.23
Total	*1,527*	*4.49*	*2.16*	*4.63*	*-10.88*	*25.74*
Prudence (Capital reserve level)						
Male president	1,206	10.82	3.52	10.48	0.00	25.57
Female president	321	11.25	3.63	10.35	0.00	22.80
Total	*1,527*	*10.91*	*3.55*	*10.45*	*0.00*	*25.57*
Loan book quality (Provision level)						
Male president	1,156	3.50	4.11	2.09	0.00	34.12

Female president	302	2.84	4.83	2.11	0.00	19.92
Total	*1,458*[1]	*3.36*	*3.89*	*2.09*	*0.00*	*34.12*
Social Spend Ratio						
Male president	1,205	0.01	0.05	0.00	0.00	1.28
Female president	321	0.01	0.03	0.00	0.00	0.24
Total	*1,526*	*0.01*	*0.05*	*0.00*	*0.00*	*1.28*
Volunteer Proxy						
Male president	1,206	0.62	0.59	0.59	0.00	3.50
Female president	321	0.85	0.64	0.86	0.00	3.64
Total	*1,527*	*0.67*	*0.61*	*0.65*	*0.00*	*3.64*

1. In some instances that part of the credit union annual return had not been completed resulting in missing observations

Table 7: Estimating the relationship between financial management and leadership diversity and social deprivation.

Dependent variable	**Performance**		**Capital Reserves**		**Allowance for loan losses**	
	Model 1	**(Model 2)**	**Model 3**	**(Model 4)**	**Model 5**	**(Model 6)**
Observations	1,524	1,526	1,524	1,526	1,455	1,457
Constant	-2.63 (-2.71)**	-2.47 (-2.49)**	11.07 (4.48)**	11.22 (4.58)**	14.02 (5.39)**	13.75 (5.10)**
Female president	-0.75 (-2.15)*		-1.98 (-2.43)**		0.23 (0.32)	
Diversified leadership		-0.72 (-1.65)†		-1.69 (-1.82)†		0.45 (0.52)
Female president		-0.90 (-1.96)*		-3.01 (-1.68)†		0.04 (0.04)
Deprivation	-0.01 (-1.49)	-0.01 (-1.47)	-0.01 (-0.54)	-0.02 (-1.60)	0.02 (1.09)	0.04 (1.40)
Female president* deprivation	0.03 (2.30)*		0.07 (2.52)**		-0.03 (-1.30)	
Diversified leadership * deprivation		0.02 (1.44)		0.06 (2.53)**		-0.04 (-1.51)
Female president* deprivation		0.03 (1.93)†		0.12 (1.72)†		-0.06 (-1.29)
Size (Ln)	0.61 (6.48)**	0.60 (6.43)**	-0.72 (-3.29)**	-0.72 (-3.30)**	-0.88 (-3.76)**	-0.86 (-3.66)**
Age (Ln)	-0.19 (-0.90)	-0.18 (-0.84)	3.17 (6.43)**	3.20 (6.52)**	0.01 (0.03)	-0.01 (-0.01)
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.272	0.271	0.204	0.218	0.171	0.184

Robust t-statistics are in parentheses. Standard errors are adjusted for clustering
† p<0.1
* p<0.05
** p<0.01

$$v_{it} = \alpha_0 + \alpha_1 w_{it} + \alpha_2 d_i + \alpha_{3i} w_{it} * d + \alpha_4 a_{it} + \alpha_5 s_{it} + \sum_{l=2002}^{2010} \alpha_l YEAR_i + u_{it}$$

Where the dependent variable $v_{1,it}$ is return on assets; $v_{1,it}$ is the level of capital reserves; $v_{1,it}$ is the provision for loan losses; w_{it} is either a dichotomous variable coded 1 if president is female, or trichotomous for gender balance; d_i is an index of social deprivation; a_{it} is age, s_{it} is total assets and *YEAR* is a set of annual dummies.

Table 8: Estimating the association between social contribution,female leadership and social deprivation

	Model 1	(Model 2)	Model 3	(Model 4)
Dependent variable	**Social spend on the external community**		**Volunteer labour usage**	
Observations	1,523	1,525	1,524	1,526
Constant	-0.05 (-3.08)**	-0.06 (-3.18)**	-1.40 (-4.67)**	-1.56 (-5.68)**
Female president	0.03 (2.58)**		0.43 (3.67)**	
Diversified leadership		0.02 (1.73) †		0.39 (2.52)**
Female president		0.03 (2.39)*		0.62 (3.21)**
Deprivation	0.01 (1.55)	0.01 (1.39)	0.01 (1.16)	0.01 (1.31)
Female president* deprivation	-0.01 (-2.41)**		-0.01 (-1.74)*	
Diversified leadership * deprivation		-0.01 (-1.35)		-0.01 (-1.60)
Female president* deprivation		-0.01 (-1.94)*		-0.01 (-1.00)
Size (Ln)	0.01 (1.73) †	0.01 (2.01)*	0.08 (2.16)**	0.08 (2.50)**
Age (Ln)	0.01 (1.03)	0.01 (0.89)	0.28 (2.88)**	0.27 (2.85)**
Year effects	Yes	Yes	Yes	Yes
R-squared	0.051	0.051	0.252	0.268

Robust t-statistics are in parentheses. Standard errors are adjusted for clustering
† p<0.1
* p<0.05
** p<0.01

$$v_{it} = \alpha_0 + \alpha_1 w_{it} + \alpha_2 d_i + \alpha_{3i} w_{it} * d + \alpha_4 a_{it} + \alpha_5 s_{it} + \sum_{l=2002}^{2010} \alpha_l YEAR_i + u_{it}$$

Where the dependent variable $v_{1,it}$ is return on assets; $v_{1,it}$ is the level of capital reserves; $v_{1,it}$ is the provision for loan losses; w_{it} is either a dichotomous variable coded 1 if president is female, or trichotomous for gender balance; d_i is an index of social deprivation; a_{it} is age, s_{it} is total assets and *YEAR* is a set of annual dummies.

The Centre for Responsible Banking and Finance
RBF Working Paper Series
School of Management, University of St Andrews
The Gateway, North Haugh,
St Andrews, Fife,
KY16 9RJ.
Scotland, United Kingdom
http://www.st-andrews.ac.uk/business/rbf/

Recent RBF Working papers published in this Series

Fourth Quarter | 2015

15-011 **Neil Lee and Ross Brown:** Thin Markets and Innovative SMEs: the Demand and Supply of Bank Funding in UK Peripheral Regions.

15-010 **Rym Ayadi, Sami Ben Naceur, Barbara Casu and Barry Quinn:** Regulatory Compliance and Bank Performance.

Third Quarter | 2015

15-009 **Ross Brown, Suzanne Mawson, Alexander Rowe and Colin Mason:** Harnessing the Crowd: The Demand-Side Dynamics of Equity Crowdfunding in Nascent Entrepreneurial Ventures.

15-008 **Pejman Abedifar, Shahid Ebrahim, Philip Molyneux and Amine Tarazi:** Islamic Banking and Finance: Recent Empirical Literature and Directions for Future Research.

15-007 **Declan French and Donal McKillop:** The Impact of Household Overindebtedness on Physical and Mental Health.

15-006 **Ross Brown and Suzanne Mawson:** Targeted Support for High Growth Firms: Theoretical Constraints, Unintended Consequences and Future Policy Challenges.

Second Quarter | 2015

15-005 **John K. Ashton and Robert S. Hudson:** The Price, Quality and Distribution of Mortgage Payment Protection Insurance: A Hedonic Pricing Approach.

15-004 **Dimitris K. Chronopoulos, Claudia Girardone and John C. Nankervis:** Double Bootstrap Confidence Intervals in the Two-Stage DEA Approach.

University of St Andrews
Scotland's first university
600 YEARS
1413 – 2013