Women entrepreneurship enticed family prosperity - an empirical evaluation of performance of microenterprises under Kudumbashree mission in Kerala, India

S R, Shehnaz and S, Suresh Kumar

Dept of Commerce, TKM College of Arts Science, Kollam, Kerala, India, Dept of Commerce, TKM College of Arts Science, Kollam, Kerala, India

31 August 2017

Women Entrepreneurship enticed Family Prosperity– An Empirical evaluation of performance of microenterprises under Kudumbashree mission in Kerala, India

S.R. Shehnaz., Department of Commerce, TKM College of Arts and Science, University of Kerala, Kollam, Kerala, 691005, India

S. Suresh Kumar., Department of Commerce, TKM College of Arts and Science, University of Kerala, Kollam, Kerala, 691005, India

Abstract:

Kudumbashree, meaning the family's prosperity, is one of the flagship programmes of the Government of Kerala, centred on woman empowerment that has been successful in giving hope to millions of impoverished women and their families in Kerala. Kudumbashree considers micro enterprises as a growth engine that triggers development process. Besides improving the standard of living of the families, women empowerment can go a long way in building gender equality and social acceptance of labour in the community. This study focuses on review of the production, marketing, asset management, profitability, government support and women empowerment issues faced by the microenterprise units under Kudumbashree. The study, based on primary data obtained from 279 samples (93 each from three districts) in Kerala, the 100% literate state of India, using factor analysis revealed seven principal components that accounted for variations in performances of microenterprise units under Kudumbashree mission in Kerala.

Keywords: Kudumbashree, micro-enterprises, women empowerment, poverty alleviation, gender equality, family prosperity, financial inclusion, standard of living

1 Introduction

Integration of women development and their empowerment are inevitable for the development of any country. The crux of the poverty alleviation programmes lies in the generation of employment potential leading to income generation. The origin and growth of microenterprises can be traced to lack of employment opportunities and inadequate income generation.

India, one of the oldest civilizations in the world with a kaleidoscopic variety and rich cultural heritage, has been the cradle of age old civilizations such as the Indus Valley (Harappan) Civilisation traced back to 3300 BC to 1700 BC and The Vedic

Civilization between the 1500 BC and 500 BC on the Indo-Gangetic Plains of the Indian subcontinent. Generally referred to as the pre-Vedic and Vedic periods in Indian history, the predominant religion in ancient India was Hinduism, the roots of which are traced back to the Vedic period. The rich cultural heritage and the wealth embodied treasures invited invasions from time to time, the end of which witnessed an independent India free from the reign of British colonial empire. The combination of historical factors including the caste system, British occupation, cultural values, and Government regulations- have limited innovative entrepreneurship in India (Dana 2000). Ever since independence India has achieved all-round socio-economic progress during the last 70 years. According to the survey conducted by Central Statistics Organisation (CSO) and International Monetary Fund (IMF), India is one of the fastest growing economies in the world. Despite the tremendous progress, India has made, the economy has failed to achieve its goal in alleviation of poverty. The 21.9% of its people who still live in poverty[1] need to be brought into the mainstream to reap the benefits of economic growth by addressing the inequity in all dimensions and disadvantaged groups, especially Women—who "hold up half the sky"—empowered to take their rightful place in the socioeconomic fabric of the country [2]. Unemployment is one of the major hindrances in nation's journey to a developed economy. Women folk are the prime victims of poverty and unemployment.

Kerala, a small state at the south west tip of India, with roughly 2.76% (33,406,061 out of 1,210,193,422) of India's population as per 2011 census data, contributed only 3.78% of India's GDP in 2014-15[3]. It has achieved social and educational development comparable to most Western nations and has been acclaimed worldwide for its Kerala model of development though this achievement is not yet matched by industrial growth or economic development[4].

Kudumbashree, meaning the family's prosperity, is one of the flagship programmes of the Government of Kerala, the southernmost state of India. The programme is centred on woman empowerment and has been successful in giving hope to millions of impoverished women and their families in Kerala. Originally launched in 1998 for wiping out absolute poverty from the State, Kudumbashree is today one of the largest women-empowering projects in India. The programme, that has about four million members and covers more than half of the households in Kerala, has succeeded in addressing the basic needs of the less privileged women, providing them a more dignified and independent life.

---

[1] https://www.adb.org/countries/india/poverty

[2] http://www.worldbank.org/en/country/india/overview

[3] http://statisticstimes.com/economy/gdp-of-indian-states.php

[4]http://www.encyclopedia.com/international/encyclopedias-almanacs- transcripts-and-maps/kerala-model-development

The pattern of economic expansion and modernisation by the government was not enough to provide sufficient job opportunities for the entire labour force in India. In order to find out a remedy to the p333roblem of unemployment and also for eradicating poverty, an effective tool has been developed by the government i.e. Microenterprises. Kudumbashree views development of micro enterprises as an opportunity for providing gainful employment to the people below poverty line, thereby improving their income and standard of living. Kudumbashree considers micro enterprises as a growth engine that triggers development process. Through the operation of microenterprises, Kudumbashree cherishes the expectation that asset management ability of the poor women will increase along with their profit margin and wages. The Community Based Organization is the lifeblood of "Kudumbashree", which envisages women empowerment and gender equality.

Micro enterprises under Kudumbashree in Kerala contribute significantly to the development and growth of the economy in terms of employment and income generation. These enterprises play a great role in eradicating poverty at the grass root level in general and women in particular. Besides improving the standard of living of the families, women empowerment can go a long way in building gender equality and social acceptance of labour in the community. Therefore whether there is empowerment of women at all levels through operation of these institutions need to be probed into. The significance of the study lies on the understanding of the extent to which government support in establishing and operating micro enterprise units either as individual or as neighbourhood groups leads to women empowerment in terms of their asset management and decision making capability.

The following sections of this paper explores the extant literature before identifying the research gap, suggest methodology that is pursued and discusses results of exploratory factory factor analysis of 36 sub variables identified as six each from six main variables such as production problems, marketing problems, asset management problems, profitability problems, government support and women empowerment issues. Though the study in general envisages the review of overall improvement of income and employment generation of women folk in Kerala and the extent to which Kudumbashree project can ensure women empowerment, this paper addresses the following specific objectives.

i. To identify issues related to production, marketing, asset management, profitability, government support and women empowerment in microenterprises under Kudumbashree mission.

ii. To evaluate the principal components that underlies the issues in the above areas.

The existing literature, rich in women empowerment and women entrepreneurship, highlighted by the various methodologies of naturalistic enquiries into

entrepreneurial aspects seeks attention on the role of Government and its schemes oriented towards gender equality and women empowerment, especially in the emerging economies. The extent to which government support and women empowerment objective coupled with entrepreneurial abilities of women in micro enterprises, organised as individual or neighbourhood groups under Kudumbashree the family prosperity mission initiated by the State Government of Kerala in India, can bring about the social change in terms of gender equality and income generation thus becomes imperative.

2 Literature Review

The concept of development of women attained international significance after the first major U.N. Conference on women held in 1975. Micro enterprises are an important force for economic development and industrialisation in poor countries (Helmsing and Kolstee 1993; Mead and Liedholm 1998; Liedholm and Mead 1999; McIntyre and Dallago 2003).

Ratten (2016) in her paper tried to understand the role of female entrepreneurs who are intending to start an informal business by focusing on the role of knowledge and innovation. Her paper developed a number of research propositions based on drawings from prior research on female entrepreneurship and the informal economy, The paper proposes that innovation outcome expectation, customer knowledge development, risk averseness, polychronism and collectivism impact on the intention of female entrepreneurs to start informal businesses. The effect of innovation and knowledge was stressed in the form of outcome expectations and development. The paper concludes by suggesting that risk averseness is an important element for female entrepreneurs deciding to start an informal business. Her findings also shed light on the role of gender for informal entrepreneurship. However she proposes more research that is needed to generalise the research propositions proposed by her.

Faherty & Stephens (2016) explored the gap in literature on innovation practices in micro enterprises and explored three issues such as understanding of the term "innovation", innovation practice(s) and how innovation can be effectively measured. Innovation, though important to the development of the enterprises was not found to be a managed or systematic process, and they attribute it to lack of resources.

Welsh, Memili & Kaciak (2016) examined the impact of family moral support on Turkish women entrepreneurs' including major challenges (i.e. personal problems and recognition of poor managerial skills and knowledge) and advantages (i.e. perceptions of helpfulness of education and work experience). They used the same dichotomous independent variable (family support), measured at two levels, i.e. when moral support from the family member (spouse, child, parent, sibling, and/or a

relative) was acknowledged by a female entrepreneur and when it was not. They confirmed three hypotheses such as (i) the greater moral support women entrepreneurs receive from of their families, the more likely they are to experience personal problems (ii) the more likely they are to self-evaluate their management skills/knowledge as poor and (iii) the less likely they are to perceive previous work experience as helpful in their business activities. On the other hand, family moral support has no statistically significant effect on the likelihood was also established. Their findings showed that family moral support can have both positive and negative impact on Turkish women entrepreneurs.

Devika (2016), in her paper reflects women's presence in politics in Kerala where neo-liberalised welfare targets a very large number of women and inducts them into local governance. Her study offers a brief sketch of the shifts in the region in women's roles and responsibilities from the pre-liberalisation period to the 1990s in India and afterwards. The study probes the unintended consequences that the neo-liberalised welfare has generated and the possibilities thrown up by institutional change in women's self-help groups. She also attempts to view the commonalities and departures between the figure of the 'Kerala Model Woman', shaped in the laudatory literature on the 'Kerala Model' of development, and the emerging, apparently more troublesome, figure of the 'Kudumbashree woman'.

Kumar & Jasheena (2016), argue that women are the basic unit of the society and become more important as a long-term solution to a sustainable livelihood. Kerala, the only state in India that has attained a remarkable status, fulfilling all the criterion of various social well-beings compared with some of the developed countries in the world, widely known as the 'Kerala model of development', reflects this achievement in the literacy level of women, salary or wage structure of employment, technical and professional services and equality of women at par with men. Their research study conducted among the female entrepreneurs those who are actively participating in the Kudumbashree mission in Kerala aimed to explore the activities and influence of Kudumbashree and the way it stimulates women empowerment as well as female entrepreneurship.

Gërguri, Ramadani, Abazi-Alili, Dana., & Ratten (2015) investigated the impact of information communication technologies (ICT) and innovation activities on firm's performance using the Business Environment Enterprise Performance Survey (BEEPS) firm-level data in the three rounds. They found that the probability of the firm to undertake innovation activities has shown to enhance firm performance. This study implemented various estimations on BEEPS observations to test whether the change in the usage of ICT and other innovation determinants have increased the probability of firms to undertake innovation activities. The probit model results showed a significant effect of some of the innovation activities determinants, which are in accordance with the theoretical literature. Large firms in concentrated markets

are more advantageous in innovation. The positive and significant sign of the firm size supports this hypothesis, indicating that larger firms in transition economies tend to undertake more innovation activities than smaller ones.

Krishnan & Kamalnabhan (2015), identified the gap in limited emphasis on entrepreneurship within micro enterprises among the vast existing literature that entrepreneurship is a positive force which enhances employment generation and promotes new products and services to meet the needs and wants of their clients. They attempted to identify and assess entrepreneurial attitude orientation and competencies as well as skills among women entrepreneurs in micro enterprise leading to entrepreneurial success and ultimately life satisfaction using multivariate analysis technique like factor analysis and Structural Equation Modelling (SEM). They found that a direct relationship exists between entrepreneurial attitudes related constructs and entrepreneurial competencies related factors, leading to entrepreneurial success, and life satisfaction among micro entrepreneurs.

Paoloni & Dumay (2015) investigated how relational capital contributes to the start-up phase of women-owned micro-enterprises by resorting to a case study approach based on examining current events of real life in depth and nine cases of micro-enterprises run by women. They found a predominant use of networks characterised by informal and permanent relations, supporting the need to reconcile work and family and to involve relatives and friends in the network, which in their opinion emphasises the lack of strategy in the female-run micro-enterprises.

Ramadani, Dana, Gerguri and Tašaminova (2013) in their paper about women entrepreneurs in Macedonia, discusses conditions for female entrepreneurship, perspectives for development and an array of problems that women entrepreneurs are facing. They complement secondary sources with a survey conducted. Respondents were asked about motives for starting a business, the size of the business they run, revenues, their family status, management problems, and necessary capabilities as perceived by them. They used Global Entrepreneurship Monitor (GEM) reports to compare the indicators of entrepreneurial activity between Republic of Macedonia and other countries in the region. They found that women are motivated to undertake entrepreneurial career due to the existing possibility to realise substantial profit, desire to work exclusively for themselves and the desire and need to realise significant achievements throughout the career. In their opinion, women entrepreneurs are an important untapped resource within the business sector. They conclude that if we accept that entrepreneurship is important since it is the basis of development, then it should be proposed that entrepreneurship should be assisted by supportive government policies.

Lin & Chang (2011) aimed to understand the implications of the entrepreneurial competence in micro-enterprises through the analysis of entrepreneurial competence

in micro-enterprises as a multi-case study. The findings, divided by the construct implication of entrepreneurial competence in the abilities of six constructs in two levels for data analysis, proposes the practical implications of micro-enterprises management.

Wube (2010), assessed the factors that affect the performance of women entrepreneurs in Micro and Small Enterprises (MSEs). The study addressed the characteristics of women entrepreneurs in MSEs and their enterprises and the supports they acquire from Technical and Vocational Education and Training (TVET) colleges/institutes. Lack of own premises(land),financial access, stiff competition, inadequate access to training, access to technology and access to raw materials were found to be the key economic factors that affect the performance of women entrepreneurs in MSEs. Conflicting gender roles, social acceptability and network with outsiders were found to be the major social factors that affect these entrepreneurs, besides the legal and regulatory environment constraints in the form of access to policy makers, high amount of tax and interest, bureaucracies as well as red tapes. The study also found that even though TVETs provide technology, machine maintenance, technical skill training and facility supports, co operations in the areas of business related trainings are poor.

Dana and Dana (2005) in their paper intended to promote naturalistic inquiry; argues that qualitative/non-quantitative empirical data resulting from naturalistic inquiry can help researchers and policy makers to better understand entrepreneurship in the context of its environment. They attempted to borrow ideas from sociology, so as to adapt them to administrative sciences with the purpose of encouraging more qualitative research with holistic inductive designs and to complement the many quantitative studies in management. In contrast to the hypothetico- deductive approach which requires the specification of main variables prior to data collection, the effective qualitative researcher is inspired by investigating processes, interaction and context, never taking for granted the meanings of words, concepts or behaviour. The existing literature though rich in women empowerment and women entrepreneurship, highlighted by the various methodologies of naturalistic enquiries besides the ideas explored by current works on social sciences research, still heed the extent to which women entrepreneurship in micro enterprises can empower women in the society.

3 Research Method

The study covers those Kudumbashree units which are in operation currently. The primary data were collected from the members of Kudumbashree microenterprises units in the State of Kerala. The state of Kerala with 31261 microenterprises under Kudumbashree scheme is divided into three regions geographically as southern,

central and northern zones. Further, the districts with highest numbers of micro enterprises in each region are identified as Thiruvananthapuram in Southern zone, Ernakulam in Central Zone and Kozhikode in Northern Zone A sample size of 93 each, are selected randomly from each of the three districts, aggregating to 279 micro enterprises units. The sample size calculator available online was made use of to arrive at the sample size of 279 from population of three districts identified at 95% confidence level and a confidence interval of 10. Equal representation of the three districts is ensured and hence 93 each are selected randomly from the three districts identified.

A structured questionnaire was administered among the sample and responses obtained are subjected to factor analysis. The 6 main variables namely, production, marketing, asset management, profitability, government support and women empowerment problems comprising of 6 each sub variables, altogether constituting 36 sub variables are subjected to principal component analysis. Using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), respondents were asked to indicate the extent to which they agree that each of the attributes of the sub-variables identified from groups was an obstacle to Kudumbashree envisaged objectives.

4 Results

The descriptive statistics relating to the 36 sub variables pertaining to 6 main variables namely production, marketing, asset management, profitability, government support and women empowerment issues are shown in table 1.

The mean of the variables ranged between 0.7025 and 3.7527, while the standard deviation spanned over 0.6939 to 1.707.

To measure how suited the data is for Factor Analysis, the test that measures sampling adequacy for each variable in the model namely Kaiser-Meyer-Olkin (KMO) Test is applied. Similarly Bartlett's test is used to test if samples have equal variances. The results of un-rotated dimension reduction model's KMO test and Bartlett's test of Sphericity are shown in table 2.

The KMO measure stood at 0.958 which is considered to be a marvellous adequacy of sampling and the Bartlett's test used to test the null hypothesis that the batch variances are equal rejected the null hypothesis, at 5% significance level, since p value indicated as significance stood lower than 0.05. It may be concluded that at least one batch variance is different from the others.

The Cronbach's alpha, which is a coefficient of reliability, measuring how closely related the set of items are as a group is shown in table 3.

The alpha coefficient for the 36 items is .911, suggesting that the items have relatively high internal consistency. The 36 sub variables used in scale reliability analysis showed a mean of 123.44 with a standard deviation of 23.60 as is shown in table 4.

Since removal of any sub variables would not lead to any further increase in Cronbach's alpha, the factor analysis was continued without the removal of any items.

The correlation coefficients between variables in each group are reported separately. The variables that constitute the groups namely production, marketing, asset management, profitability, government support and women empowerment problems are shown as table A in appendix 1.

The variable namely power shortage reported a low correlation between all the other variables in the production problems group. The highest (0.815) correlation was found to exist between non availability of skilled labour and non availability of raw materials, while the lowest (0.669) was between lack of technology and lack of technical knowhow. In all the other cases it was near 0.70 except between power shortage and other variables within this group.

The variable namely limited geographical size of the market was found to be having a coefficient of correlation as low as zero and even negative between all the other variables in the marketing problems group. The highest (0.792) correlation existed between high pricing and inadequate promotion, while the lowest positive correlation (0.020) was between competition in the market and high pricing. In all the other cases it was near 0.70 except between limited geographical size of the market and other variables within this group.

Among the sub variables in Asset Management Problems, the highest (0.803) correlation was found to exist between low stock turnover and excessive credit allowed to customers, while the lowest positive (0.006) was between low stock turnover and non availability of credit from suppliers. Exceptionally low coefficients of correlation also existed between capital inadequacy and non availability of credit from suppliers (0.011), between non availability of credit from suppliers and unsupportive credit terms of suppliers (-0.024), between non availability of credit from suppliers and excessive credit allowed to customers (-0.046) and between non availability of credit from suppliers and long debt collection period (-0.023). In other cases it was near 0.70.

Among the sub variables in Profitability problems, except the excessive lease and rental charges as well as high interest on borrowings that showed low correlation to all the other variables in this group, the other coefficients of correlation among variables are significant though not substantial in all cases.

The highest (0.815) correlation, among sub variables in government support problems, existed between no overdraft facility for working capital and no subsidy to customers, while the lowest (0.090) was between no interest free long term financing and unnecessary formalities for setting up. Significantly low correlations were found to exist between no interest free long term financing and all the other variables pertaining to government support.

Among the women empowerment issues, the highest (0.124) correlation existed between reduces poverty/ enhances employment opportunities and increases confidence in personal, family and social dealings, while the lowest (-0.009) was between reduces poverty/ enhances employment opportunities and feels empowered due to high interpersonal skills. In all the case of women empowerment issues, the correlations between sub variables were significantly low.

The results of unrotated factor analysis based on Eigen values above 1, extracted 7 factors, the results of which are summarised in table 5. It was observed that these 7 principal components identified as factors together account for 70.98% of the variability in the performances of micro enterprise units under Kudumbashree mission in Kerala. While the first factor with an Eigen value of 14.13 explains 39.25% of the variations in performance of microenterprise units under Kudumbashree mission in Kerala, the second factor explains 15.867%, the third, fourth, fifth, sixth and seventh factors explain only a meagre 3.59, 3.38, 3.10, 2.98 and 2.81% of variations, respectively, in performances. The extraction sums of squared loadings disclose a cumulative of 70.98% of variances.

The component matrix before factor rotation is shown as table 6. Only loadings above 0.40 were considered and except two sub variables namely enhances social participation and acceptance as well as no interest free long term financing, which have negative loadings, all the other sub variables loaded into factors with positive loadings above 0.40. The sub variables that load into factor 1 showed loadings ranging over 0.851 to 0.924, while that in factor two ranges over 0.863 to .914. The rest of the four factors extracted showed loadings ranging between 0.670 and 0.422 except the negative loadings of the above mentioned sub variables.

The results of explanation of variances after applying Varimax orthogonal rotation are shown in table 7. It could be noted that, though the cumulative percentage of variances explained by 7 factors before and after rotation remained at 70.976, the percentage of variation explained by each factor has changed though not substantially. While the percentage share of the first 4 factors diminished, that of the last 3 factors had increased.

Table 8 shows the component matrix after the application of Varimax rotation. Except the sub variable namely no interest free long term financing from the main variable group of government support, all other sub variables loaded in the 7 factors

with greater than 0.30 loadings. The factor one loadings ranged over 0.922 to 0.853, while factor 2 loadings spanned over 0.914 to 0.864. The rest of the factor showed loadings between 0.853 and 0.359, with the exception of loading on sub variable, no interest free long term financing, which showed a negative loading of -0.468.

The component transformation matrix is shown in table 9.

The original factor or component loadings are transformed to the rotated loadings by post-multiplying the matrix of original loadings by the transformation matrix.

Depending on the nature of the sub variables that loaded into each of the factor, the factors were named as follows

4.1 Firm Related Problems

All the 18 sub variables that load into factor 1 pertained to production, marketing, asset management and profitability problems which were the major variables other than the government support and women empowerment problems. Hence these sub variables together constituting first factor is appropriately termed “Firm Related Problems”. This factor accounts for the 39.126% of the variations in performances of microenterprise units operating under Kudumbashree mission in Kerala.

4.2 External Environmental Issues

The 7 sub variables that load into factor 2 consist of 5 from main variable government support and one each from marketing and asset management problems. All these variables are beyond the control of the firm and are hence termed “External Environment related Issues”. The second factor accounts for a 15.83% of variations in performances of microenterprise units under Kudumbashree mission in Kerala.

4.3 Economic Empowerment Induced Confidence

The two sub variables that load into third factor are increased confidence in dealings and reduce poverty through employment generation. Such confidence in personal, family and social dealings induced by income generation through employment opportunities provided by Kudumbashree units is hence termed as “Economic Empowerment induced Confidence”. Factor 3 alone accounts only for 3.493% of variations in performances of microenterprise units under Kudumbashree missions in Kerala.

4.4 Conflict Management

The three sub variables that load into fourth factor are enhanced ability to deal with adverse issues, high interest on borrowings and power shortage. Since three sub variables share the common nature of sailing against odds, it has been aptly termed “Conflict Management”. This factor, by itself, accounts only for 3.31% of variations in performance of microenterprise units under Kudumbashree missions in Kerala.

4.5 Uncontrollable Premises

While two sub variables namely excessive lease rent and limited geographical size of the market load positively into fifth factor, one sub variable namely no interest free long term financing by government loads negatively into it. Since the firm can literally exercise no control over such things this factor is named “Uncontrollable Premises”. This factor, by itself, accounts only for 3.13% of variations in performance of microenterprise units under Kudumbashree missions in Kerala.

4.6 Social Empowerment

The two sub variables that load positively into the sixth factor are improves economic independence and financial literacy as well as enhances social participation and acceptance. The economic independence attained through the micro enterprise units was hence attributable to their enhanced social participation and acceptance which identifies this factor “Social Empowerment”. This factor alone can account only for 3.09% of variations in performance of microenterprise units under Kudumbashree missions in Kerala.

4.7 Leadership Initiative

The only sub variable that load into the seventh factor is enhances leadership skills and decision making capability. The factor is thus named “Leadership Initiatives” which, by itself, accounts only for 2.994% of variations in performance of microenterprise units under Kudumbashree missions in Kerala.

The specified principal component analysis was subjected to goodness of fit test and the results are summarised as table 10.

The discrepancy referred to in the above table is the chi square test, relative chi square, and RMS. The criterion for acceptance varies across researchers, ranging from less than 2 (Ullman, 2001) to less than 5 (Schumacker & Lomax, 2004). In this case the discrepancy stood at 0.15, well below 2, making it an acceptable indicator of the validity of the model. RMSR is an absolute measure of fit. As the square root of a variance, RMSR can be interpreted as the standard deviation of the unexplained variance, and has the useful property of being in the same units as the response variable. Lower values of RMSE indicate better fit. The root mean square residuals RMSR should be less than 0.08 (Browne & Cudeck, 1993) and ideally less than 0.05 (Stieger, 1990). In the case of this model under consideration, the root mean square residuals RMSR was only 0.015 which is far below the conservative limit of 0.05, which again highlights the validity of the model specified.

Analysis of incremental fit indices revealed that Bollen Relative (RFI) values were very close to 1, which indicated a very good fit. Similarly, yet another incremental fit index namely Bentler- Bonnet Normed Fit Index (NFI) also showed a value very close to 1, the criterion of acceptance of which states that any Normed Fit Index

(NFI) exceeding 0.90 makes the model acceptable. With all the relative and incremental fit indices indicating a good fit of the model, the results of factor analysis are validated.

5 Conclusion

Six sub variables each, relating to the 6 main variables such as production, marketing, asset management, profitability, government support and women empowerment problems were subjected to factor analysis and seven principal components altogether explaining 70.976% of variations in performances of microenterprise units under Kudumbashree mission in Kerala are extracted. The factor analysis conducted on 36 sub variables revealed that the mean of the variables ranged between 0.7025 and 3.7527, while the standard deviation spread over 0.6939 and 1.707. The Kaiser-Meyer-Olkin (KMO) Test of sampling adequacy stood at .958, which being very close to 1 indicated a marvellous adequacy of sampling. The Bartlett's test of sphericity rejected the null hypothesis, that the batch variances are equal, at 5% significance level. The reliability test of Cronbach's alpha showed a coefficient of 0.911, which indicated that the items have relatively high internal consistency.

Seven principal components altogether explaining 70.976% of variations in performances were extracted before rotation of factors. The sub variables that loaded into factor 1 showed loadings ranging over 0.851 to 0.924, while that in factor two ranged over 0.863 to .914. The rest of the four factors extracted showed loadings ranging between 0.670 and 0.422 except the negative loadings of two sub variables.

The application of orthogonal Varimax rotation also yielded 7 principal components that altogether explain 70.976% of variations in performances. However, only one variable loaded negatively in factor after rotation.

All the 18 sub variables that loaded into factor 1, is appropriately named as "Firm Related Problems". This accounts for the 39.126% of the variations in performances. The 7 sub variables that load into factor 2, is termed "External Environmental Impact". It accounts for a 15.83% of variations in performances. The two sub variables that load into factor 3, is termed as "Economic Empowerment induced Confidence". It accounts only for 3.493% of variations in performances. The three sub variables that load into factor 4, is termed "Conflict Management". It accounts only for 3.31% of variations in performance. The three sub variables that load into factor 4 (1 negatively and the rest positively), is termed "Uncontrollable Premises". This factor, by itself, accounts only for 3.13% of variations in performance. The two sub variables that load positively into the sixth factor have been named "Social Empowerment". This factor alone can account only for 3.09% of variations in performance. The only sub variable that loads into the seventh factor is termed

“Leadership Initiatives” and it accounts only for 2.994% of variations in performance of microenterprise units.

The model evaluation in terms of goodness of fit test revealed that both absolute fit indices and incremental fit indices highlighted very high levels of acceptable validity and good fit.

This paper thus identifies firm related problems and external environmental impact as principal components that underline variations in performances of microenterprises under Kudumbashree mission, in the southernmost state of India, namely Kerala. This firm related weakness points out the need to provide advanced management training which could enable Kudumbashree workers to better manage their assets which in turn can improve profitability and lead to higher economic independence and empowerment. Since these firm related problems are interconnected, proper planning and timely intervention by nodal agencies responsible for the performances of microenterprise units under Kudumbashree mission is the only possible way out. Once again the necessity of training programs that can enhance leadership skills and decision making in managing assets is underlined for the empowerment of women.

Table 1 Descriptive Statistics

No	Sub- Variables	Mean	Std.
1	Power Shortage	3.0179	1.34767
2	Non Availability of Skilled Labour	3.6380	1.21507
3	Shortage f Working Capital	3.5771	1.43453
4	Lack of Technology	3.6165	1.37287
5	Non Availability of Raw Materials	3.6846	1.26412
6	Lack of Technica Knowhow	3.5699	1.31180
7	Competetion in the Market	3.5556	1.27071
8	Limited Geographical size of the market	3.6380	1.01151
9	Weakness of the Products	3.5376	1.39030
10	High Pricing	3.7527	1.39879
11	Incapable Physical distribution Network	3.5269	1.32972
12	Inadequate Promotion	3.6057	1.41756
13	Capital Inadequacy	3.5376	1.25714
14	Low stock Turnover	3.6057	1.35263
15	Non Availability of Credit	3.5699	1.31180
16	Unsupportive Credit Terms	3.6129	1.26405
17	Excessive Credit allowed to Customers	3.6989	1.34741
18	Long DEbt Collection Periods	3.7276	1.29094
19	High Cost of Production/ Goods Sold	3.6165	1.42683
20	Low Gross Profit Margin	3.63441	1.278924
21	High Overheads	3.5735	1.36271
22	High Interest on Borrowings	2.9677	1.46262
23	Returns fail to Commensute Investments	3.7419	1.32684
24	Inadequate support from Banks	.8674	1.70705
25	No Interest free Long Term Financing	.7025	1.45966
26	No Overdraft Facility for WC	1.8602	.79916
27	No Subsidy on Interest Payments	1.7670	.69390
28	Unnecessary formalities for setting up	.7491	1.52726
29	No Subsidy to Customers	3.1470	1.44064
30	Lack of Training Programs to improve managerial and technical	2.9713	1.44910
31	Reduces Poverty and enhances employment opportunities	3.0323	1.42272
32	Improves economic independence and finacial literacy	3.0609	1.40139
33	Enhances social participation and acceptance	3.5556	1.27071
34	Increases Confidence in personal, family and social dealings	3.5376	1.39030
35	Enhances Leadership skills and decision making	3.0502	1.40822
36	Enhanced Ability in dealing with Adverse Issues	2.9570	1.36961

Table 2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling		.958
Bartlett's Test of Sphericity	Approx. Chi-Square	8674.763
	df	630
	Sig.	0.000

Table 3 Reliability Statistics

Cronbach's Alpha	.911
N of Items	36

Table 4 Scale Statistics

Mean	Variance	Std. Deviation	N of Items
123.44803	557.306	23.607324	36

Table 5 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of	Cumulative	Total	% of Variance	Cumulative %
1	14.130	39.249	39.249	14.130	39.249	39.249
2	5.712	15.867	55.116	5.712	15.867	55.116
3	1.291	3.585	58.701	1.291	3.585	58.701
4	1.217	3.380	62.082	1.217	3.380	62.082
5	1.117	3.103	65.185	1.117	3.103	65.185
6	1.074	2.984	68.169	1.074	2.984	68.169
7	1.010	2.807	70.976	1.010	2.807	70.976
8	.983	2.731	73.707			
9	.946	2.628	76.334			
10	.907	2.520	78.854			
11	.878	2.438	81.292			
12	.862	2.393	83.685			
13	.830	2.305	85.990			
14	.446	1.239	87.229			
15	.387	1.074	88.303			
16	.359	.998	89.302			
17	.329	.914	90.216			
18	.306	.851	91.067			
19	.288	.800	91.867			
20	.262	.729	92.596			
21	.258	.716	93.312			
22	.243	.675	93.988			
23	.219	.608	94.596			
24	.209	.581	95.176			
25	.203	.565	95.741			
26	.180	.500	96.241			
27	.179	.497	96.738			
28	.172	.478	97.216			
29	.160	.445	97.661			
30	.157	.436	98.097			
31	.137	.381	98.477			
32	.130	.361	98.838			
33	.129	.358	99.196			
34	.110	.306	99.503			
35	.102	.284	99.787			
36	.077	.213	100.000			

Extraction Method: Principal Component Analysis.

Table 6 Component Matrix

No	Sub Variables	Component						
		1	2	3	4	5	6	7
1	High Pricing	.924						
2	Shortage of Working Capital	.904						
3	Non Availability of Skilled Labour	.901						
4	High Cost of Production/ Goods Sold	.899						
5	Returns fail to Commensurate Investments	.899						
6	Excessive Credit allowed to Customers	.896						
7	Inadequate Promotion	.896						
8	Capital Inadequacy	.888						
9	High Overheads	.883						
10	Weakness of the Product	.881						
11	Low stock Turnover	.881						
12	Unsupportive Credit Terms	.872						
13	Non Availability of Raw Materials	.869						
14	Lack of Technical Knowhow	.867						
15	Lack of Technology	.867						
16	Competetion in the Market	.861						
17	Low Gross Profit Margin	.858						
18	Long Debt Collection Periods	.851						
19	No Overdraft Facility for Working Capital		.914					
20	Non Availability of Credit		.912					
21	Incapable Physical distribution Network		.905					
22	No Subsidy on Interest Payments		.904					
23	No Subsidy to Customers		.889					
24	Lack of Training Programs to improve skills		.880					
25	Unnecessary formalities for setting up		.863					
26	Increases Confidence in dealings			.579				
27	Enhances social participation and acceptance			-.529				
28	Reduces Poverty			.523				
29	Power Shortage				.549			
30	High Interest on Borrowings				.484			
31	Limited Geographical size of the market				.422			
32	No Interest free Long Term Financing					-.456		
33	Improves economic independence and finacial literacy					.444		
34	Enhanced Ability in dealing with Adverse Issues						.558	
35	Enhances Leadership skills and decision making							.670
36	Excessive Lease Rent							.427
	Extraction Method: Principal Component Analysis.							
	7 components extracted.							

Table 7 Total Variance Explained (After Varimax Rotation)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of	Cumulative	Total	% of Variance	Cumulative %	Total	% of	Cumulative %
1	14.130	39.249	39.249	14.130	39.249	39.249	14.0854	39.126	39.126
2	5.712	15.867	55.116	5.712	15.867	55.116	5.69882	15.830	54.956
3	1.291	3.585	58.701	1.291	3.585	58.701	1.25734	3.493	58.449
4	1.217	3.380	62.082	1.217	3.380	62.082	1.19175	3.310	61.759
5	1.117	3.103	65.185	1.117	3.103	65.185	1.12757	3.132	64.891
6	1.074	2.984	68.169	1.074	2.984	68.169	1.11257	3.090	67.982
7	1.010	2.807	70.976	1.010	2.807	70.976	1.07779	2.994	70.976
8	.983	2.731	73.707						
9	.946	2.628	76.334						
10	.907	2.520	78.854						
11	.878	2.438	81.292						
12	.862	2.393	83.685						
13	.830	2.305	85.990						
14	.446	1.239	87.229						
15	.387	1.074	88.303						
16	.359	.998	89.302						
17	.329	.914	90.216						
18	.306	.851	91.067						
19	.288	.800	91.867						
20	.262	.729	92.596						
21	.258	.716	93.312						
22	.243	.675	93.988						
23	.219	.608	94.596						
24	.209	.581	95.176						
25	.203	.565	95.741						
26	.180	.500	96.241						
27	.179	.497	96.738						
28	.172	.478	97.216						
29	.160	.445	97.661						
30	.157	.436	98.097						
31	.137	.381	98.477						
32	.130	.361	98.838						
33	.129	.358	99.196						
34	.110	.306	99.503						
35	.102	.284	99.787						
36	.077	.213	100.000						

Extraction Method: Principal Component Analysis.

Table 8 Rotated Component Matrix

No		Component						
		1	2	3	4	5	6	7
1	High Pricing	.922						
2	Shortage of Working Capital	.903						
3	Non Availability of Skilled Labour	.900						
4	Returns fail to Commensurate Investments	.899						
5	Excessive Credit allowed to Customers	.898						
6	High Cost of Production/ Goods Sold	.897						
7	Inadequate Promotion	.897						
8	Capital Inadequacy	.887						
9	Low stock Turnover	.882						
10	High Overheads	.882						
11	Weakness of the Products	.881						
12	Unsupportive Credit Terms	.869						
13	Non Availability of Raw Materials	.868						
14	Lack of Technology	.867						
15	Lack of Technical Knowhow	.863						
16	Competetion in the Market	.862						
17	Low Gross Profit Margin	.857						
18	Long Debt Collection Periods	.853						
19	No Overdraft Facility for WC		.914					
20	Non Availability of Credit		.914					
21	Incapable Physical distribution Network		.905					
22	No Subsidy on Interest Payments		.903					
23	No Subsidy to Customers		.891					
24	Lack of Training Programs to improve skills		.879					
25	Unnecessary formalities for setting up		.864					
26	Increases Confidence in dealings			.668				
27	Reduces Poverty			.604				
28	Enhanced Ability in dealing with Adverse Issues				.646			
29	High Interest on Borrowings				.638			
30	Power Shortage				.526			
31	Excessive Lease Rent					.801		
32	No Interest free Long Term Financing					-.468		
33	Limited Geographical size of the market					.388		
34	Improves economic independence and finacial literacy						.688	
35	Enhances social participation and acceptance						.359	
36	Enhances Leadership skills and decision making							.853
	Extraction Method: Principal Component Analysis.							
	a. Rotation converged in 11 iterations.							

Table 9 Component Transformation Matrix

Component	1	2	3	4	5	6	7
1	.998	.012	-.007	.052	-.001	-.011	-.022
2	-.011	.998	-.023	-.015	-.017	-.011	.045
3	-.002	.010	.905	.155	-.209	-.309	.134
4	-.047	.025	-.069	.754	.540	-.287	-.226
5	.015	.006	.289	.072	.486	.723	.391
6	-.018	-.031	-.266	.567	-.535	.109	.556
7	.024	-.038	-.148	-.280	.378	-.537	.683

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Table 10 Goodness-of-fit Summary

	Model	Independence	Saturated
Parameters	267	36	666
Degrees-of-freedom	399	630	---
Parsimony ratio	0.63333	1	---
Absolute Fit Indices			
	Model	Independence	Saturated
Discrepancy	0.15618	104.5237	0
Root mean sq. resid. (RMSR)	0.01575	0.407321	0
Incremental Fit Indices			
	Model		
Bollen Relative (RFI)	0.99764		
Bentler-Bonnet Normed (NFI)	0.99851		

References:

Dana, L. (2000). Creating entrepreneurs in India. Journal of Small Business, 86–92. Retrieved from http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Creating+Entrepreneurs+in+India#0

Dana, L.P. and Dana, T.E. (2005) 'Expanding the scope of methodologies used in entrepreneurship research', Int. J. Entrepreneurship and Small Business, Vol. 2, No. 1, pp.79–88.

Devika, J. (2016). The ‘Kudumbashree Woman’ and the Kerala Model Woman: Women and Politics in Contemporary Kerala. Indian Journal of Gender Studies, 23(3), 393–414. https://doi.org/10.1177/0971521516656077

Faherty, U., & Stephens, S. (2016). Innovation in micro enterprises: reality or fiction? Journal of Small Business and Enterprise Development, 23(2), 349–362. https://doi.org/10.1108/JSBED-11-2013-0176

Gërguri, S., Ramadani, V., Abazi-Alili, H., Dana, L.-P., & Ratten, V. (2015). ICT, innovation and firm performance: the transition economies context. *Thunderbird International Business Review*. doi:10.1002/tie.21772

Helmsing, A. and Kolstee ed. 1993., Small Enterprises and Changing Policies: Structural Adjustment, Financial Policy and Assistance Programmes in Africa, IT Publications, London.

Krishnan, L., & Kamalnabhan, T. J. (2015). Success and life satisfaction among women entrepreneurs in micro enterprises. In Entrepreneurial Ecosystem: Perspectives from Emerging Economies(pp. 351–372). Springer India. https://doi.org/10.1007/978-81-322-2086-2_15

Kumar, A., & Jasheena, C. J. (2016). Kudumbashree: Promoting the self-help group model of empowerment through women entrepreneurship in Kerala - a study. Prabandhan: Indian Journal of Management, 9(6), 20–34. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-84973548695&partnerID=40&md5=92cf5ffad03338636c631cd833f019c5

Liedholm and Mead (1999)., Small Enterprises and Economic Development: The Dynamics of Micro and Small Enterprises, Psychology Press, Hove, United Kingdom.

Lin, S.-J., & Chang, H.-J. (2011). A study of entrepreneurial competence in micro-enterprises. Journal of International Management Studies, 6(3), 1–8. Retrieved from http://www.jimsjournal.org/8 Szu-Ju Lin.pdf

McIntyre**,** R. and Dallago, B., Small and Medium Enterprises in Transitional Economies, Palgrave Macmillan, UK

Mead, D. C., & Liedholm, C. (1998)., The dynamics of micro and small enterprises in developing countries. World Development, 26(1), 61–74. https://doi.org/http://dx.doi.org/10.1016/S0305-750X(97)10010-9

Paoloni, P., & Dumay, J. (2015). The relational capital of micro-enterprises run by women: the startup phase. Vine, 45(2), 172–197. https://doi.org/10.1108/VINE-01-2014-0003

Ramadani, V., Dana, L-P., Gerguri, S. and Tašaminova, T. (2013) 'Women entrepreneurs in the Republic of Macedonia: waiting for directions', Int. J. Entrepreneurship and Small Business, Vol. 19, No. 1, pp.95–121.

Ratten, V. (2016) 'Female entrepreneurship and the role of customer knowledge development, innovation outcome expectations and culture on intentions to start informal business ventures', Int. J. Entrepreneurship and Small Business, Vol. 27, Nos. 2/3, pp.262–272.

Welsh, D. H., Memili, E., & Kaciak, E. (2016). An empirical analysis of the impact of family moral support on Turkish women entrepreneurs. *Journal of Innovation & Knowledge, 1*(1), 3–12.

Wube, M. (2010). Factors Affecting The Performance of Women Entrepreneurs in Micro and Small Enterprises (The Case of Dessie Town). International Journal of Business and Management Invention, 3(4), 67–69.