UNIVERSITI PUTRA MALAYSIA

EFFECTS OF AGRICULTURAL CREDIT AND MICROFINANCE ON EXPENDITURE PATTERNS IN YEMEN

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By

ADNAN ASANOY

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

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UPM

Dedication

To

The people who suffer from poverty through out the world and struggle to survive

And

To

The people who sacrifice and struggle for the peace and welfare of the poverty-stricken part of the world population

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

THE EFFECTS OF AGRICULTURAL CREDIT AND MICROFINANCE ON EXPENDITURE PATTERNS IN YEMEN

By

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May 2004

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Faculty : Agriculture

Poverty is a core problem in the Yemeni economy. About 47 percent of the total population lives below the poverty level. Moreover, the rapidly increasing population causes competition at meeting basic needs. From the macro economic point of view, Yemen also experiences unemployment problem and other socially adverse phenomena that contribute to low GDP. The economy of Yemen is vitally dependent on the growth of the rural economy, too. The majority of the people live in the rural areas. Due to the fact and the present socio-economic structure, the national and economic development of Yemen has been adversely affected. In order to meet the poverty crisis, the government of Yemen reformed its economic policy and undertook a small-scale credit program. Under this reformation, the National Agricultural Bank of Yemen has introduced agricultural credit and microfinance programs in mid 1980's and 1990's respectively. At present, the programs have progressed and could be evaluated for its success towards the aim of reducing poverty.

The present study attempts to evaluate the effectiveness of introducing small-scale credit towards better livelihood of the beneficiaries. Using econometric modeling, the study focused on the living standard of the beneficiaries. To examine the effectiveness accurately, a non-beneficiary group was also studied. By comparing two groups of respondents namely, "with credit" and "without credit", the study attempted to portray the effectiveness of the program. The sample size in this study was 540. A total of seven governances were selected for data collection. Simple random sampling procedure was used to select the respondents from the sampling frame. The study used Extended Linear Expenditure System (ELES) to estimate the poverty line and the living standard based on the socio-economic attributes of the respondents. In ELES, a demand system for food and non-food items was used. The impact of credit was measured by incorporating a dummy variable representing the 'with-without' group into the model.

The study extended its investigation further by carrying out a logistic regression analysis to determine the borrowers' preference between the two programs based on the socio-economic attributes. The dependent variable of the model was dichotomous namely, microfinance or otherwise. 'Otherwise' includes the respondents who preferred agricultural credit.

The results showed that there was a significant effect of socio economic variables and other factors on the expenditure of different food and non-food items. Education and family size showed significant contribution to the total expenditure. Dummy 'with-without' credit was found significant, too. This indicated that there

was a significant effect of small-scale credit program on the demand of food and non-food items. The standard of living of 'with-credit' group was found higher than that of 'without-credit' group. Logistic regression analysis showed that the respondents preferred microfinance. Income, education and family size were found to significantly determine the preferences for credit.

Based on the findings of the study, it is recommended that further extension of credit programs to the other poor governances of Yemen would be able to enhance the socio economic status of the people. Input supports, low interest rate, reformation of repayment structure are required to be reviewed for further development of policy.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

KESAN KREDIT PERTANIAN DAN KREDIT MIKROKEWANGAN KE ATAS BENTUK POLA PERBELANJAAN DI YEMEN

Oleh

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Kemiskinan adalah satu beban yang berat kepada Yemen. Lebih kurang 47 peratus daripada penduduk Yemen berada di bawah tahap kemiskinan. Selain daripada itu, pertumbuhan penduduk yang pesat turut memberi persaingan ke atas kebolehan untuk memenuhi keperluan asas. Dari sudut makro ekonomi, Yemen mempunyai masalah pengangguran dan pelbagai fenomena yang membawa kesan sosial yang tidak baik yang menyumbang ke arah KDNK yang rendah. Ekonomi Yemen turut dipengaruhi oleh perkembangan keadaan ekonomi di desa. Majoriti penduduk negara ini menetap di desa. Oleh sebab ini, dan struktur sosio-ekonomi semasa negara ini, pembangunan kebangsaan dan ekonomi Yemen telah terjejas. Untuk menangani masalah kemiskinan ini, kerajaan Yemen telah menyusun semula dasar ekonomi dan membangunkan program kredit kecil-kecilan. Mengikut penyusunan semula ini, Bank Pertanian Kebangsaan Yemen telah memperkenalkan program kredit pertanian dan mikrokewangan masing-masing pada pertengahan 1980an dan

1990an. Sehingga kini, program-program ini telah menunjukkan perkembangan dan bersedia untuk dinilai keberkesanannya ke arah tujuan mengurangkan kemiskinan.

Kajian ini bertujuan untuk menilai keberkesanan memperkenalkan program kredit kecil-kecilan ke atas mempertingkatkan kehidupan para peminjam. Dengan menggunakan modeling ekonometri, kajian ini memfokus kepada taraf kehidupan para peminjam. Untuk menentukan keberkesanan yang tepat, kumpulan bukan-peminjam turut dikaji. Dengan membandingkan kedua-dua kumpulan, iaitu "peminjam" dan "bukan-peminjam", kajian ini mempamerkan keberkesanan program-program sebegini. Saiz sampel untuk kajian ini adalah 540. Sebanyak tujuh daerah telah dipilih untuk tujuan pengumpulan data. Prosedur pensampelan secara rawak telah digunakan untuk memilih responden daripada kerangka sampel. Kajian ini menggunakan Sistem Lanjutan Perbelanjaan Linear (ELES) untuk menganggarkan garisan kemiskinan dan taraf kehidupan berdasarkan ciri-ciri sosio-ekonomi para responden. Dengan ELES, satu sistem permintaan untuk barangan makanan dan bukan-makanan telah digunakan. Kesan program kredit adalah diukur dengan memasukkan variabel "dummy" yang mewakili kumpulan-kumpulan "peminjam" dan "bukan-peminjam" di dalam model.

Kajian ini telah dilanjutkan dengan turut mengendalikan analisis regresi logistik untuk menentukan pilihan peminjam di antara kedua-dua program kredit pertanian dan kredit mikrokewangan, berdasarkan ciri-ciri sosio-ekonomi. Variabel bergantung model ini adalah dua kumpulan yang bertentangan, iaitu kumpulan yang mengambil mikrokewangan dan sebaliknya. Kumpulan "sebaliknya" termasuklah responden yang memilih kredit pertanian.

Keputusan kajian menunjukkan terdapat kesan sosio-ekonomi dan faktir-faktor lain yang signifikan terhadap perbelanjaan pelbagai barang makanan dan bukan-makanan. Taraf pendidikan dan saiz keluarga menunjukkan sumbangan yang signifikan ke atas jumlah perbelanjaan. Variabel "dummy" peminjam dan bukan peminjam turut mempunyai kesan yang signifikan. Ini menunjukkan bahawa terdapat kesan-kesan program kredit kecil-kecilan yang signifikan ke atas permintaan barang makanan dan bukan-makanan. Analisis regresi logistik menunjukkan bahawa responden lebih memihak kepada mikrokewangan. Pendapatan, tahap pendidikan dan saiz keluarga turut mempunyai hubungan yang signifikan ke atas pilihan program kredit.

Berdasarkan kepada keputusan kajian, adalah disarankan bahawa lanjutan kawasan kajian ke kawasan-kawasan miskin yang lain di Yemen adalah perlu untuk meningkatkan status sosio-ekonomi penduduk. Sokongan input, kadar faedah yang rendah dan penyusunan semula struktur pembayaran balik turut diperlukan untuk dipertimbangkan dalam pembangunan dasar.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
ANCOVA	Analysis of covariance
ACLB	Agricultural Cooperative Loan Bank
APFPF	Agricultural Production and Fisheries Promotion Fund
BPGT	Breusch-Pagan test
BRAC	Bangladesh Rural Advancement Committee
CLRM	Classical Linear Regression Model
ELES	Extended Linear Expenditure System
GB	Gramen Bank
GDP	Gross Domestic Product
GNP	Gross National Product
GTNCCD	General Trade and National Cooperative Corporation for Development
GOY	Government of Yemen
GBAL	Governmental Bank for Agricultural Loan
IGAGD	Income Generating and Group Development Program
IFPRI	International food policy research institute
LES	Linear Expenditure System
MFIs	Microfinance Institutions
NGOs	Non-Government Organizations
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squared

PROBIT	Probability Logistic
RDP	Rural Development Program
SFD	Social Fund for Development
VIF	Variance Inflation Factor
TOL	Tolerance
YR	Yemen Riyal