

# The Effect of Commercial Banks' Credit on Agricultural Investment Development

## An empirical study on Agricultural sectors in Kurdistan region

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**Abstract**— This research intended at assessing the influence of commercial banks' credit on agricultural development in Kurdistan. The purpose of this research is to investigate the impact of commercial banks' credit on agricultural development in Erbil. The questionnaire was divided into two sections, the first section consisted of demographic questions; starting with respondent's age and respondents' gender. The second part of questionnaire consisted of 16 questions regarding commercial bank's credit and 16 questions regarding agricultural development in Kurdistan. A random sampling technique was used, where all employees had equal chances of being selected for the sample. The study was carried out in Erbil. The researchers distributed 180 questionnaires; however only 144 questionnaires were completed properly. According to the findings of the statistical computation, analyses and results of the test carried out, it demonstrates that: The joint action of commercial banks credit to the agricultural sector, agricultural credit guarantee loan by purpose, government financial allocation to agricultural sector and agricultural products prices are significant factors that can influence agricultural production in Kurdistan. The findings revealed that there is a positive and significant influence of commercial bank's credit on Agricultural Development in Kurdistan. Government fund allocation to the agricultural sector has led to a significant positive growth in agricultural productivity. Prices of agricultural products have not made any significant positive impact on agricultural productivity.

**Keywords**— Commercial Bank, Credit, Finance, Agriculture, Development, Kurdistan.

### I. INTRODUCTION

The structure of the Kurdistan economy is multi-area in which the banks and the horticultural parts have parts to play. Earlier, the association between the managing an account industry and the agriculture division in Kurdistan has been a

petulant issue. If one somehow happened to take a registration of the considerable number of professions on the issue by different governments since autonomy and group them into those lauding the endeavors of the saving money industry and those reprimanding them as respects conceding credit to horticulture may probably see that the proportion of those for the later will be in the proportion of at least four is to one(Whitney, et al. 2018). This could additionally be reflected in the enactment of governments and the mandates of semi government organizations like the CBN on the issue. The setting up of an entirely government claimed bank for the sake of the Kurdistan Agriculture, Cooperative and Rural Development Bank with a point of exclusively loaning to agriculture undertakings on short, medium and long haul premise is predicated on the reasoning that the standard keeping money industry does not satisfactorily cook for the dire need of credit required for fast change of the farming segment of the economy (Shimokawa, 2018). This investigation harps on the couple of territories: the existing strategies and institutional system for horticultural credit in Kurdistan; the evaluation of the effect of credit on agriculture execution; and the distinguishing proof of some real requirements that smaller person the development of this area to accomplish its coveted objective and desire in the economy of the nation.

### 1.1 Statement of the Problems

Currently in Kurdistan with her huge region of rich soil, a sizable number of her subjects experience the will effects of appetite and starvation because of disregard of agriculture. Scarcely any agricultural industries around depend enormously on importation of vital crude materials in their generation and a significant number of the Kurdistan young people wander about jobless. It is of note that different approaches have been made to take care of these issues in which the banks have been focused to give the crucial parts

in the territory of financing through arrangement of credits. In any case, the actualities remain that the banks exactly the business banks have not come to think about the issue as much has not been felt in the region of credits to agribusiness. The allegation was that business banks incline toward giving credit to trade or exchanging to agriculture and where the credit was permitted, the premium payable appears to be over the top with some tight securities, which put confinements and unnerve numerous planned ranchers. Unexpectedly, where the credits are prepared to be in truth, a portion of the fanners or customers can't outfit the vital security and genuineness required by the banks as assurance to pad the impacts of spillages or unanticipated exposures ought to there be default. Likewise, there are fears of preoccupation of the advances to non-horticultural tasks as it is demeanor of a few people to grasp extravagant family unit family spending along these lines choking out the reason for which the credit was given. Obviously, some great customers that can be protected from this allegation are unavoidably burdened by wild calculates, for example, changes approaches, tenets, directions and certain challenges in getting official allow. On the above featured issues, this examination will inspect the endeavors of a few partners, for example, the business banks, government arrangement as for the Agricultural Credit Guarantee Scheme Fund in Kurdistan, her monetary allotment to agribusiness and the ranchers in relationship to the rural generation yield.

### 1.2. Objectives of the Study

The aim of this study can be subsumed under the following specific objectives:

- To evaluate the influence of credit spent by the commercial banks to the agricultural sector on agricultural productivity.
- To study the degree to which government fund portion has spent in boosting agricultural productivity.
- To assess the influence of agricultural product prices in inspiring agricultural production in Kurdistan.
- To empirically study the influence of Agricultural Credit from commercial bank on the agricultural sector.
- To propose ways, the commercial banks can efficiently participate in boosting agricultural production in Kurdistan.

## II. LITERATURE REVIEW

As per the United Nations Food and Agricultural Organization generation year book, farming was

characterized to incorporate oats, bland roots, sugar, palatable oil, crops, nuts, natural products, vegetables, wine, cocoa, tea, espresso, animals and domesticated animals' items. Additionally incorporated into the gathering are modern oil seeds, tobacco, and fiber, vegetable and elastic. Further to knowing the subject agribusiness, Adenle, et al. (2018), characterized farming as the development of the land to produce nourishment for man, feed for creatures and fiber or crude materials for ventures. It likewise incorporates the handling and advertising of products. As to the above perspective, the focal part of agribusiness in the individual and the nation's life everywhere can't be overemphasized. Pigford, et al. (2018), ascribed low farming efficiency to issue of labor improvement in horticultural part, parochialism in the part of preparing, absence of examination and dampening of rural staff, proffering arrangement; he offered that preparation ought to be made accessible to agrarian work force. He additionally prescribed for accessibility of assets to the staff, that the segment should tackle its assets and picked that administration conditions be made more great and focused in order to draw in the correct kind of faculty into the division as to him, the low rate of Kurdistan's horticultural creation is because of absence of adequate work force (Ru, 2018).

### 2.1 The Concept of Bank Credit

Credit is the extension of cash from the loan specialist to the borrower. van Soesbergen, et al. (2017), noticed that credit infers a guarantee by one gathering to pay another for cash acquired or merchandise and enterprises got. Credit can't be separated from the managing an account area as banks fill in as a course for assets to be gotten in type of stores from the surplus units of the economy and passed on to the shortfall units who require reserves for gainful purposes. Banks are along these lines indebted individuals to the investors of assets and lenders to the borrowers of assets. Bank credit is the getting limit gave to an individual, government, firm or association by the managing an account framework as advances. As indicated by Jensen & Barrett, (2017), the measure of advances and advances given by the managing an account area to financial specialists constitutes bank credit. Bank acknowledges is regularly gone with for some guarantee that guarantees the reimbursement of the advance in case of default. Credit channels reserve funds into profitable speculation along these lines empowering monetary development. In this way, the accessibility of credit enables the part of intermediation to be done, which is essential for the development of the economy. The aggregate local bank credit can be isolated in to two: credit to the private division and credit to the general population part. Subsequently, for this paper, we embrace the meaning of

credit given by (Ouyang, et al. 2018), which is characterized previously. Bank Credit and the Kurdistan Economy Since its beginning, the managing an account framework has been giving credit to the Kurdistan economy. With a specific end goal to analyze the part of bank credit to the economy, the total bank credit to the economy is utilized to gauge its effect development, which is an intermediary by total national output. This credit is ordered into credit to people in general part (government) and credit to the private division. This area shows and looks at credit to these divisions from 1992 to 2008 with a view to surveying its effect on the development of the Kurdistan economy (Woodhouse, et al. 2017).

From an absolutely financial way to deal with bank credit wonders, this investigation is exploring the connections among the amount of cash, speed of flow and the value level(von Braun & Bimer, 2017). The approach includes: (an) an investigation of financial techniques for crediting and charging store adjusts; (b) an examination of the importance of bank liquidity both for singular banks and for banks all in all in the absolutely financial sense; (c) an examination of the demand's for and employments of bank stores by store proprietors; (d) the significance of the presence of stores in a trade economy; (e) the relationship of the amount of stores to costs, and especially the impact of costs on the amount of bank stores(Ash, et al. 2017). The investigation looks to decide the general legitimacy of conclusions came to with reference to the connection of representatives' advances to stock costs when a similar kind of examination is connected to the connection of bank stores to product and different costs; Lending strategies ought to be obviously characterized and put forward in such a way as to give powerful supervision by the executives and senior officers. The top managerial staff of each bank has the legitimate duty to define loaning arrangements and to regulate their execution. In this manner inspectors ought to empower foundation and support of composed, a la mode loaning strategies which have been affirmed by the top managerial staff(Amanor & Chichava, 2016). A loaning approach ought not be a static archive, but rather should be assessed intermittently and amended in light of changing conditions encompassing the getting requirements of the bank's clients and in addition changes that may happen inside the bank itself. To an expansive degree, the economy of the network served by the bank manages the arrangement of the advance portfolio(Sarker, 2016). The generally dissimilar conditions of territorial economies and the significant difference in qualities of individual credits block foundation of standard or all-inclusive loaning strategies. There are, be that as it may, certain wide territories of thought and worry that ought to be tended to in the loaning approaches of all banks paying little

heed to size or area. These incorporate the accompanying, as essential(Yet, et al. 2016)s:

- General fields of loaning in which the bank will draw in and the sorts or kinds of advances inside each broad field;
- Lending specialist of each advance officer;
- Lending expert of an advance or official council, assuming any;
- Responsibility of the directorate in checking on, confirming, or affirming advances;
- Guidelines under which unsecured advances will be conceded;
- Guidelines for rates of premium and the terms of reimbursement for anchored and unsecured advances; • Limitations on the sum progressed in connection to the estimation of the guarantee and the documentation required by the bank for each kind of anchored advance;
- Guidelines for acquiring and investigating land evaluations and also to order reappraisals, when required;
- Maintenance and audit of finish and current credit records on every borrower;
- Appropriate and satisfactory gathering methodology including, however not constrained to, moves to be made against borrowers who neglect to make convenient installments;
- Limitations on the most extreme volume of advances in connection to add up to resources;
- Limitations on the augmentation of credit through overdrafts;
- Description of the bank's ordinary exchange zone and conditions under which the bank may expand credit outside of such territory;
- Guidelines, which at the very least, address the objectives for portfolio blend and hazard expansion and cover the bank's gets ready for observing and making proper restorative move, if considered important, on any fixations that may exist;
- Guidelines tending to the bank's advance survey and evaluating framework ("Watch list");
- Guidelines tending to the bank's survey of the Allowance for Loan and Lease Losses; and
- Guidelines for sufficient shields to limit potential natural obligation.

Advance officers ought to be in charge of progressing credit examination and the provoke ID of rising issues. In light of their regular contact with borrowers, credit officers can ordinarily recognize potential issues previously they end up

obvious to others. Be that as it may, foundations ought to be mindful so as to maintain a strategic distance from over dependence upon credit officers (Nakasone, et al. 2014). Administration ought to guarantee that, when plausible, every single huge credit are surveyed by people that are not some portion of, or affected by anybody related with, the advance endorsement process. Bigger organizations commonly build up particular advance audit offices staffed by autonomous credit experts. Cost and volume contemplations may not legitimize such a framework in littler foundations. Regularly, individuals from senior administration that are autonomous of the credit organization process, a board of trustees of outside chiefs, or an outside advance audit specialist fill this part. Despite the technique utilized, credit audit work force should report their discoveries specifically to the top managerial staff or a board council (Clark, et al. 2016).

## 2.2 Agricultural development

Agriculture is one of the drivers of worldwide ecological change. Roughly 12% of the Earth's without ice arrive surface is secured by croplands, and interests in agrarian advancement have in late decades prompted expanded profitability. In any case, in spite of these ongoing additions, approximately one out of ten individuals all around is undernourished because of destitution and high sustenance costs (Pingali, 2015). This could be exacerbated by unpredictability in sustenance costs coming from showcase hypothesis, political precariousness, or climatic stuns (dry seasons, surges, and so forth.). The improvement of down to earth arrangements that address these difficulties is a key undertaking for both established researchers and approach producers. Hence, a superior comprehension of the unpredictable connection between human action and the land framework is vital. Along these lines, there is developing accentuation on the need to make appraisals that coordinate both social and normal parts of the Earth's framework. Agricultural efficiency is undermined by deficiency of water, extreme land corruption, arrive utilize increase, intrusive species, prospects of vitality cost climbs, loss of biodiversity and biological system administrations, and environmental change (Lowder, 2015). This joining of current and quickly developing issues speaks to major ecological, financial, and social difficulties for mankind. One reaction to these difficulties is the advancement of more maintainable nourishment frameworks. With regards to financial advances, agriculture frameworks may change directions. An expanding group of writing centers around changes to the land framework identified with shifts in the financial or political framework, urbanization, or as an impact of contention. These changed directions don't really mean

enhanced maintainability, as appeared by Duncombe, (2016), who examined changes to the agriculture framework in connection to financial change in Vietnam. Quick urbanization identified with financial development can prompt loss of arable land, which may decrease the potential for reasonable advancement, particularly in districts with poor territorial arranging. As one of the world's most quickly creating locales, the Middle East has been faced with various difficulties that effect sustenance generation. Fast populace development, urbanization, and changing examples of nourishment utilization are debilitating household sustenance supply bases, making the locale progressively sustenance unreliable and dependent on sustenance imports. In the meantime, biophysical imperatives on sustenance generation, for example, restricted regular assets (especially water and arable land), are adding to the locale's nourishment uncertainty and exasperating national and provincial pressures. In the twentieth century, the cropland cover in the Middle East dramatically increased, from 3.5% of its aggregate region in 1900, to 8.4% out of 1990. Over a similar day and age, the area's populace expanded by a factor of around seven (Jauch & Watzka, 2016). The base cropland territory to sustain the tenants was assessed to be 0.05 km<sup>2</sup> per capita in 1989; in any case, in 1990, per capita cropland in the Middle East arrived at the midpoint of around 0.00025 km<sup>2</sup>, which is 200 times less. The profitability of the Middle Eastern croplands has been influenced not just by changes in soil fruitfulness and climatic fluctuation, yet additionally by national and worldwide legislative issues. The apparent part of agriculture in development and advancement has changed extensively finished the last 50 years. Expanding on the double economy display, early scholars saw monetary advancement as a development procedure requiring the reallocation of elements of creation from a regressive, low-efficiency agrarian segment to a cutting edge modern part with higher profitability and expanding returns (Schut, et al. 2016). As a customary division, agribusiness apparently contributed inactively to improvement by giving work and nourishment to the industrialization procedure. In this way, the present discussion is twofold, concentrating first on the potential part of farming and industry in encouraging African improvement and second, inside agriculture, on the capacity of the sustenance and fare areas to produce genius poor development. This paper adds to this discussion by inspecting how quickening development in the areas stressed by agribusiness' advocates and doubters can impact a nation's capacity to altogether lessen destitution. More prominent determination in the discussion is conceivable in the event that it is perceived that nation setting matters and agriculture has distinctive parts to play in various conditions. For

instance, the farming area in general and sustenance staples specifically will have more vital parts to play amid the beginning periods of monetary advancement when they command national salary and business(Laurance, et al. 2015). Nonetheless, these segments will without a doubt lessen as improvement continues and farming turns into a generally little division. Farming is additionally liable to assume a greater part in nations with great agro-natural conditions and restricted prospects for trade profit from minerals or other mechanical products. While the part of agriculture might be more critical in nations ruled by little homesteads, nations with dynamic and developing national economies and rising per capita wages may offer ranchers more noteworthy chances to differentiate into higher esteem items and non-cultivate wellsprings of salary(Trukhachev, et al. 2014). Agribusiness was a standout amongst the most essential establishments on which the territory of Kurdistan was built up. Since the finish of the nineteenth century, Jewish pioneers in Kurdistan considered agriculture to be a channel through which the connection between the Jewish individuals and their old country can be restored. Collaboration has been the way to the achievement of settlement and farming generation. A noteworthy institutional factor that has restricted farming efficiency in Kurdistan is direction of land property. Keeping in mind the end goal to address the very thought proprietorship structure of land in Kurdistan before freedom, the Government initiated arrive changes that put roofs ashore possessions(Ash, et al. 2017). Therefore, agribusiness in Kurdistan is overwhelmed by countless scale, proprietor possessed ranches. The latest evaluations propose that around 100 million family units were occupied with agrarian generation in 2002, approximately 70 for each penny of every single provincial family unit and just imperceptibly lower than the offer of country families occupied with agribusiness in the mid-1960s. In the course of recent years, the offer of cultivating family units tending plots of place

that is known for short of what one hectare has expanded from 60 for each penny to just shy of 80 for every penny and the normal ranch estimate has tumbled to around 1 hectare, with just ½ per penny of families cultivating in excess of 10 hectares of land. By the mid-1990s, most Kurdistan had instituted occupancy laws presenting responsibility for on inhabitants who could purchase the land they cultivated at a reasonable cost, which strengthened the pattern of expanded discontinuity of land possessions amid that decade(Banson, et al. 2015). Furthermore, the expansion in populace has likewise added to littler land possessions, while the subdivision of unique family arrive property over ages has left numerous families with arrive property too little to give a sufficient stream of salary. With little land property, agriculturists have restricted motivating force to embrace capital-serious cultivating procedures, as efficiency picks up from capital through motorization and abusing economies of scale are insignificant(Elias, et al. 2016). Bigger land possessions would likewise enable ranchers to take part in various trimming, which would make them less vulnerable to unfavorable climate conditions and help broaden their salary base. Private interest in the horticultural division has additionally been constrained by confined access to credit and protection, despite the fact that entrance has by and large enhanced over the previous decade with credit to the rural part developing, by and large, by more than 20 for each penny every year finished the period. In any case, credit expansion remains predominately centered around helping agriculturists through the yearly cycle as opposed to helping them to back the building and buy of benefits, for example, tractors and pump-sets(Prosdocimi, et al. 2015). Government programs have been utilized to enhance access to credit for ranchers through various channels, including: financing cost sponsorships; obligation alleviation; guarantee free advances; enhancing organization; and ordering banks to expand the stream of credit to rustic clients.

### III. METHODOLOGY

#### 3.1 Conceptual framework



Fig.1: Conceptual framework

**3.2 Research hypothesis**

**Hypothesis One:** There is a positive and significant effect of Commercial banks' credit on agricultural development in Kurdistan.

**3.3 Design of the Study**

The purpose of this research is to investigate the impact of commercial banks' credit on agricultural development in Erbil. The questionnaire was divided into two sections, the first section consisted of demographic questions; starting with respondent's age and respondents' gender. The second

part of questionnaire consisted of 16 questions regarding commercial bank's credit and 16 questions regarding agricultural development in Kurdistan.

**3.4 Sampling Size**

A random sampling technique was used, where all employees had equal chances of being selected for the sample. The study was carried out in Erbil. The researchers distributed 180 questionnaires; however only 144 questionnaires were completed properly.

**IV. RESULTS AND ANALYSIS**

*Table.1: Demographic analysis*

Parameters		Frequency	Percentage
Gender	Male	439	69.6
	Female	192	30.4
Age	20-25	40	6.3
	26-30	52	8.2
	31-35	70	11.1
	36-40	58	9.2
	40-45	144	22.8
	45 and above	49	7.8

Source: by the researcher, 2018

Table (1), shows demographic analysis for respondents participated in this study. 41 participants were from age 20-25 years old, 30 respondents were from age 26-30 years old, 26 respondents were from age 31-35 years old, 20 respondents were from age 36-40 years old, 16 respondents

were from age 40-45 years old and only 11 respondents were from age 45 years old and above. In terms of participants' gender; 93 participants were male and 51 participants were female.

*Table.3: Reliability Statistics*

Items	Cronbach's Alpha	N of Items
Commercial Banks' Credit	.784	16
Agricultural Development	.854	16

Source: by the researcher, 2018

Table (3) shows the reliability analysis for both variables (commercial bank's credit and agricultural development). According to the reliability tests, the researchers found out Cronbach's Alpha for commercial bank's credit items =.784 which are greater than .6 this means that 7 items for

commercial bank's credit factor were reliable for this study and the Cronbach's Alpha for agricultural development items =.854 which are greater than .6 this means that 6 items for agricultural development factor were reliable for this study.

*Table.4: Correlations analysis*

Items	Pearson correlation	Commercial Banks' Credit	Agricultural Development
Commercial Banks' Credit	Pearson Correlation	1	.386**
	Sig. (2-tailed)		.000
	N	144	144
Agricultural Development	Pearson Correlation	.386**	1
	Sig. (2-tailed)	.000	
	N	144	144

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Table (4) shows the correlation between Commercial Banks' Credit factor as independent factor and Agricultural Development as dependent factor. The value of R for the

Agricultural Development = .386\*\* which indicates that Agricultural Development is significantly but has weak correlation with Agricultural Development.

Table.5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.386a	.149	.143	1.57898

Source: by the researcher, 2018

As seen in the table (5), the value of R square = .149 which indicates that 15% of variables have been explained.

Table.6: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	61.967	1	61.967	24.855	.000b
Residual	354.033	142	2.493		
Total	416.000	143			

a. Dependent Variable: Agricultural Development

Table (6) shows the value of F for an independent factors and a dependent factor is 24.855 >1 which indicates there is a significant association between three independent factors and dependent factor.

Table.7: Coefficients

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.942	2.022		2.939	.004
	Agricultural Development	2.512	.504	.386	4.985	.000

a. Dependent Variable: Agricultural Development

Table (11) shows a simple regression analysis. As seen the results of a simple regression analysis, the value B for Agricultural Development factor is .2512 and P value = .000, therefore the research hypothesis was supported which stated that there is a positive and significant influence of commercial bank's credit on Agricultural Development in Kurdistan.

## V. CONCLUSION

The main aim of this study is to investigate the influence of commercial bank's credit on agricultural development in Kurdistan. According to the findings of the statistical computation, analyses and results of the test carried out, it demonstrates that: The joint action of commercial banks credit to the agricultural sector, agricultural credit guarantee loan by purpose, government financial allocation to agricultural sector and agricultural products prices are significant factors that can influence agricultural production in Kurdistan. The findings revealed that there is a positive and significant influence of commercial bank's credit on

Agricultural Development in Kurdistan. Government fund allocation to the agricultural sector has led to a significant positive growth in agricultural productivity. Prices of agricultural products have not made any significant positive impact on agricultural productivity.

## VI. RECOMMENDATIONS

According to the information about this research, the agricultural credit guarantee method fund has a participation of the Kurdistan government through the commercial Banks. The research clarifies that all these structures must be proactive to deal with the changing attitudes of the consumers (recipients of the loan). The recipients should identify the practice and benefits of accumulated savings, which is repeatedly allowed to group when existing facilities are not fully adjusted. This can assist the banks to hope that the loan will be paid and usher sustainability of bank and customer friendly relationship. The scheme should put more commitments in implementing vigorously the policy of granting loan by purpose so that those segments of the

nation's agricultural produce that are targeted for improved productivity will be achieved.

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