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#### An Interest Rate Commission Agent Banking System

#### **Abstract**

The bank's toxic or nonperforming asset or contagion and liquidity problems that can prone any time the banking business unsolved for last decades. To solve these problems banks adopted several models even though each of banking business models was a catalyst for financial crises. However, these problems can be solved applying an interest rate commission agent – banking system which is a system to be adopted by bank to be an agent for investors' loan funding to entrepreneurs by getting the fund seller and buyer agreement to administer the loan after disbursement by retaining reasonable interest rate commission from the agreed investor's loan funding credit price. Since increasing deposit interest rate increases deposit mobilization, applying discrete market interest rate incentive also is expected to increase the deposit mobilization. In same manner, increasing the credit price will increase the demand of the investors to provide loan funding which in turn increases the bank's loan mobilization.

**Keywords:** bank toxic asset, contagions, investor loan funding, discrete interest rate, interest rate commission agent banking, liquidity problem, banking model.

**JEL Classfication:** E22, E40, E50, G01, G33.

#### Introduction

Banking sector does have a bloody relationship with all sectors in the economy. Strengthening of banking system in a country would lead to develop the country's economy. Otherwise, the banking crises can affect the country economy as a whole. Since all sectors pass through the banking service to reach their financial target, the banking crises which arise from credit crunch can affect all sector in the financial system. The bank toxic asset is the only major sources of financial crises created by credit crunch led the bank to prone lending and consequences later retarding the country economy. Since much of sub-Saharan Africa is less integrated into global market, the global financial crises will affect the living standard of the countries and expected to lead to higher level of global poverty (Gallagher and Wilkins, 2012). By managing credit risk, liquidity risk and interest rate risk banks could increase their competitive advantage which in turn leads then to increase their shareholder value and this could also keep safe the counterparty risk should banks continue managing their risks which could arise in operation (Stulz, 2008).

The bank risk management feasibility study is less integrated with the borrower's project failures when the feasible project comes into reality. Uncertainty of the borrowers' business project outcome that led the loan repayment to be uncertain led banks to failure, that is common in every country. To mitigate risk bank secure loan against collateral, which helps to cover the remaining loan amount by selling the pledge property in open auction. However, the col-

lateral foreclosed may not cover the remaining loan balance which may be later repaid by searching attachable properties in the name of the principal borrower. If the remaining loan balance uncovered by selling the properties of the borrowers, the toxic asset remained in the balance sheet exposed the bank to fail ultimately and thereby the bank suffers from capital erosion and deposit run by depositors (Basu, 2003). In traditional banking activities after loan disbursement to borrower, the loan repayment collection process became too long which also lead the bank to liquidity problem in short run.

The main cause of bank's credit crunch and liquidity problems is that bank holds the customer fund as its own asset in balance sheet. The bank buying and selling of fund to get excessive revenue from loan has deprived the right of customer to get reasonable benefit from their deposited fund at bank. Because of these facts, bank is unable to control dynamic credit and liquidity risk from time to time. In order to solve these problems banks are shifting from traditional banking activities to non traditional banking activities to get noninterest income and avoid the risk related with credit crunch (Damankah, Anku-Tsede, Amankwaa, 2014). As a result, the interaction of demand and supply of money created a credit risk transferring market at which the bank exercised transferring of credit risk from originating and holding on balance sheet to originating and disbursing to investors in the market. Even though, this has not yet solved the bank credit crunch and liquidity problems (Bruno and Bedendo, 2013).

However, an interest rate commission agent banking business model can bring mutual benefit for investors, entrepreneur, depositors and the bank by establishing lucrative interest rate directly to fund providers and the bank to satisfy the demand of the entrepreneur. Since the bank administers the inves-

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tor loan funding having collected the interest rate commission from investors credit price, the bank balance sheet doesn't affect by the balance sheet risks such as credit risk, liquidity risk, market risk and operational risk. And also, the bank mobilizes more stable saving by paying discrete interest rate incentive on depositors' accounts. Since interest rate commission agent banking system business model can work with other banking business model according to the organization's incentive, structure, culture and skill of the employees, it can protect the bank and fund provider from windfall and permanent banking risks for which other business models failed to do so. Since the bank gets uninterrupted commission income without holding the depositors' fund as its own asset in balance sheet and without paying funding cost to an investor's loan funding, the bank's sustainability in market can be kept more by applying an interest rate commission agent banking system.

The organization of the paper is designed as follows: Section 1 discuses how an interest rate commission agent bank can develop a fit lending strategy, Section 2 discusses how bank gets relief from bank toxic or non performing asset or contagion and liquidity problems, Section 3 depicts how banking problems could be solved being bank as financier and commission agent for investor loan funding, Section 4 discusses how an interest rate commission agent banking System keeps bank's sustainability in the market, Section 5 discribes the determinants of an interest rate commission agent bank, Section 6 shows how to transfer credit risk to investor and entrepreneur to solve liquidity and credit risk and Final Section puts conclusion remark.

# 1. Lending strategies of an interest rate commission agent banking system

In order to increase loan and deposit mobilization at bank, designing an interest rate commission agent banking system is essential. An interest rate commission agent banking system is defined as a system to be adopted by bank to be an agent for investors' loan funding to entrepreneurs by getting the fund seller and buyer agreement to administer the loan after disbursement by retaining reasonable interest rate commission from the agreed credit price. The interest rate negotiated between the fund holder and the entrepreneur will not be beyond the bank's maximum interest rate set by the central bank. The benefit of the fund holder and the bank

will be dependent on their agreement to share periodically the loan interest that will be collected from the entrepreneur on a cash basis.

Based on loan contract agreement of investor, entrepreneur and the agent bank for an investor, the agent bank can disburse loan from investor's account to entrepreneur's account and the loan repayment which contained portion of the principal and interest amount will be credited into investor account periodically per agreement stated in loan contract. Since the loan is disbursed based on the nature, length of the period and the volume of the fund in deposit account, a short term deposit will never be disbursed for a long term loan that could bring liquidity risk (Bednar and Elamin, 2014).

To adopt an interest rate commission agent banking system, banks will need to develop the following lending strategies:

- 1. 360 degree lending strategy;
- 2. 180 degree lending strategy;
- 3. 90 degree ending strategy.

1.1. 360 degree lending strategy. This lending strategy involves two parties known to each other and the selected bank. Individuals/organs that have idled cash in bank or on hand for long period and wish to have now purposively an income on the right investment by lending the fund to the entrepreneur having the bank as an agent. In this case, the fund holder lends the idle funds to the entrepreneur having the bank as an agent. The entrepreneur and the fund holder may have been better acquaintances earlier and the disbursement of loan from an investor to entrepreneur may be with or without collateral according to the parties' agreement.

The bank selected by the investor and entrepreneur is an agent bank for investor's loan funding after disbursement. While an investor presents fund to disburse it to an entrepreneur through an agent bank, the agent bank will critically assess each necessary documents and the proposal presented by an entrepreneur to be authentic whether the loan can be repaid back properly or not. Here the agent bank for investor loan funding will benefit an interest rate commission and cease deposit interest calculation on the fund disbursed from investor's account. The fund provider will benefit credit price on the loan disbursed amount by satisfying the entrepreneur's scarcity of fund for business.

The following diagram depicted that how the loan funded circulates in 360 degree lending strategy.

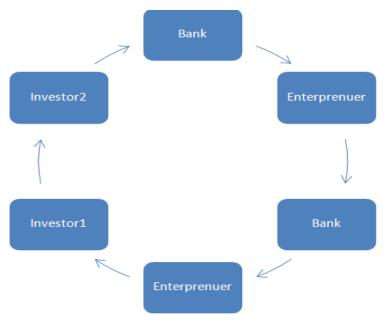


Fig. 1. 360 degree lending strategy

As depicted on the diagram, the fund disbursed from investor account through an agent bank must be paid back into investor account later by entrepreneur held at agent bank. If an entrepreneur fails to pay the loan in between the bank will collect the disbursed loan by foreclosing the collateral held for the loan or the loan can be sold to another investor who has same project interest or the bank forces to rent the business to other entrepreneur to continue the debtor's business. The agent bank collects interest rate commission per agreement between the bank and the investor up to loan settlement.

#### 1.1.1. Pros of 360 degree lending strategy for bank.

- The investor and entrepreneur prior acquaintance helps the bank to have more business knowledge about entrepreneur to make easy the bank's loan administration.
- Encourages investors and entrepreneurs to get into banking system.
- The cost for bank advertisement to get into the society will radically reduce.
- Till loan settlement date the bank collects interest rate commission.
- The bank will not pay any deposit interest rate on the fund disbursed amount from investor to entrepreneur's account even though in traditional banking system deposit interest rate calculated on all depositors' accounts.
- ♦ If the principal borrower fails to pay the credit price the loan can be sold or rented to an inves-

- tor or entrepreneur so that the bank interest rate commission from credit price will be uninterrupted.
- The bank gets relief from funding sources panic for loan supply.

#### 1.1.2. Cons of 360 degree lending strategy for bank.

- Requires highly skilled personnel in managing risk of investor's loan.
- Unless administrative cost could be measurable appropriately the bank administration cost will not be controllable.

1.2. 180 degree lending strategy. This lending strategy involves two parties unknown to each other and the bank. The fund holder will sell the fund to the bank to purposively invest it at any time in prospective selected projects at an agreed credit price. Until the bank gets the kind of project as promised and disburses it to an entrepreneur, the fund remains in the depositor's account at an agreed interest rate with or without a period limitation and the bank can use it for other investments having considered the full liquidity risk. If the fund provider requests the bank to receive credit price in between, the bank immediately ceases deposit interest rate on the fund disbursed and establishes an agreement to collect an interest rate commission by letting the credit price to the fund provider.

So, the fund circulates in 180 degree lending strategy depicted more by the following figure.

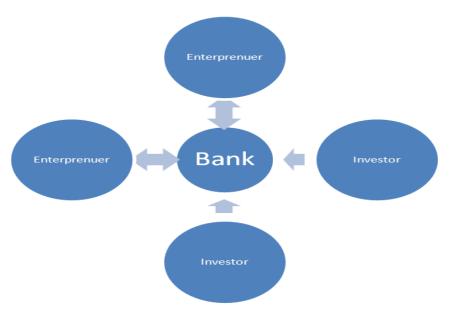


Fig. 2. 180 degree lending strategy

Here the investor can deposit fund to lend it to entrepreneur in future having stayed receiving discrete market interest till the bank selects the right investment project of entrepreneur. In selecting the investment project on behalf of the investor, the project selected should be under administrating capacity of the agent bank and administrating cost should be under the capacity of investor loan funding to pay any cost to agent up on claim. Since entrepreneurs search fund submitting their investment project option to the bank, which will later select appropriate investment project among the entrepreneurs' proposals to meet current demand of the fund holder who is ready to place in enterprise. Accordingly an interest rate commission agent bank will charge the investor one time fee for cost of project selection as addition to interest rate commission. The bank can facilitate the investor's request of lending the deposited fund to any entrepreneur who seeks fund if the bank has the right investment proposal of the entrepreneur at hand. Prior to the loan disbursement to entrepreneur the bank as an agent for investor loan funding establishes three parties loan contract agreement among the agent bank, investor and entrepreneur by including the right, obligation and benefit of the parties. The follow up of the loan after disbursement continues by agent bank to take action immediately up on failures of loan repayment by entrepreneur. The action of the agent bank can be direct foreclosure of entrepreneur's property or letting other entrepreneur to rent and collect loan repayment till the loan settlement.

#### 1.2.1. Pros of 180 degree lending strategy for bank.

- Enable to reply the loan request of an entrepreneur at any time.
- Till the loan disburse to an entrepreneur, the bank can use the deposit fund for its own in-

- vestment by paying discrete interest rate incentive on deposited amount.
- The bank will cease calculation of deposit interest rate on the fund disbursed from investors to entrepreneurs' accounts.
- Encourage investors and entrepreneurs to get into banking system.
- ◆ The bank gets relief from deposit and loan mobilization panic.
- ◆ The bank credit, systematic and liquidity risk will be mitigated.

#### 1.2.2. Cons of 180 degree lending strategy for bank.

- ◆ Till the loan will be disbursed to an entrepreneur the bank will pay interest rate incentive to use the deposited fund for loan purpose.
- Since the entrepreneur and investors are unknown to each other the bank's administrative cost will be high.
- 1.3. 90 degree lending strategy. This lending strategy involves two parties, the fund provider and the bank. The fund provider will purposively put the fund in the bank to get lucrative deposit interest rate. The bank will use the fund to lend it to entrepreneurs at an agreed loan interest rate considering the cost of deposit and loan administration. The benefit of the fund depositor is an agreed deposit interest rate with a discrete interest rate incentive, whereas the benefit of the bank is the lending interest rate. The bank is liable for any credit risk that will have arisen from a failure of the entrepreneur to repay the loan borrowed. However, the deposit will be released by the bank during the period if the need arises by the fund provider through an advance notice to the bank. In this case to protect the bank from interest rate risk; the depositor will forfeit the incentive amount for the remaining period. So categorizing the customer deposit according to their volume, period and purpose be-

nefiting with a variety of interest incentive will enhance the money deposited to be more stable in the account. Accordingly, the bank's credit risk and liquidity risk will be mitigated.

The fund flow in 90 degree lending strategy from investor to entrepreneur depicted as follows.



Fig. 3. 90 degree lending strategy

Here the investor is a depositor to collect lucrative discrete interest rate on the deposited fund. As deposited fund increases the discrete interest rate incentive that the bank will apply on the deposited fund increases. Here applying discrete interest rate incentive on deposited account helps the bank to mobilize more stable saving which will be availed to disburse loan to entrepreneur.

#### 1.3.1. Pros of 90 degree lending strategy for bank.

- Enable the bank to mobilize more stable deposit.
- Enable the bank to finance more loan.
- ◆ The depositor can finance loan so that the bank can collect interest rate commission.
- Enable the bank to meet dual targets such that mobilizing deposit and loan at same time.
- ◆ The bank credit, systematic and liquidity risk will be mitigated.

#### 1.3.2. Cons of 90 degree lending strategies for bank.

- Since the initial target of an investor is to get an interest rate from deposit account the bank's financial cost will be high.
- While the depositor requests the bank to lend the deposit money to entrepreneur in between, the bank shifts from creditor to an agent of depositor who benefits credit price by ceasing deposit interest rate on the fund disbursed amount from depositor's account. So that the bank income decreases from credit to interest rate commission.

Generally 360, 180 and 90 degrees lending strategies help the bank, entrepreneur and investor to have mutual benefit. The fund holders also enable to develop the right use of deposit and get benefit on fund. While the bank applies an interest rate commission agent banking system, the demand and supply of fund determined by investor and entrepreneur in the market. Since the interest rate is a link between fund provider and entrepreneur, the

increase of interest rate on loan and deposit will push up the demand and supply of money in the market. So that the bank can mobilize loan and deposit at same time to solve the bank's liquidity and credit risk problems.

# **1.4.** Limitation of the bank to implement an interest rate commission agent banking system. To implement an interest rate commission agent banking system, bank may have the following limitation:

- 1. The banking market in developing countries is not yet developed which will be a challenge for investor, entrepreneur and the bank.
- 2. Lack of the society awareness on banking activities leads the loan process and administration challenging.
- 3. The transaction between investor and entrepreneur is not yet free from central bank control which limits the loan market to be liberal.
- 4. The loan after disbursement needs stringent administration with perfect knowledge of the entrepreneur business with dynamic change of the market. Bank in developing countries may not have specialized personal with high skill of the risk types on the entrepreneur business.

# **1.5.** Applicability of banking law to an interest rate commission agent banking system. Bank is defined as any establishment authorized by law to engage in business of banking such that accepting deposit, advancing loan, overdraft facility, discounting bill of exchange, agency service, trustee service, and general utility service (Brady, 1915).

Unless there existed legal binding agreement between the bank and customer for deposit to be allotted for specific purpose of the customer, accepted money for deposit will no longer be money of depositor except money of banker (Geva, 2012). The money accepted by bank for deposit has a nature of general or specific purpose. The money accepted for deposit by bank for general purpose of the customer creates a relationship between banker and customer of debtor-creditor. In this case the customer can withdraw money from their deposit account any time. Whereas, the money deposited at bank for special purpose of the customer creates a relationship between the bank and the customer of bailee and bailor. Based on agreement between the bank and the customer, the money deposited at bank for special or particular purpose of the customer, which may be, to pay the deposited money on behalf of the depositor to third person on condition that the payee fulfills and presents all required document. Since the bank holds the deposit as agent of the depositor, the depositor can establish any investment agreement with agent bank thereon (BASSETT V. CITY BANK TRUST CO, 115 Conn. 1 (Conn. 1932)).

Similarly, an interest rate commission agent bank will execute special agreement with fund holder either to loan the fund to an entrepreneur as agent of investor loan funding. The customer who is benefiting discrete market interest rate from an interest rate commission agent bank can transfer it to special deposit for purpose of loan to an entrepreneur using the bank as an agent. Unless the money deposited at bank is for specific purpose of the customer's benefit and will not be withdrawn at any time by customer, the banker can use it for its own investment to get interest income.

Diversifying income generating activities within and across both interest and non interest income generating activities can enhance profitability and stability of the bank (Sanya & Wolfe, 2011).

As the bank income generating activities from noninterest income increased, the bank efficiency on service rendering enhanced (Van Der Westhuizen, 2010). Banks that run traditional banking activities fulfilling the central bank regulation of generating interest income increase at decreasing rate. Since there is positive association between interest and noninterest income, banks are focusing more on noninterest income generating activities rather than depending only on traditional interest based income generating activities (Jaffar, Mabwe and Webb, 2014).

So, bank generating income from noninterest income exposed to lower risk than those banks focused on generating interest income in traditional banking activities (Nguyen, Vo and Nguyen, 2015). Since interest based banking, which has adverse impact on production, income, employment, demand and supply, brought borrowers into hazardous situation. It has suggested solution based on Islamic finance concept which has greater social values than interest based banking (Saleem, Khan and Siraj, 2013).

However, an interest rate commission agent bank can collect interest rate commission up to loan settlement in return for administrating the investor loan funding to entrepreneur. As an interest rate commission agent, the bank expected to be equipped with highly skilled personals that have cutting age risk perdition knowledge to mitigate investor's and entrepreneur's risks related with liquidity and credit. Noninterest income has no relationship with changes in interest rate risk or idiosyncratic risk except fee based income generating activities that increase banks' exposure to the business cycle (Gorener and Choi, 2013). In same manner, interest rate commission of an agent bank has no relationship with change of interest rate risk or idiosyncratic risk and the bank is always kept on safe side of liquidity and credit risks.

Islamic bank profit – loss sharing with depositors on alternative investment products made it better than the risk mitigation by conventional bank. However, Islamic bank strongly exposed to massive deposit withdrawal risk due to lower remuneration on investment deposit product. As the matter of this fact Islamic banks are preferring to invest less in nonprofit-loss sharing products than in profit-losssharing products (Grassa, 2012). Since Islamic financing bases on partnership mode of profit and loss, the bank invites depositors on indentified investment opportunities from existing or new clients to benefit them investment profit of the enterprise in which the funds are placed collecting management fee in return for the service rendered. An interest rate commission agent banking system is highly based on service selling in administrating investor loan funding starting from loan assessment to settlement. It is the duty of agent banks to asses critically the loan process as is done by conventional bank on behalf of the investor loan funding.

To win the competition among banks, loan granted by banks having pledged the collateral of the borrower are unaffordable loan without proper consideration of the borrower's capacity to repay loan obligation. Once business loan disbursed to the borrower, banks are charging loan customer higher interest rate and fees in frequent time. Sometime the banker may engage in deception to conceal true nature of the loan terms to make the borrower more vulnerable to abusive practices. The predatory lending practices that lag the investment in a country by costing borrowers in billion dollars per year has not yet got valid solution (Ament, H., 2009). Because of this fact people prefer to borrow fund from informal credit organ whose source of money is illegitimate. This can also increase the circulation of currency in money laundry activities to make loan by illicit source of funds. Trade based money laundry that apparently is dangerous in increasing crime in the community has not yet been regulated and monitored internationally (Chhina, 2014). However, under interest rate commission agent banking system the entrepreneur and the investor know each other or at least the bank knows one of them, so it would be easy for the agent bank to enhance knowing your customer principle practice to avoid trade based money laundry and terrorism financing. Since the loan process based on investor loan funding run by agent bank based on the governing bank rules and regulations, the created relationship among investor, entrepreneur and the bank make the loan process assessment prudent. Because of this fact the bank will have no any loop hole to practice any predatory lending behavior since every step of it is followed by fund provider.

Informal firms in developing countries account for 50% of the economic activities. Because of the entrepreneurs in this economic sector are not profitable, the firms are very small, unproductive and stagnant. The people living style in this informal economy is hand to mouth even though huge amount of money circulates out of bank that impended bank money lending for investment in formal economy (Porta and Shleifer, 2014). Instance of this fact can be the money circulate in informal sectors of Nigeria accounted that a unit increase in size of informal sector results in 7.44% deteriorating the level of liquidity at money depository banks (Ogbuabor, Malaolu and Mba, 2013). The money circulates in informal economy lag the general level of investment and it has been a great challenge for government to bring informal economy into formal one. Debtor and creditor in an interest rate commission agent banking system are from informal and formal economy. Since the investors and entrepreneurs are the principal promoters of agent bank in the society, the informality in the economic sector is expected to be minimized.

Therefore, to solve historical banking problems an interest rate commission agent banking system can be applied based on the current banking law.

# 2. Relieving bank from toxic asset, nonperforming asset or contagion

The bank faces solvency problem as a result of holding toxic or impaired asset which can be the source of financial crises (Boudghene and Maes, 2012). As the toxic asset of the bank increases the bank profitability will decrease. Since toxic asset has an inverse relationship with capital, the sensitivity to change capital of the bank will positively affect the bank's profitability. In order to refill the liquidity gap, banks lend fund to similar financial institution to develop interbank market without considering their counterparty losses and credit worthiness that can expose to bank toxic asset. Since contagion is a financial institution disease that can be transfered to countries across border can be created by lending and borrowing loan among financial institutions without having studied counterparty risks (Memmel, Sachs and Stein, 2012). Proper management of the bank loan and deposit from conception to an end in a compatible manner will lead to achieving the profit maximization and reduces bank toxic asset as aimed earlier (Davydenko, 2010).

In traditional banking theory bank collects deposit from customer to disburse it to entrepreneur to get lucrative interest rate by holding the disbursed loan to entrepreneur as its own asset in balance sheet and thereby it takes higher credit risk and liquidity risk. The source of bank credit crunch is the bank lending and borrowing using client fund having born the risk associated with it. To solve these banking problems bank shall work as financier and commission agent bank as the market permits to avoid bank toxic asset and liquidity problems. Applying an interest rate commission agent banking system increases the profitability of the bank by avoiding bank toxic asset, increasing bank solvency by managing the customer fund for customer benefit and mobilizing deposit by incentivizing an interest rate on customer's deposit.

An interest rate commission agent bank is a system to be adopted by bank in managing the investor loan funding to an entrepreneur by collecting reasonable interest rate commission from investor credit price. So the bank as an agent holds the disbursed loan from investor deposit to entrepreneur's deposit account on liability side of the balance sheet and the net effect of the loan transaction on the balance sheet will be nil. Since the agent bank works for mutual benefit of the bank, investor and entrepreneur by transferring credit and liquidity risk to investor and entrepreneurs, the bank toxic asset will be alleviated.

So that, banks can avoid bank toxic or non performing asset or contagion and liquidity problems permanently by transferring credit risk to an investor and entrepreneur and by mobilizing loan and deposit using investor's loan funding and discrete market interest rate incentive for deposit mobilization respectively. The selected commission agent bank can disburse loan to entrepreneur directly using stable fund if the individual depositor's interest is to get discrete market interest income.

# 3. The bank role as financier and commission agent bank

In administration the investor loan funding to an entrepreneur the bank will collect an interest rate commission and the excesses above this interest rate commission will be credited into investor's account at same bank. It is the basic fact that an interest rate can create a link among investor's loan funding, deposit mobilization, and entrepreneur. In conventional banking loan interest rate depends only on the past trend of deposit interest rate (Kaymaz and Kaymaz, 2011). Whereas in an interest rate commission agent banking system the determination of the loan and deposit interest rate is based on the past trend of both loan and deposit interest rate. An interest rate commission agent banking system bases on the notion that as interest rate increases the demand of fund supplier, that also increases (Sivanbola and Adedeii, 2012; Mashamba, Magweva and Gumbo, 2014). As the credit price increases the demand of investor to supply fund for loan either in group or in single having the bank as an agent in administrating the loan funding after disbursement increases. By an interest rate commission agent banking system the loan granted by an investor to an entrepreneur could never be hold as an asset on the bank's balance sheet and the loan disbursement effect by transferring the loanable fund from an investors account to an entrepreneur's account on the liability side of the bank's balance sheet.

An interest rate commission agent bank administers the investor loan funding to entrepreneur by collecting an agreed interest rate commission from investor loan funding credit price. The agent's bank commission can be fixed in percentage or as per the agreement between the fund provider and the agent bank depending on the central bank rules and regulations. If the fund provider wishes to receive discrete market interest rate incentive, the bank can use the fund for own investment by mobilizing deposit applying discrete market interest rate incentive on the depositors account. If the fund provider wishes to receive credit price in between, the bank will start to calculate interest rate commission on the loan disbursed amount by ceasing calculating deposit interest rate on the fund disbursed to entrepreneur. In this case, the fund provider displaces to receive credit price in terms of discrete market deposit interest rate. Managing loan and deposit as financier and agent bank will keep benefiting the majority of unbanked and banked population in the society.

## 4. Sustainability of an interest rate commission agent bank

An interest rate commission agent banking system can directly increases profitability of the bank by increasing bank's income and decreasing the bank's financial expense on deposit account. While loan disbursed from investor account to entrepreneur deposit account, no saving interest rate can be paid on the loan disbursed amount from an investor account and the bank collects an interest rate commission from investor's loan funding credit price up to loan settlement. As deposit interest rate increases the bank deposit mobilization will increase. Since increasing deposit interest rate increases deposit mobilization, applying discrete market interest rate incentive also is expected to increase the deposit mobilization. As the credit price increases, investor's loan funding is expected to increase which in turn increases the bank's loan mobilization. Since an interest rate commission agent banking system totally transfers the bank credit risk to an investor and entrepreneur, and increases liquidity by incentivizing interest rate on deposit account, the bank is never expected to meet credit risk, liquidity risk and interest rate risk.

In administrating the investor loan funding to entrepreneur, interest rate commission agent bank receives nonvolatile and uninterrupted interest rate commission from investor loan funding credit price by ceasing calculating interest rate on the fund disbursed amount, where the bank can maximize profitability by alleviating funding cost. The bank as an interest rate commission agent can alleviate banking credit risk and liquidity by transferring credit risk to investor and entrepreneur, and mobilizing deposit incentivizing interest rate on the customer's deposit account respectively to make the bank's sustainability in the market more reliable and viable.

### 5. Determinants of an interest rate commission of agent bank

Bank as a financial institution accepts money for deposit to lend the deposited amount to an entrepreneur. Since the deposit at bank does have uni-direction with loan, in traditional banking the determination of loan interest rate bases on the preceding trend of deposit interest rate (Hossain, Bhuiyan and Rahman, 2013). To mobilize deposit, bank pays low interest rate into depositor's accounts for loan disbursement to entrepreneurs to gather loan interest rate more than twice of the interest paid into depositors' account (Chakazamba, Matanda and Dube, 2013). Disbursing fund to entrepreneur holding the disbursed loan as the bank's asset led the banking business to be affected by credit risk, liquidity risk and interest rate risk.

To solve banking risks, several credit risk transferring bank's business models adopted by banks earlier were a catalyst for financial crises for more than a decade (Blommestein, Keskinler and Lucas, 2011; Zuckerman, 2011; Baicu and State, 2012; Bruno and Bedendo, 2013; Mandel, Morgan and Wei, 2012; Young, McCord and Crowford, 2010). Because of this fact, money depositors at bank have not fully exercised their right to get full benefit of their money deposited rather than receiving unreasonable deposit interest rate that forced them to join informal market (Simon-oak and Jolaosho, 2013). The bank deposit mobilization affected by informal financial system where major of currency circulate out of bank to avoid government tax and to use money laundering (Perazzi, Merli and Paredes, 2010; Ogbuabor and Malaolu, 2013). Increasing deposit interest rate on deposit account helps to mobilize more stable fund from informal sector of the economy (Chakazamba et al., 2013). So, applying discrete market interest rate at deposit account using an interest rate commission agent banking system enables to mobilize more stable saving from informal sector.

To increase an interest rate commission of the agent bank benefiting investors credit price as per the rules and regulation permit by central bank of the country will increase the demand of investors to supply more loanable fund sustainably. Since an interest rate commission agent banking system administers the investor loan funding to entrepreneur, benefiting investor's credit price will lead all banked and unbanked society to get more into banking system. Though the determination of loan in-

terest rate in traditional banking based on the preceding trend of the deposit interest rate, credit price of the investor loan funding determined by an interest rate commission agent bank based on the interaction of demand and supply of loan in the market having kept the rules and regulation of the central bank of a country. If the fund provider targets to receive credit price in the long run but wishes to receive now discrete market interest rate incentive, the agent bank uses the fund for own investment by paying discrete market interest rate incentive into depositors account which later cease calculating interest rate on deposit account when the fund provider request in between the bank to lend the fund to entrepreneur. After the fund provider and the bank have agreed, the bank becomes an agent for inventor loan funding by receiving interest rate commission in terms of credit price which then after will be paid into investor account.

So investor loan funding, deposit mobilization incentivizing interest rate on depositors account, the credit price of the investor loan funding, the demand and supply of loan in the market, and informal financial sectors are the determinants of an agent bank's interest rate commission.

#### 6. Transferring credit risk to investor and entrepreneur to solve liquidity and credit risks

In order to keep mutual benefit of the bank, investor/depositor and entrepreneur using an interest rate commission agent banking system model to mitigate banking risks, banks shall consider separation of service selling and buying money to sell in order to maximize profit (Wen and Yu, 2013). In traditional banking activities, banks are limited to buy deposit from clients to sell it to an entrepreneur at the credit price, whereas, in nontraditional banking activities banks are involved in selling their service to their client according to terms and tariff of the bank. Though interest income is non volatile than non interest income, the systematic risk associated with non interest income is higher than interest income (Jaffar et al., 2014).

However, the agent bank that collects interest rate commission income from investor's loan funding credit price by administrating investor loan funding to an entrepreneur is non volatile and continuous up to loan settlement. Unless the bank uses the investor's fund for its own investment purpose the agent bank ceases calculating deposit interest expense on the fund disbursed amount from an investor's deposit account. Since an interest rate commission agent banking system model transfers credit risk to investor and entrepreneur and collects non volatile interest rate commission from an investor loan funding credit price, the sustainability of the bank in the market will be more

viable and reliable than those bank applied other business models in same market.

Bank as an agent administers the investor's loan funding to an entrepreneur based on the central bank's rules and regulation as the terms and conditions permit between an investor, entrepreneur and the bank. Since the system gives full right benefit to an investor and an entrepreneur, they will be principal motivators of the bank. Maintaining mutual benefit of the bank, investor and entrepreneurs creates an opportunity for growth of an individual/organ economy in the society and thereby lead to develop the country economy as whole.

An interest rate commission agent banking system does not hold the customer deposit as its own asset in the balance sheet, the transaction of loan disbursement and collection will be completed on the liability side of the balance sheet and thereby the bank transfers credit risk to investor and entrepreneur by managing loan for an investor with or without pledging collateral according to the agreement between an investor and entrepreneur.

#### Conclusion remarks

Applying an interest rate commission agent banking system maintains mutual benefit of an investor, entrepreneur and the bank by attracting unbanked and more banked society into banking system. It also increases the investment by narrowing the gap between informal and formal financial market. Banks that apply an interest rate commission agent banking system will maximize their profitability and thereby increase their sustainability in the market. Since the model ceases calculating deposit interest expense on the fund disbursed, the bank simply maximizes profitability by collecting interest rate commission up to settlement of the loan. The bank as an agent administers the loan disbursed rather than holding the loan as an asset in its balance sheet and hence the bank could never be affected by credit risk. To increase liquidity the bank can mobilize deposit by applying discrete interest rate incentive on the depositor's account. So that, the bank can directly finance loan to an entrepreneur to collect credit price. Therefore, the bank can work as an agent and direct loan financier at the same time.

So, investor's loan funding, deposit mobilization incentivizing interest rate on depositors account, the credit price of the investor loan funding, the demand and supply of loan in the market, and informal financial sectors are the determinants of an agent bank's interest rate commission.

To avoid banking credit crunch and liquidity problem the agent bank can transfer credit risk to investor and entrepreneur, and mobilize deposit by incentivizing interest rate on the customer deposit respectively. An investor can provide fund to the agent bank either to receive credit price now by disbursing loan to an entrepreneur or a discrete market interest rate incentive. If the fund provider wishes to receive discrete interest rate incentive on the fund deposited, the bank will disburse it to entrepreneur to get credit price but if the fund provider requests the bank in between to receive credit price instead of deposit interest rate on the fund already disbursed to an entrepreneur, the bank immediately ceases calculating deposit interest rate on the fund disbursed amount and receives interest rate com-

mission in terms of credit price by administrating the loan on behalf of the investor.

Generally applying an interest rate commission agent banking system can enhance investment, the fund provider and borrower will be the principal promoters of the agent bank rather than the bank gets into society advertising its product with high cost, money laundering and informal financial market will be alleviated, banking problems such as bank toxic asset or contagion and liquidity problems will be alleviated.

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