



## THE EFFECT OF DIGITAL UNSECURED LOANS AND DTI RATIO ON RISK-TAKING BEHAVIOR

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## Abstract

The objective of this study was to examine the effect of digital unsecured loans and DTI ratio on changes in risk-taking behavior of the household sectors. Increasing of P2P lending is clearly unstoppable in Indonesia. Digital unsecured loans success to simplify credit process, because online-based credit application. However, these simply process are followed by high-interest rate. Many people apply for credit without considering risk. The convenience of digital unsecured loans making people forget about high annual percentage rate. Finally, occur increase potential bad loans in the household sectors. Collection of data was carried out through experiments 2 x 2 factorial design. The results shows that digital unsecured loans increases risk-taking behavior of household sectors. DTI ratio also can be used as an internal control of household sectors to prevent increased risk-taking behavior.

## Research Highlights

This study prove negative impact of digital unsecured loans on risk-taking behavior. This study also prove that DTI ratio can mitigate individual risk taking behavior in condition there is digital unsecured loans. This study proposed three hypothesis and the results indicated there was significant difference (for all hypothesis) about mean scores of subject intention to apply digital unsecured loans between manipulation and control group.

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## Research Objectives

Previous studies on non-performing loans (NPL) showed that NPL has negative effect on economic growth (see Erdođdu, 2017; Balgova et al., 2018). Studies on NPL also analyzed factors influenced level of NPL (see Makri et al., 2014; Rehman, 2017; Waqas et al., 2019). However, these studies only focus on economic variables. NPL might be also influenced by psychological factors such as behavioral take risks. The purpose of this study was to conduct laboratory experiment to examine the effect of digital unsecured loans and DTI ratio toward risk-taking behavior. Specifically, this study compared mean scores of individual risk-taking behavior between subjects in condition with and without (digital unsecured loans/DTI ratio).





In addition, this study also examined moderation effect of DTI ratio on digital unsecured loans and risk-taking behavior relationship.

## Methodology

Laboratory-experiment 2 x 2 factorial design was adopted to carry out the study. Experimental method will give the clarity about causality conclusions from manipulation independent variable (Nahartyo, 2009). This study aims to examine the causal effect between digital unsecured loans and DTI ratio on risk-taking behavior, then experimental method was appropriate. Task of experimental was simulation of short-term credit application. Participants have to determine how much their intention to apply credit based on various information. Manipulation of independent variables induced to participant through information on experimental task. Dependent variable was risk-taking behavior, measured using Likert scale (1 – 10) about subjects' intention to apply credit. Independent variables were digital unsecured loans and DTI ratio. All independent variables were manipulated to subjects in the manipulation group through case materials they receive.

## Results

The result of this study showed that main effect of digital unsecured loans on risk-taking behavior was significant with  $F = 8.92$ ;  $p = 0.004$ . Digital unsecured loans were proven to cause significant increases in risk-taking behavior. Hypothesis 1 was supported. Main effect of DTI ratio was also significant with  $F = 4.54$ ;  $p = 0.03$ . DTI ratio was proven to cause significant reduction of risk-taking behavior. Hypothesis 2 was supported. Interaction effect between digital unsecured loans and DTI ratio on risk-taking behavior was not significant with  $F = 0.262$ ;  $p = 0.611$ . However, mean score of subjects in group manipulation (digital unsecured loans & DTI ratio) was lower and significantly different than subjects in group manipulation (digital unsecured loans & no DTI ratio). T-test showed that  $t$  score = 2.067;  $p = 0.04$ . In condition of digital unsecured loans presence, subjects who consider DTI ratio showed lower risk-taking behavior than subjects who don't. Hypothesis 3 was supported.





## Findings

Digital unsecured loans presence in the digital era has been shown to increase risk-taking behavior of financial subject in the household sectors. DTI ratio was proven to be an internal control mechanism to household sectors in evaluating risk from credit facilities, especially digital unsecured loans.

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