A Proposed Framework of The Effect of Financial Aid, Student Loan and Perceived Financial Well-Being on Student Engagement

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Abstract
Nowadays, large numbers of students rely on financial aid and student loans to get through higher education. Many students’ disengagement and drop out of college and university because of financial problems. As an important factor affecting student engagement, the relationship between financial aid, student loan, perceived financial well-being and student engagement is lack of research in China. This conceptual paper proposes a study aims to investigate the relationship between financial aid, student loan, perceived financial well-being and student engagement, which is a quantitative cross-sectional study using survey methods, and all hypothesized relationships reflected in the study model will be tested and validated using Structural equation Modeling (PLS-SEM) techniques. This study will explore these research areas using survey data from a private university in Ningxia, China. This study expands the research on the impact of economic difficulties in students’ input environment on student engagement, which can help university student managers and policy makers to formulate more reasonable input measures and incentive policies, and improve the efficiency of resource allocation. This study hypothesizes that financial aid, student loans, and perceived financial well-being are positively related to student engagement. The expected results show that all hypotheses are valid.

Keywords: Student Engagement, Financial Aid, Student Loan, Perceived Financial Well-Being, Higher Education

Introduction
In recent years, the number of higher education institutions has proliferated and a large number of students have flooded into universities for study (Wu et al., 2020). The total enrollment rate in higher education and students on campus in China ranking first in the world. The structure of higher education in China is also changing. China has promoted quality
Since 1999, in the evaluation of educational quality, student participation becomes an important factor (Bramley & Morrison, 2022). Nowadays, many institutions allocate significant resources to encourage students to participate in academic and extracurricular activities (Winstone et al., 2022). However, student engagement is limited by financial, cultural, transitional and other factors (Crabtree, 2023). Moreover, higher education financial support is constantly changing due to the changing environment. Universities in China are hiking up their tuition fees for this coming academic year. According to Reuters reported, the tuition fees of Chinese universities will be raised by 30% to 50% in 2023 (Ella Cao and Ryan Woo, 2023).

Financial aid is becoming more and more commonplace due to the rising conflict between the perceived necessity of a college education and the difficulty of paying for it (Dynarski et al., 2022). As a kind of human capital investment, financial aid spends a large amount of money to support students every year. China is also increasing the investment in student financial assistance. According to China National Center for Student Financial Aid, in 2019, a total of 105.9079 million students were funded nationwide, an increase of 7.8931 million over the previous year, and the total amount of student financial assistance was 212.6 billion RMB, which has maintained rapid growth for 13 consecutive years. In 2020, a total of 146.175 million students were funded, with a total funding of 240.82 billion RMB. In 2021, a total of 152.5168 million students were funded, with a total funding of 266.829 billion RMB. However, through the analysis of the different types of funding and the academic development of college students in the multiple mixed financial aid systems in higher education in China, it is found that there is a waste of money allocated in the system (Qi et al., 2022).

Compared to the other provinces and even the other four minority autonomous regions Ningxia Hui Autonomous Region is economically underdeveloped in China. According to data from the Ningxia Education Department and nxnews.net, in 2020, there are 80,100 students from poor families in Ningxia's colleges and universities borrowed a total of 527 million RMB. 86,000 students from colleges and universities borrowed 600 million RMB in 2021, and 92,800 students from colleges and universities borrowed 737 million RMB in 2022 (Ningxia Student financial Aid Management Center, 2020). More than half of students rely on student loans to finance higher education.

Financial issues are critical factors of student engagement (Khlaif et al., 2021; Crabtree, 2023). Students have to give up some participation behaviors due to money problems, such as having no money to participate in extracurricular activities or missing classes for work (Griffin & Gilbert, 2016; Crabtree, 2023). In addition, financial issues include the subjective financial feelings. There is lack of research about the relationship between financial aid, student loan, perceived financial well-being and student engagement.

The purpose of this study is to focus on student engagement and to understand the relationship between financial aid, student loan, perceived financial well-being and student engagement.

In line with the statement of the research problem above mentioned, the study addresses the following research questions:

**RQ1:** What is the relationship between financial aid and student engagement of Ningxia higher education students in China?

**RQ2:** What is the relationship between student loan and student engagement of Ningxia higher education students in China?
RQ3: What is the relationship between perceived financial well-being and student engagement of Ningxia higher education students in China?

The research objectives are as follows

RO1: To verification the relationship between financial aid and student engagement of Ningxia higher education students in China.

RO2: To verification the relationship between student loan and student engagement of Ningxia higher education students in China.

RO3: To verification the relationship between perceived financial well-being and student engagement of Ningxia higher education students in China.

Literature Review
In higher education, student engagement has been considered to have a root effect of student academic performance and student success (Gladstone et al., 2022). Student engagement contributes significantly to positive student outcomes, such as achievement, curriculum intent, and well-being. The student engagement is a direct route to academic success, cumulative learning and constructive behavior, it is critical to achievement in higher education (Çalişkan, 2023).

Nowadays, educational technology is the most frequently identified dimension on student engagement in existing research, followed by affective and cognitive engage. Bond et al (2020) found that the elements affecting student engagement to be influenced by the external environment and policies, in addition to the students themselves, their families, teaching staff, peers, and educational technology. Social factors have been found to play an important role in academic achievement (Mishra, 2020). Li & Xue (2023) discovered that positive teaching staff behaviors, partnerships and relationships between teaching staff and students, support for learning resources are all aspects that help students succeed. Crabtree (2023) focuses on student opinions outside of academic activities, and investigates the student engagement in higher education, found that barriers to student engagement include transition, financial resources, cultural problems, and employee support.

As soon as students enter higher education, students are required to pay tuition, this places students from disadvantaged socioeconomic backgrounds at a significant disadvantage (Boucher, 2021). There is a significant correlation between low socioeconomic status and behavioral issues among students (Vlah & Kokić, 2023). There is evidence that increasing the student loan limit increases the amount of student debt and thus reduces the amount of time these students spend in paid work (Black et al., 2020). Numerous colleges and universities are developing well-being initiatives that address health disparities, especially among underrepresented or marginalized populations. Financial support policies may be effective in enhancing the financial well-being of students from low-income families (Xie et al., 2020a). Existing studies have suggested that student loans can increase students’ educational opportunities and the relationship between student loans and students’ academic and economic performance (Kim et al., 2021). Whether the role of student loans is a positive or negative economic factor depends on students larger financial and socio-economic well-being, student loans are an important factor in students’ financial well-being (Montalto et al., 2019a; Black et al., 2020). In addition, financial aid is used to ease the financial costs of participation and remove financial barriers (Kaye, 2021). Financial well-being could be
improved through the provision of aid. Debt relief can enhance subjective financial well-being by reducing the burden of debt from tuition and individual and household living expenses (Xie et al., 2020).

People with the same financial status may experience different levels of happiness, contentment, and joy. The psychological components of well-being are included in subjective well-being. According to She et al. (2022) one's feeling of financial security and financial freedom of choice in the present and the future is a key component of subjective financial well-being. Since subjective financial well-being varies among persons, even those in similar financial situations (She et al., 2023).

At present, there are far more antecedent analyses of financial well-being than consequence studies. This gap has been repeatedly mentioned in other review papers. Bashir & Qureshi (2023) through a conducting systematic review elaborate that previous studies on financial well-being were mostly studied together with such topics as "poverty", "behavior", "income", "health" and "growth", Existing literature on consumers' perceptions of their own financial well-being also indicates a dearth of study into the results or repercussions of this phenomenon (Nanda & Banerjee, 2021).

Based on the review of previous literature, this study integrates financial aid, student loan and perceived financial well-being, and focuses on the results of higher education students' financial well-being to determine the relationship with student engagement. although it is now widely accepted that financial status affects student engagement and performance (Bond et al., 2020; Crabtree, 2023). However, lack of research about the relationship between the student financial and student engagement (Abou-Khalil et al., 2021). Meanwhile, the research of student engagement is no longer limited to the classroom and academic engagement, but extends to the social category of university (Bradley et al., 2021). At present, there is a lack of research on the influence factors of external environment on student engagement (De Borba et al., 2020). This paper makes up for this limitation, organically combines the consequences of studying financial well-being with the environmental factors of studying student engagement, and forms the current research framework.

![Proposed Research Framework in this Study](image)

Figure 1. Proposed Research Framework in this Study

On the basis of the previously discussed overview, three hypotheses were devised to describe the causal links envisioned in the theoretical framework. This section describes the hypotheses developed for this investigation.

- **H1**: Financial aid has a positive effect on student engagement.
- **H2**: Student loan has a positive effect on student engagement.
- **H3**: Perceived financial well-being has a positive effect on student engagement.
Research Methodology
Nowadays, residents' disposable income increased significantly and living standards improved significantly in China (Liu et al., 2020). However, for Ningxia, the backward inland region in China, financial problems remain a major concern for students' families. Specifically, students from Ningxia's private colleges and universities. In China, admission to both private and public colleges is determined by the college entrance test. If students' performance is not good enough for public universities, they have to go to private colleges and universities (Wu et al., 2020b). However, private colleges are expensive. The financial burden is greater for private universities in China, which typically receive funding from students' tuition fees, with more than 90 percent of their income coming from tuition fees, this also makes students at private universities bear high tuition fees (Xiong et al., 2022).

The study will be conducted in Xinhua College of Ningxia University. Xinhua College of Ningxia University is the best private university in Ningxia, with tuition about three times that of Ningxia University, which is the best public university, and admission scores in Ningxia are only lower than those of Ningxia University. In addition, about 90% of the students in this private university are local students from Ningxia (88.85% in 2022 and 90.7% in 2023). Their income and expenditure are in the context of this region, which makes financial problems more prominent. This also indicates that it is appropriate and representative to carry out this research in Xinhua College of Ningxia University.

In this quantitative approach study, this study will be utilized proportionally stratified sampling by grade and systematically samples students from various grades. Using the G*Power software, the minimal sample size is computed. The test was conducted with a significance threshold of 0.05, a power of 0.95 and an effectiveness of 0.15 \((f^2 = 0.15)\). In 2023, the private university has an enrollment of 8,360 students, it is divided into four grades. In order to ensure the minimum sample size and good accuracy, to avoid situations such as participants refusing to answer, the sampling interval is 30, and a total of samples will be taken.

Results and Discussions
The expected conclusion is that all the hypotheses valid, financial aid has a positive effect on student engagement. Student loan has a positive effect on student engagement. Perceived financial well-being has a positive effect on student engagement.

The expected conclusion also suggest that students' financial status has a significant impact on student engagement, and that adequate financial aid and student loans that can support students' higher education tuition increase student engagement, which may also be due to the fact that financial aid and student loans reduce the amount of time and effort that students spend on obtaining tuition and college-related expenses, thus increasing student engagement, which is consistent with the findings of Qi et al. (2022). Also, perceived financial well-being was significantly correlated with student engagement, which provides a good reference for educators and student psychologists that adjusting students' perceptions of financial well-being can also promote student engagement when there is little difference in objective economic conditions.

Conclusions
This study is expected to confirm the relationship between financial aid, student loans, and perceived financial well-being and student engagement. It reflects the influence of current financial policies and financial factors on students' participation behavior, and also reflects
the influence of students' subjective perception of financial management on students' participation behavior, which has a strong guiding role for students' behavior management.

This study has positive theoretical significance. On the one hand, regarding student engagement, most current studies on student engagement focus on the student academic engagement. This study suggest that the campus social environment should also be considered. Shah and Cheng (2019) suggest that one of the "most important" barriers of student engagement is the financial difficulties. However, there is lack of research to prove how student financial well-being affects student engagement, which is also a big gap in this study. On the other hand, the research on financial well-being in China has just begun (Nanda & Banerjee, 2021). This paper studies the effects of financial aid, student loan, perceived financial well-being on student engagement in China universities, which enriches the theory of financial well-being of young people in developing countries.

This study has practical significance for student administrators, policy makers and teaching staff in universities and colleges. At present, universities and colleges use a large number of resources to motivate student engagement (Crabtree, 2023), therefore, understanding the effect of financial aid, student loan, financial well-being on student engagement can help relevant personnel to formulate more reasonable engagement measures and incentive policies, and enhance the efficiency of resource allocation. At the same time, this study focusing on student financial aid and student loans while focusing on students' subjective financial well-being, which also has a certain guiding role for financial service providers and financial educators. Finally, the controlling effect of students' subjective well-being on overall financial well-being should be paid more attention, also to the managers of Chinese students and students' psychological health education workers provides some reference suggestions.

This study also has some limitations. First, this study adopts a cross-sectional study, which cannot accurately determine the causality of various factors. Examining the effect of financial factors over an extended time may provide more concrete findings. Second, this study adopts the data of students from a private university in Ningxia, that can lead to limited generalizability of the results. Thus, larger samples should be incorporated in future studies to make the results more representative. Finally, this study focuses on the impact of three financial factors on student engagement, other variables not included in the model may help explain the likelihood of student engagement.

References


