Home Lone - Qualitative and Quantitative Information

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RES500: Fundamental of Quantitative Analysis

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Home Loan - Qualitative and Quantitative Information

This weeks critical thinking assignment asks us what qualitative and quantitative information would support my ability to receive a home loan and how we would use statistical analysis and probability to determine if we would qualify for that home loan. We are then asked to look at this situation from a loan officers point of view and determine what information we would like to see from a loan applicant.

Qualitative Information

Whether you are applying for a loan for the first time or have decades of experience, my residential history will play an important qualitative factor to support my ability to receive a home loan. Having a proven past of on-time rental payments and stability in my living arrangements emulate reliability. In addition, long-term residency in one location can give insight on whether this will be a long-term investment or if the goal is to flip the house, for example.

Having strong employment stability would be something that lenders prefer. Being with an individual employer for a long period of time shows that I have a reliable source of income and that I will consistently generate the income needed to pay off the loan.

Another qualitative factor that can be very beneficial would be personal references. Providing references that I have had housing history with, such as previous landlords or real estate agents, can help strengthen my loan application. This factor can also be a way for lenders to see my character and responsibility.

Quantitative Information

When applying for a loan for a house, lenders are most concerned with a buyer financial stability and ability to pay the mortgage. The most important quantitative information that lenders look at is your credit score. Credit scores range from 300-850. This is important because a higher credit score generally indicates a lower risk and that the individual has a better chance at paying off the loan. Although it’s not required, lenders tend to give priority to borrowers with higher credit scores compared to those with lower credit scores, will give a larger amount for that loan, and the loan will have lower interest rates (Credit Karma).

Another important factor that would support my ability to receive a home loan would be my gross income. This consists of my salary, investment income, and other earnings before deductions. Lenders like to see a consistent and stable stream of income to determine how much of your monthly income can be put towards paying off the loan. Furthermore, by looking at your gross monthly income, lenders are able to see that you are better able to repay the loan which will be less of a risk from their side.

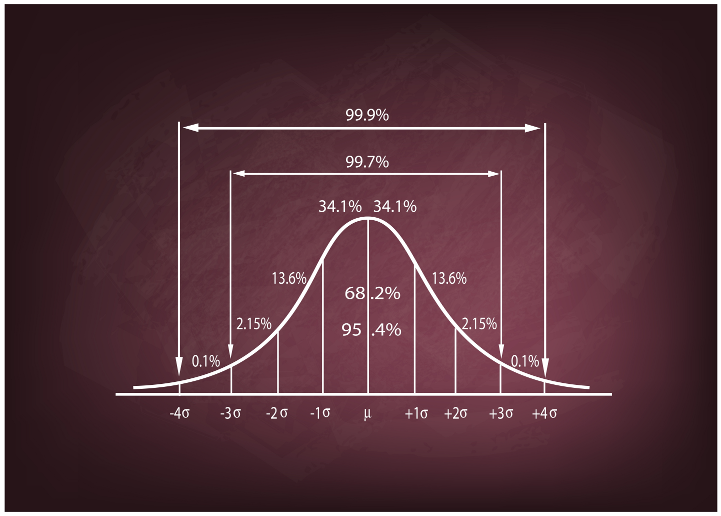
As we have seen in recent years with the COVID-19 pandemic and recessions, there are many economic uncertainties that can affect peoples ability to pay off their previous obligations. Families and individuals that had sufficient assets and savings were able to make it through these difficult times with much more ease compared to those that had less reserves. Having sufficient assets, savings, and investment and retirement accounts would increase my chances of receiving a home loan because those illustrate my ability to maintain financial stability even through financial hardships and unexpected expenses that may arise.

Statistical Analysis and Probability

Using statistical analysis and probability is a technique I could use to help determine if I would qualify for the loan. Given my current financial situation and the current stage in my career, if I were to use standard deviation when comparing myself to the general demographic of people applying for loans, I would consider myself between the -1 and 1 standard deviation of the mean (see Figure 1).

Figure 1

Standard deviation is represented by the Greek Letter sigma σ and is a measure of how spread out data values or numbers are.



According to Module 4.3 of RES500-1 (CSU Global), 68% of all observations are located between -1 and 1 standard deviation of the mean. The higher the sigma level, the more desirable an individuals qualitative and quantitative factors are and will more likely be approved for a loan. I am a 25-year-old so my age would be be below -1 standard deviation. However, my credit score is in the “Very Good” category, I have never missed a credit payment, and I have a stable and well paying job. With all these factors taken into consideration, I believe I would fall into the 68% of all observations and I believe that I would be approved for a home loan. My concern is that I will be given high interest rates given my short credit history.

If I was the Loan Officer

If I was the loan officer reviewing an application for a home loan, the most important information I would want from the loan applicant would be their credit score. As discussed in the Quantitative Information section, credit scores give an overview of an individuals credit management history and helps determine if they can consistently make monthly payments.

Personally, I would want to see my applicant have a credit score of over 650 compared to the typical requirement of 620 (US Bank). I chose higher than normal because I would like to loan to more reliable applicants.

Other information I would want to see would be their gross income and financial statements. With this information, I could simply divide their monthly debt payments by their monthly gross income to determine their debt-to-income (DTI) ratio. This ratio is useful in determining your borrowing risk. The highest DTI I would like to see would be 36% since low DTI is a sign that the applicant has high income compared to their debt payments and will be better able to make their monthly loan payments.

The down payment is an important quantitative factor when applying for a loan and can affect your loan eligibility. Having a larger down payment shows that you are able to make a larger initial investment and that your monthly payments will be smaller which is attractive to loan officers. To take it a step further, having a larger down payment would decrease the loan applicants loan-to-value (LTV) ratio. A loan-to-value ratio is used to compare the mortgage amount, or the loan amount, to the appraised value of the property (Investopedia). This is used to determine the risk associated with approving a loan to an applicant. To reduce my risk as a loan officer, I would like to see an LTV of less than 80% since anything higher will likely require higher borrowing costs or private mortgage insurance.

Conclusion

Both quantitative and qualitative factors play an important role in the process for a home loan for both the applicant and the loan officer. These factors provide an overview of the borrowers ability to manage debt and make monthly payments so that the loan officers can make an informed decision. In contrast, loan applicants should build a strong credit history to enhance the probability of being approved for the loan.

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