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A Structural Equation Modeling On Financial Health For Businesses

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ABSTRACT:
The SEM refers to the structural equation model and is used as the tool for analyzing the statistical data. With the help of this tool, different variables are identified and along with this, the relationships between the variables are also identified. The assumption of the correlation between the variables is dejected by the SEM. Moreover, SEM is also capable of performing investigations by using 200 to 400 sample sizes. Only by proceeding with a single analysis step the construction of the relationship between the two different variables is performed which makes the SEM method widely selected. Along with this the models used in the equation process for measuring stand for the theories.

Key words: *Structural equation modeling, exogenous variables and endogenous variables, latent constructs.*

INTRODUCTION

Structural equation modeling is a technique followed in analyzing different statistical data. With the help of structural equation modeling the relationships between different statistical data are detected. Under this structural technique, two different analysis processes have been present such as “factor analysis and multiple regression analysis” (Dvorský et al. 2023). The variables that are already defined and measured previously are analyzed to find out the correlation between these variables. Moreover, the structural equation is also capable of finding out the presence of any kind of relationship between latent constructs and variables. Different researchers widely use the method to analy[1]ze and find out the presence of any kind of correlation between the variables. This wide selection of the structural equation modeling method is observed due to the application of a single analysis test. In other methods the researcher has to do different analysis tests to find out the intermediate correlation between the variables and on the other hand, only by doing a single analysis test does the structural equation modeling give the correct outcome of identifying the intermediate relation with the variables (Daud et al. 2022). Two different types of variables are used in the structural equation modeling process. Both exogenous variables and endogenous variables are used. Among them, two

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endogenous variables are equal to the independent variables and equivalent to the dependent variables.

Structural equation modeling can also be applied as a theoretical concept. With the help of the structural equation, the researcher can describe the relationships between the variables in terms of their consistency. Moreover, the equation is also useful in terms of explaining the phenomena that are present in the relationships of the variables (Ali et al. 2020). The structural mode offers the generation of the idea that is involved in constructing the there's behind the development of the relation between two variables of the same equation or the other equation as well.

In other words, structural equation modeling is also known as casual modeling. This is because the way of describing the relationship by using structural equation modeling is casual. The equation can be able to develop different assumptions such as “Linearity, Outlier, Sequence, Non-spurious relationship, and many others” (Yu et al. 2021). The application of the normal distribution among the variables is detected by the structural equation and the changes identified in the normal test are also responsible for making large differences. These changes in the normality test are further assumed by the chi-square test. Liner bonding “between endogenous and exogenous variables” is estimated by the structural equation in the investigation works. The outliers of the data are also estimated by using the structural equation. Along with this, the effects made by the outliers of the data are also explained by the structural equation modeling. The sequences of the relationship “between endogenous and exogenous variables” are also assessed by the equation model (Zhai & An, 2020). It has been observed that sequences refer to the cause-and-effect bonding between the variables. That means by discussing the sequences the reason for developing the bold and the effect created as a result of the bond are also found out.

MATERIALS AND METHODS

Importance of maintaining financial health in business

The financial health of the business is involved in indicating the financial resources and the financial performance of the business organization. Good financial health is associated with the high level of ability of the business organization to perform finance performances. On the other hand, good financial health also reveals the good availability of financial resources that are to perform different business actions (Adam & Alarifi, 2021). In order to maintain such good financial health proper financial management is required. When the financial management is performed in the right way then the business authorities have enough financial resources to buy the raw materials, give salaries to the employees, perform different marketing activities, perform the production process, and many other business operations. With final health, the business organization can make better decisions for the betterment of the company. Along with this, it has been observed that business complications and the development of complexities in business operations are reduced when the company develops good financial health (Mardani et al. 2020).

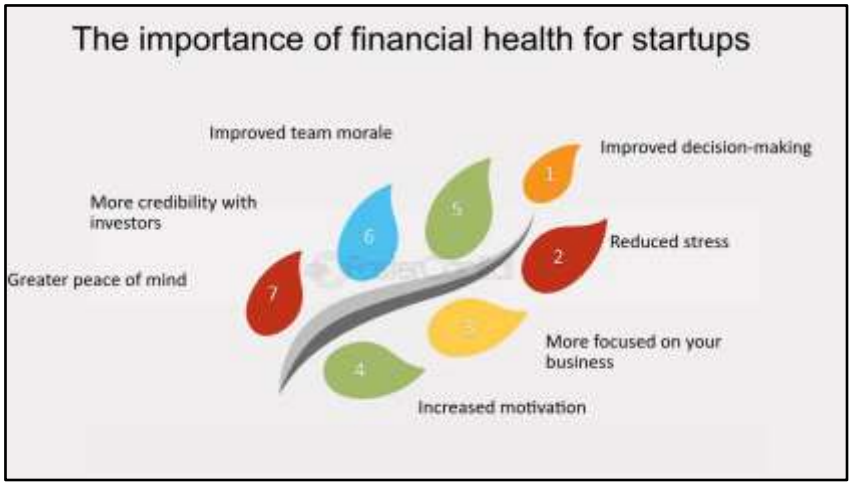

Figure 2: Importance of maintaining financial health in business

Role of Structural Equation Modeling in Managing Financial Health

Structural equation modeling plays a significant role in business operations and is majorly responsible for offering different types of beneficial impacts. The utilization of the SEM is helpful in terms of identifying different factors that influence business operations. There are mainly two types of factors observed such as independent factors and interdependent factors. Both of these factors can influence the risk analysis and the risk management process of the business association (Tangi et al. 2021). Hence the risk management process is directly handled by the factors that can be identified and assessed by the SEM. Management of the overall capital distribution in different sectors is also performed by the SEM. In order to improve the quality of the financial operations the SEM is involved in performing different operations.

Stages of structural equation modeling

The structural equation model is capable of performing the investigation by using a high sample size. Approximately 200 to 400 sample sizes are investigated by using the equation modeling process. In addition to this 10 to 15 indicators can also be added to the sample size of the investigation. However to perform this investigation a total number of 6 different steps need to be performed. The first step is about defining the constructs of the projects. Under this step, the construct theory has been discussed which also highlights the evaluation process for the variable to find the most significant variable (Javed et al. 2020). In the next step measurement models are developed. The next step is based on the path analysis by which the investigator can be able to follow the right path of developing the set of different relationships “between endogenous and exogenous variables”. However, in this step, different-sided arrows are used for making the assumption. The thirst step focuses on the empirical study development process. In order to reduce the indemnification problem the likelihood of the measurement designs need to be done. Under the fourth step assessment of the validity of the measurement model is performed. In the fifth step specification of the structural model is performed. By using a single arrow pathway the process of specification is done. The sixth and final step is to assess the validity of the structural model. By applying the chi-square test the validation checking process of the structural model is performed.

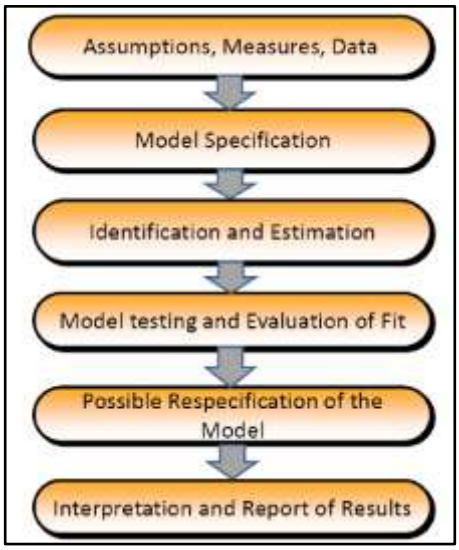

Figure 3: Stages of structural equation modeling

External factors affecting structural equation modeling (SEM)

Wide ranges of external factors are available which are responsible for impacting the theoretical framework of structural equation modeling. Among different factors, misplacement of the data is one of the most significant factors that is responsible for developing an adverse impact on the outcome of SEM. When some data is misplaced then the investigator may not be able to perform the equation and as a result, the outcome cannot be produced. Unequal distribution of the variable is another factor and this also lowers the chances of identifying the bond and constructing a relationship with the variables. Reliability values of the variables can also create an impact on the measuring process of the SEM.

RESULTS

Application of Structural Equation Modeling in Business

The application of SEM in business is associated with performing different functions. SEM is mainly used as a tool for analyzing statistical data. This analysis process helps to develop ideas about the marketing review of the products and services offered by the business association. Moreover, the SEM is also capable of performing the hypothesis which helps to understand the probability of the strategies that can be used by the business organizations in the operations. Moreover, these hypotheses also help the company in different market research. In addition to this, the application of the SEM is useful in terms of handling and distributing all the financial resources in all the required areas. The analysis done by the SEM helps to develop ideas about the spending picture of the company. This helps to find out the areas where unwanted spending is observed. Modification of such areas is also performed by SEM. Usability of the products and market reach of the products are also increased by SEM.

The purpose of using the structural equation modeling

The benefits offered by the SEM method contribute to the development of the purpose of selecting the structural equation model over others. The SEM can be used to increase the brand value of the company in different markets. SEM helped to improve the financial operations and this resulted in the enhancement of the capital of the business. When the business capital got enhanced then automatically the financial resources of the business organizations got promoted and this helped to increase the overall equity of the brand in different markets. The

identification of the key drivers is also associated with the measurement process of the SEM. That means when the key driving forces of the business operations are identified then the authorities can be able to use those drivers to increase the outcome of the business operations. Investigation of the multiple factors also proceeds with the SEM. mediating factors that can create a strong impact on the business are also monitored and controlled by SEM.

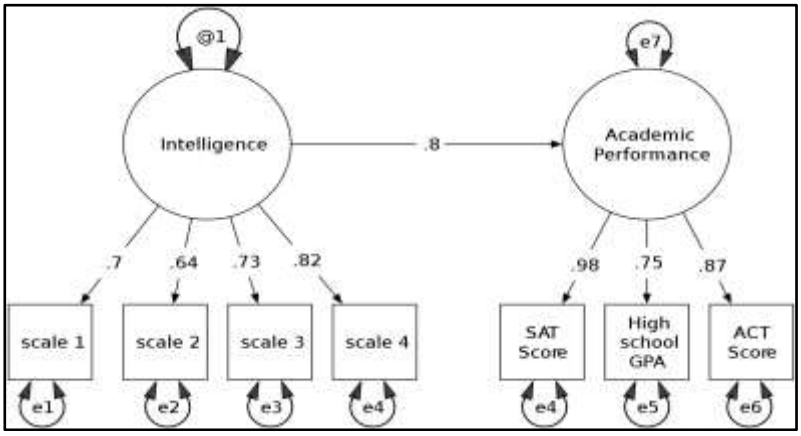

Figure 4: The purpose of using the structural equation modeling

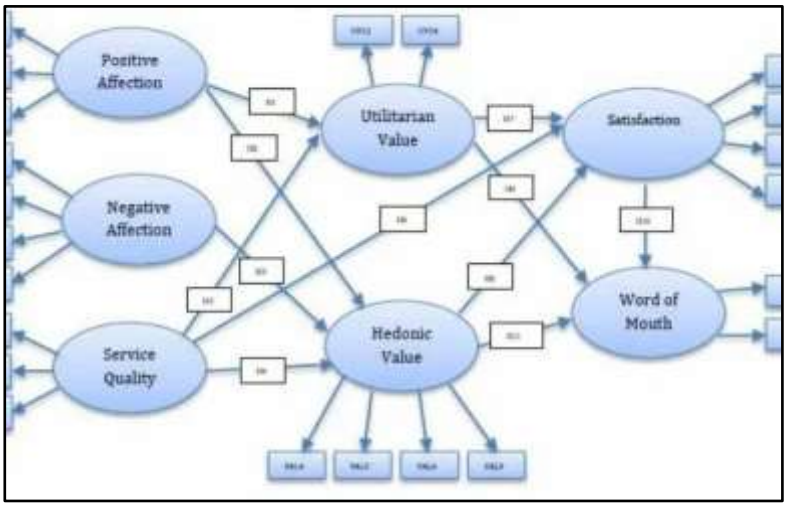

Figure 5: Application of Structural Equation Modeling in Business

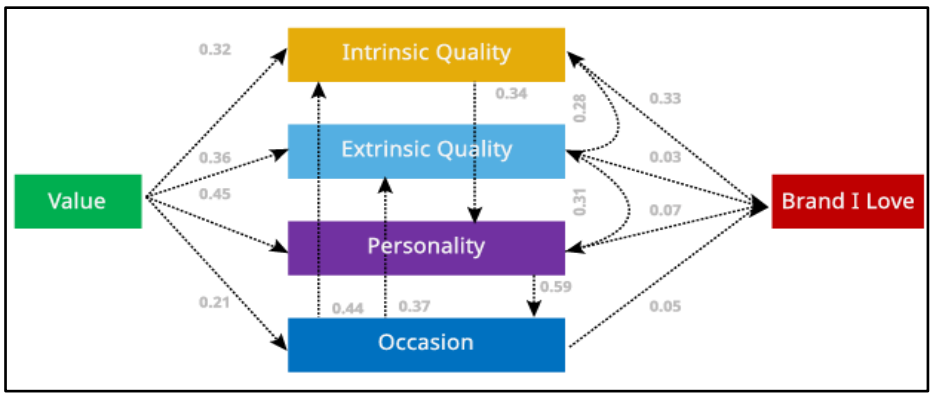

Figure 6: Benefits of using Structural Equation Modeling in Business

DISCUSSION

SEM is a useful tool and is applied to the analysis of the statistical data that are circulated in the investigation work of the business. While performing the business operations different types of statistical information are generated which further require a high level of maintenance (Wanasida et al. 2021). Moreover, such statistical information also helps to develop an idea about the prediction of the outcomes of the business operations. Hence the application of the structural equation model helps to understand the statistical data and use them in the betterment of the business procedures. With the help of the analysis of the statistical data, the outcome of the business operations is primarily predicted. This prediction helps to plan the whole business setup along with the marketing strategy. In association with this, the management of different financial operations is also performed by the SEM. when the SEM is involved in managing the financial operations then the development of the budget, finding the unwanted expenses, and identifying the factors responsible for impacting the business operations (dos Santos & Cirillo, 2023). SEM finds out the areas where high levels of expenses are required and which are also not necessary as well.

Conflicts of interest: No conflicts of interest are present in the conducted article stated by the author.

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