The Research on the Manufacturing Enterprise Organizational Innovation Path Performance Estimated Based on Pls Path Model

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Abstract: In order to estimate enterprises organizational innovation path performance levels scientifically and efficiently, this thesis conclude three different organizational innovation path based on enterprise organizational innovation path operation reality character: radical organizational innovation path, mild organizational innovation path, conservative organizational innovation path. Then according to the different organizational innovation path performance set the theatrical model and relate research hypothesis. And based on the above discussion, this thesis constructs enterprise organizational innovation path performance estimated model based on PLS path model, then give concrete estimated and evaluated process, and use the PLS-SEM method to vivificate the theatrical model. The final answer shows: the enterprises organizational innovation path performance estimate model fit for the single dimension precondition have optimal convergence effect and explain ability, and high level of the fitting, we can also know the radical organizational innovation path performance effect degree is the highest, the mild organizational innovation path performance effect degree is the second, and the conservative organizational innovation path performance effect degree is the lowest.

1. Introduction

The most important issue for Manufacturing is how to describe organizational innovation path performance exactly [1]. But there are so many kinds of organizational innovation path types, and different organizational innovation path can lead to different organizational innovation whole performance [2]. So this research induces three different organizational innovation paths: radical organizational innovation path, mild organizational innovation path, conservative organizational innovation path which based on dynamic evoluation perspective [3]. Then the paper constructs the three paths performance impact on organizational innovation whole performance estimat model. And use the PLS-SEM model to Vivificate the above theoretical model, and then give concrete analysis for the empirical model. Then based on the scientific answer, give reasonable advice to enhance the Manufacturing organizational innovation.
2. The Construction of the Manufacturing organizational Innovation Path Performance and Research Hypothesis

We should analysis the Manufacturing organizational innovation path from dynamic and stable perspectives. From dynamic perspective, the organizational innovation path impact on organizational innovation performance process is through enhance the radical organizational innovation path, mild organizational innovation path, conservative organizational innovation path performance level, promote different path efficiency, then deepen the different path impact on the organizational innovation whole performance. So based on the above discussion, this thesis construct the Manufacturing organizational innovation path performance estimate model

The enhancement of the Manufacturing enterprise organizational innovation path performance is the answer of the deepening different organizational innovation path performance. The final destination of the different organizational innovation path performance is through promoting path performance efficiency to enhance the organizational innovation whole performance. So the research gives following hypothesis:

H1: radical organizational innovation path performance impact on mild organizational innovation path performance directly.
H2: mild organizational innovation path performance impact on conservative organizational innovation path performance directly.
H3: conservative organizational innovation path performance impact on radical organizational innovation path performance directly.
H4: radical organizational innovation path performance impact on organizational innovation whole performance directly.
H41: strategy innovation performance impact on organizational innovation whole performance directly.
H42: technical innovation performance impact on organizational innovation whole performance directly.
H43: organization ability innovation performance impact on organizational innovation whole performance directly.
H5: mild organizational innovation path performance impact on organizational innovation whole performance directly.
H51: business mode innovation performance impact on organizational innovation whole performance directly.
H52: client service innovation performance impact on organizational innovation whole performance directly.
H53: stimulate innovation performance impact on organizational innovation whole performance directly.
H6: conservative organizational innovation path performance impact on organizational innovation whole performance directly.
H61: department associate innovation performance impact on organizational innovation whole performance directly.
H62: organization institution innovation performance impact on organizational innovation whole performance directly.
3. Empirical Research Design

3.1 Model Index System

This part construct SEM (structure equation model) according to Manufacturing enterprise organizational innovation path performance, and the first potential variables strategy innovation performance (SIP), technical innovation performance (TIP), organization ability innovation performance (OAIP) are the second potential variables radical organizational innovation path (ROIPP) estimate indexes. The first potential variables business mode innovation performance (BMIP), client service innovation performance (CSIP), stimulates innovation performance (STIP) are the second potential variables mild organizational innovation path (MOIPP) estimate indexes. The first potential variables department associate innovation performance (DCIP), organization institution innovation performance (OIIP) are the second potential variables conservative organizational innovation path (COIPP) estimate indexes.

3.2 Questionnaire Survey Design

The Questionnaire survey sample is origin from our nation Manufacturing enterprises. The main objects are china Manufacturing science and Technology Corporation, and the subordinate corporations. And send asking papers to relate management stuff and scientific person to make the main asking item. But single question can only reflect one aspect of the Questionnaire answer, so in order to reflect the whole part of the measure chart dimensions, this research use the multi-investigation methods under the stabilize the qualification and reliability.

4. Data Analysis

4.1 Variables Reliability and Validity Verification

This research use cronbach index vivificate, if $a\geq0.7$ we can accept the reliability. And Hair even other scholars think if all the variables coefficient loading index is larger than 0.3, we can recognize it as obvious, if all the variables coefficient loading index is larger than 0.4, we can recognize it as important, if all the variables coefficient loading index is larger than 0.5, we can recognize it as most important.

4.2 Pls-Sem Model Analysis

In order to guarantee the vivificate the organizational innovation path model exactly, we use the liseral software to construct the PLS-SEM model, then vivificate the fitting degree level of the theatrical model and the realistic data. According to the research on the path answer scale by Cohen, if the absolute answer of the connection relationship between path coefficients and potential coefficients is smaller than 0.1, we consider it belongs to bad consequence, if the absolute answer is locate between 0.1~0.5, we consider it belongs to normal consequence, if the absolute answer is larger than 0.5, we define it belongs to harsh consequence.

5. Conclusions

This research construct and vivificate the Manufacturing enterprise organizational innovation path performance estimate model which based on theatrical analysis and the empirical analysis. The final answer shows: Manufacturing enterprise organizational innovation path performance can reflect on
three dimensions: radical organizational innovation path performance, mild organizational innovation path performance, conservative organizational innovation path performance, and the three dimensions accelerate each other, and then enhance the organizational innovation whole performance.

According to the research achievements, the Manufacturing enterprise should enhance the large impact of the path elements to promote the organizational innovation whole performance; this strategy can not only accelerate the path performance impact on each other, but also can promote the organizational innovation whole performance level. When the enterprise proceed the radical organizational innovation path , it should focus on the input and output level of new production, new technical, at the same time, it should also enhance the human resource development and business mode and core competition ability, when the enterprise proceed the mild organizational innovation path, it should focus on promote client service innovation performance and enhance associate network, consolidate the inner foundation and enhance performance stimulation. When the enterprise proceed the conservative organizational innovation path, it should focus on the association of the Manufacturing enterprise department, the enhancement of the association is focus on the frontier period of the production, for considering the after-sale service and merchandize competition, the level of after-sale service and merchandize competition is depend on frontier associate performance level, then we should also take the organization institution innovation performance into consideration.

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References