The Construction of the Manufacturing Enterprise Organizational Innovation Path Forming Model and Demonstration Research

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Abstract: This thesis is analyzed on the Mechanism of Influencing Factors of Manufacturing Enterprise Organizational Innovation Path from Static Perspective. On the basis of proposing the correlation hypothesis and constructing the theoretical model, the partial least squares structural equation model is used to verify the correctness of the theoretical model. Based on the analysis of the verification results, the static mechanism of Manufacturing Enterprise organizational innovation path influence factors is discussed from different perspectives, different stages of development and different enterprise samples. The final answer shows: there exists direct effect relationship between different organizational innovation path, and the traditional path, slow path, radical path all can have the direct effect to the organizational innovation, the rational path display a strongest effect on organizational innovation.

1. Introduction

Manufacturing Enterprise is locate on the top of the traditional manufacture industry, it express the character of high-technology, great additional production, huge develop space, industry-push influence. The'"12th five year plan" of Manufacturing enterprise development blueprint' which draft by ministry of industry and information technology illustrate that the Manufacturing enterprise is the nation logo of strategy industry and equipment manufacture ability. Our nation is located at the economic transformation period, it's significant to accelerate the Manufacturing enterprise to the higher level, and also it's an important path to fulfil the china dream of "created by china". Innovation is the key part of Manufacturing enterprise development, "12th five year plan" is the important period of Manufacturing enterprise development, so it has great meaning to discuss the Manufacturing enterprise innovation issue. But the Manufacturing enterprise has many disadvantages, such as rely on investment excessively, have weak independent innovation ability, building redundant project and excessive capacity issuers. When the enterprise focus on the technology innovation, but the economic benefit face the " income trap"; On the other hand, set aerospace enterprise an example, it use the traditional " commander in chief, chief engineer" navigate system, although this system improve the efficiency of organization working, but under the production urgency situation, it needs to organizational innovation. While it can't solve the above

issues through discussing single innovation behaviour, we need to analysis the innovation needs, then illustrate different innovation behaviour to fulfil the innovation destination, as the organizational innovation path. This paper is based on the collection of organizational innovation path influence factors and the factors impact documents use economic theory, organization theory and system dynamic, simulation methods to analysis the organizational innovation path influence factor impact mechanism. To analysis Manufacturing enterprise organizational innovation path influence factors affect mechanism from stable perspective. Use PLS-SEM to verify the correctness of the hypothesis and theoretical model. Then illustrate the organization ability, organization environment, organization resource mutual relations according to verify answer. Then analysis organizational innovation path influence factors effect mechanism from different behaviour-orient, different develop period, different enterprise sample perspectives. This thesis had token deep consideration in conservative organizational innovation path, mild organizational innovation path and radical organizational innovation path impact on the organizational innovation ability, then construct muti-level organizational innovation evolution model, then use the SEM (structure equation model) and asking paper method to verify the organizational innovation dynamic model, then give a few reasonable theatrical suggestions. And take the empirical as the provident, give some suggestions which can promote the enterprises organizational innovation ability[1].

2. Theatrical Model and Research Hypothesis

In modern world enterprises, an organizational innovation is not only a simple revolution process, but also a complex work which completed by relate actions, and the innovation activity is not only affected by the inside motivation, outside motivation, the coupling of the inside motivation, outside motivation, but also need to exchange the information from inside and outside atmosphere. So the definition of the organizational innovation path is coordination planning of the organizational innovation activities within different enterprise grow period which under the impact of the inside motivation, outside motivation and the coupling of the inside motivation, outside motivation. But to analysis the organizational innovation path, we should distinguish it from stable and dynamic viewpoint. We should consider the organizational innovation content, the outside innovation channel. The so- called dynamic viewpoint means the organizational innovation stand by muti-channels (conservative organizational innovation path, mild organizational innovation path and radical organizational innovation path), to improve the organizational innovation ability, regulate the organizational innovation mode, and fasten the organizational innovation speed, then deepen the enterprise organizational innovation. Based on the above theatrical analysis, this thesis constructs the organizational innovation path dynamic evolution model

Then we can give following hypothesis:

H1: conservative organizational innovation path had positive impact on the mild organizational innovation path.

H2: mild organizational innovation path had positive impact on the radical organizational innovation path.

H3: radical organizational innovation path had positive impact on conservative organizational innovation path.

H4: conservative organizational innovation path had positive impact on the organizational innovation level.

H41: department coordinate innovation had positive impact on the organizational innovation level.

H42: organization institution innovation had positive impact on the organizational innovation level.

H5: mild organizational innovation path had positive impact on the organizational innovation level.

H51: business mode innovation had positive impact on the organizational innovation level.

H52: customer service innovation had positive impact on the organizational innovation level.

H53: stimulate test system innovation had positive impact on the organizational innovation level.

H6: radical organizational innovation path had positive impact on the organizational innovation level.

H61: strategy innovation had positive impact on the organizational innovation level.

H62: technical innovation had positive impact on the organizational innovation level.

H63: organization ability innovation had positive impact on the organizational innovation level.

3. Data Analysis

This thesis send asking papers to china aerospace science and technology corporation subordinate first chamber, second chamber and third chamber. The asking paper uses the Likert five evaluate method to measure the index. Then according to the asking paper content, 1-5are correspond "not agree completely, not agree, no problem, agree, completely right". Then take the relate enterprise organization innovation path and innovation evolution into consideration, and proceed ex-research work. This investigation send 548 asking papers, and collect 516 paperback, the efficiency paper are 452, the efficiency collect rate is 87.6%. In this study, we analysed the difference between the obtained sample data, and the purpose of the sample data difference analysis is to test the validity of the acquired data. The research of Manufacturing enterprise organization innovation path influencing factors mechanism is to study the different sample enterprises innovation influence factors impact on organizational innovation path. Since the data collected in this study have a certain degree of discrepancy, we need to analyze the differences in the fitting of the samples in order to be able to analyze the samples after fitting. The one-way ANOVA was used to analyze the sample data according to the industry category, the age distribution and the enterprise scale distribution. Through the analysis of one-way ANOVA, we can see that the probability of F probability of each index in different industries, different years and different sizes is higher than 0.05, which indicates that there is no significant difference in the measured value of sample enterprises in different backgrounds Differences that can be fitted to the analysis. Then we analyzed the reliability and validity of the theoretical model. The results of the normal distribution test are shown in Table 3. It can be described that the different measure of the influencing factors does not strictly follow the standard normal distribution[2].

4. Empirical Research

According to the results of the initial structural equation model test, the modified variables (Modification Index, MI) are used to modify the variables that do not meet the requirements in the model. In order to be consistent with the conclusion of qualitative research, the covariance relationship between the residuals is used to correct the degree of deviation of the model. Table5 lists the measurement results and the results of the fitting evaluation index. From the measurement results, the actual measurement values are within the recommended standard, and the modified structural equation model and the empirical analysis are verified. The degree of data fit is high.

Hair and other scholars believe that if the factor load exceeds 0.3, it is significant; if higher than 0.4, it is important; if higher than 0.5, it is very significant. The latitudinal variables in the structural equation model of Figure 3 show that the path coefficients are higher than 0.5 between the second order factors, indicating that the main observation variables can explain the potential variables well and the model does not need to be re-estimated.

In order to further clarify the causal relationship between the variables and the degree of contribution of the factors, the significance of the path of the second order factor is verified. AMOS software can not only calculate the estimation factor of second-order factor function, but also can calculate the different path between the standardized path coefficients. The criteria for evaluation are generally those of the criteria to be evaluated. The standard t value should be higher than 0.2 and the significance level is below 0.05. The values of the standard and significance levels in this study are shown in Table 6. The latency of all latent variables was higher than 2, and the significance level was also lower than 0.05. Assume that H1, H2, H3, H4, H5, H6 pass the test[3].

5. Conclusion and Recommendation

This thesis is based on the construction of the enterprises organizational innovation path dynamic evolution theatrical model and research hypothesis, use the SEM method to verify and inspect the theatrical model. The final answer shows that the three kinds of the innovation path show obvious impact on the enterprises organizational innovation path. The radical organizational innovation path had biggest impact, the mild organizational innovation path locates second, the conservative organizational innovation path is the last. And when the enterprises begin to innovate, it should pay attention to the organization institution, business model innovation and the technical innovation impact on the organizational innovation level.

Acknowledgement

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