

Achievement Motivation and Job Performance of Township Cadres: The Mediating Role of Thinking Style and Professional Knowledge

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Abstract. Achievement motivation, scientific thinking and knowledge skills are three levels of personal characteristic variables are an important part of human competence, they have a very important role in determining their own work performance. But in reality, people tend to ignore the achievement motivation, which is the most profound variable and the biggest influencing factor. At the same time, in the original theory, the intermediary path of how the achievement motivation affects the work performance is also very vague. Therefore, this paper adopts the method of empirical research to apply the theory in the field of public service work of township cadres, design a scale to measure these latent variables, and collect data from township cadres in Hebei Province by using questionnaire method. The research results show that the mediating effect between the achievement motivation of township cadres and their own work performance is a complete mediating effect. At the same time, there are three routes for its influence to be transmitted through scientific thinking and knowledge skills, which well proves the correctness of the theory and clarifies the ambiguous explanations of the theory.

Keywords: Competency, township cadres, Achievement motivation, thinking style.

1. The proposal of the problem

In the government work report in 2005, the Chinese government for the first time put forward the concept of creating a service-oriented government, which has since opened the prelude to the construction of service-oriented government in our country. In many subsequent government meetings, the importance of this aspect has been emphasized, especially in 2017, the Chinese government issued the "Opinions on Strengthening the service capacity of township governments" document further required the local township governments to speed up the transformation of functions, strengthen the pace of service functions. Among them, the township cadres are the front-line staff of the township government, and they represent the image of the township government, so their competency level of service work must also represent the township government's competency level of service work, which has a very important positive significance for the construction of service-oriented government of the township government in the most grass-roots units in our country.

2. Theoretical basis and research hypothesis

Choose competency theory as the theoretical basis. This theory was developed gradually after the concept of "competence" was put forward by David McClelland, a famous American organizational behavior researcher. As for the definition of competency, the Great American Dictionary holds that competency is an abstract and general concept, which refers to a state or comprehensive quality that an individual can achieve the performance required by a certain position. Therefore, it needs to be refined into competency qualities. Only after an individual has all the competency qualities required by a given position, can it be formed into the competency of the position. The ultimate goal of competency is to make a person competent for a certain job, so the measurement of a person's competency must be measured by performance. A person's high performance, it shows that a person's competency level is high; A person's performance is low, it shows that a person's competency level is low. [1]

This paper adopts the definition of competency by the International Institute of Human Resource Management: the characteristics or characteristics possessed by an individual to achieve excellent

performance in one or some specific positions, including skills, knowledge and attitude; The way of thinking and mindset; And specific combinations of drive, social motivation and self-awareness. From this comprehensive definition, it is clear that the elements of these combinations have been summarized into four levels, as shown in Figure 1, which is divided into four levels, the top of the figure is "performance behavior", that is, the performance of the individual in the specific position. The three levels below "performance behavior" together determine the performance behavior of an individual at work. In the following three levels, there is a progressive relationship, the darker the factor plays a more stable role in determining the individual's behavior performance; That is to say, it is the level of "self-consciousness -- drive -- social motivation" that determines the individual characteristics such as the way of thinking and the way of thinking, and then the factors such as the attitude, knowledge and skills possessed by the individual play a specific role, and then these factors jointly determine the behavior of the individual in actual work and life. [2]

Following the above theoretical ideas, let's make a logical deduction based on it. In the theory, the performance behavior level is the highest level in the theory, and the other three levels are its components. Therefore, this paper chooses the public service performance of township cadres as the dependent variable. Select "the level of town cadres' mastery of professional knowledge of public service", "the scientific level of town cadres' thinking mode of public service", "the strong level of achievement motivation of town cadres" as independent variables. The above hypothesis is a one-way influence relationship in the theoretical train of thought, and in the theoretical train of thought, there is an intermediary relationship between the variables. According to the competency theory, there is a progressive relationship in the three levels below "performance behavior", that is, the level of "self-consciousness -- drive -- social motivation" determines people's "thinking mode and thinking mode", and the level of "thinking mode and thinking mode" determines the level of "knowledge, skill and attitude", which plays a role through specific factors such as attitude, knowledge and skill.

Therefore, combined with the two path relations in the above theory, the relationship between the variables in this paper should be shown as follows: First, each independent variable has a one-way positive impact on work performance. The second is the intermediary path relationship in the theory, that is, "achievement motivation of township cadres" affects "public service performance of township cadres" through the intermediary variables of "scientific thinking of township cadres" and then "professional knowledge and skills of township cadres in public service". This is the "hierarchical progressive relationship" in the theoretical thinking, but the theory does not explain whether there is a hierarchical impact relationship between the levels, that is, whether the "achievement motivation of township cadres" can skip the intermediary of "scientific thinking of township cadres" and directly affect the "performance of township cadres' public service work" through the intermediary of "professional knowledge and skills of township cadres' public service". There is also whether the "achievement motivation of township cadres" can directly affect the "performance of township cadres' public service work" through the intermediary of "scientific thinking of township cadres", without the chain intermediary relationship to transfer the impact. To sum up, there should be the above three intermediary paths in this paper, which together constitute the theoretical structure chart below.

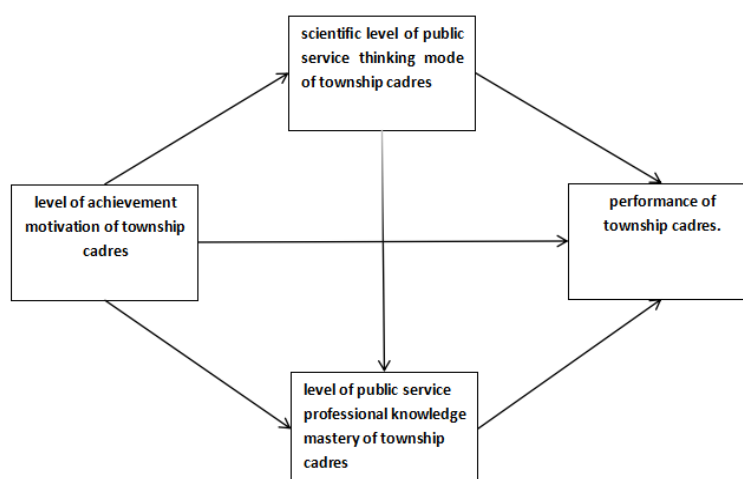


Fig. 1 Theoretical model of public service competence improvement of township cadres

3. Survey description and simple data description

3.1. Sample source and structure

This paper uses the questionnaire survey method to collect data from township cadres in Hebei Province. The sampling method is quota sampling. 209 questionnaires were distributed in this paper, 200 of which were valid. In this paper, 9 points are given for respondents' misconduct questionnaires, and the elimination method is to calculate the variance of each respondent in all constructs. If the variance of a respondent across multiple constructs is not more than 0.25 points, it can be found that the respondent is misconduct [3].

In terms of age distribution, the samples in this paper tend to be younger, mostly concentrated in the range of 25-30 years old. The distribution in different age groups is as follows: 40% in the group of 20-29 years old, 20.5% in the group of 31-39 years old, 30% in the group of 40-49 years old, 9.5% in the group of 50-59 years old. The gender distribution of the sample was as follows: 126 males accounted for 63%, and 74 females accounted for 37%. In terms of education distribution, 9 people had high school education or below, accounting for 4.5%; 55 people had junior college education, accounting for 27.5%; 117 people had undergraduate education, accounting for 58.5%; 19 people had graduate education or above, accounting for 9.5%. In the distribution of administrative levels: 144 section staff accounted for 72%, 36 deputy director section staff accounted for 18%, director section staff and above 20 people accounted for 10%. In terms of political status, 63.5% are members of the CPC (127), 1.5% are members of 3 democratic parties, 20% are members of 40 masses, and 15% are members of the Communist Youth League (30).

The sample structure is very similar to the current structure of the township, very consistent with the reality, in line with the overall characteristics of the township cadre group, we can see that the sample has a certain representative.

3.2. Measurement of concept

Measurement of public service performance of township cadres. According to the definition of the public service work should be provided by the town government to design indicators for measurement. The indicators are A1. Safeguard the rights and interests of special groups in rural areas; A2. Rural culture and sports services; A3 rural public health service; A4 to mediate disputes and resolve conflicts; A5. Rural poverty alleviation. The Likert7 score system is adopted to increase the degree of differentiation, and the interviewees are asked to grade their work performance in these 5 aspects by filling in a questionnaire. No neutral item (don't know/don't want to answer)

Measurement of the level of public service professional knowledge mastery of township cadres. Design indicators based on the definition of public service ability in the national document "Opinions on Strengthening the Service Capacity Building of Township Governments" [4] and the Framework of General Capacity Standards for National Civil Servants (Trial Implementation) [5]. The indicators are: B1. Professional knowledge related to social security; B2. Professional knowledge related to legal protection; B3. Professional knowledge related to culture and sports; B4. Expertise in dealing with major crises and disasters; B5. Professional knowledge in rural urban construction and development planning. The scoring method is Likert 7 point system. No neutral item (don't know/don't want to answer)

Measurement of scientific level of public service thinking mode of township cadres. According to the definition of public service ability in the national document "Opinions on Strengthening the Service capacity building of Township Governments" and the Framework of General Capacity Standards for National Civil Servants (Trial). There are four indicators in total, which are as follows: C1. I rely more on theoretical analysis than experience in my work; C2. When dealing with problems, I always analyze first and then practice; C3. I always actively listen to the opinions of my colleagues in my work; C4. I always actively listen to the suggestions of leaders in my work; C5. I will always actively listen to the opinions of the masses in my work. Please fill in the questionnaire and ask the respondents to what extent they agree with the statements in these five aspects. The score is also on a 7-point scale. No neutral item (don't know/don't want to answer)

Measurement of the level of achievement motivation of township cadres. According to the definition of public service ability in the national document "Opinions on Strengthening the Service capacity Building of Township Governments" and the Framework of General Capacity Standards for National Civil Servants (Trial Implementation) [5]. The four aspects of the scale designed in this paper are as follows: D1. I will take the initiative to fight for promotion opportunities; D2. Doing this job can create conditions for promotion; D3. In this job, I can give full play to my talents; D4 This job can realize my personal value in life. Please fill in the questionnaire and ask the respondents to what extent they agree with the statements in these five aspects. The score is also on a 7-point scale. No neutral item (don't know/don't want to answer)

3.3. Measure the concept

SPSS25.0 and Amos24.0 were used for all data analysis

4. Research results

4.1. The structural validity and common method bias of the questionnaire

All the data in this study came from self-reports, and each variable was collected at the same time, so there may be common method bias in the measurement. The common method test and source identification method uses the addition of covariant factor method, that is, a common factor is added to the CFA model, and it is loaded on all indicators, and all paths are bound to be equal, so it is equivalent to reducing one degree of freedom. As a result, comparing the CFA model without the common method bias factor, the difference between the two models at the significance level of 0.05 and the χ^2 value of 1 degree of freedom is less than 3.84, indicating that the common method bias does not exist. [6] In essence, this method further decomposed the error into random error and systematic bias according to the error characteristics, which is a further extension of the Spearman-Brown classical measurement model, that is, X (observed value) = T (true value) + e_1 (random error) + e_2 (systematic bias). If the source of common method bias is suspected, you can continue to increase the common method factor, which is the MTMM model. [7]

Table 1 Final result of confirmatory factor analysis adaptation index

Fitting indicators	X ²	DF	X ² /DF	NFI	CFI	GFI	AGFI	RMSEA
Standard value	-	-	< 3	> 0.9	> 0.9	> 0.85	> 0.9	< 0.08
No CMB factor model was added	376.68	146	2.58	0.921	0.927	0.871	0.908	0.0689
Add the CMB factor model	376.58	145	2.60	0.921	0.927	0.871	0.978	0.0688

By comparison with the above model without common method bias factor, the difference between the two models at the significance level of 0.05 and the X2 value of 1 degree of freedom is 0.1, which is far less than 3.84. The difference between the two models is one step significant, that is, common method bias is not a problem in this measurement.

Table 2 Results of confirmatory factor analysis and reliability test

Variables	Indicators	Standardized load	Average Variance Extraction (AVE)	Composit Reliability (CR)
1	A1	0.81	0.538	0.853
	A2	0.70		
	A3	0.72		
	A4	0.75		
	A5	0.68		
2	B1	0.80	0.556	0.863
	B2	0.81		
	B3	0.74		
	B4	0.72		
	B5	0.66		
3	C1	0.71	0.543	0.856
	C2	0.80		
	C3	0.74		
	C4	0.73		
	C5	0.70		
4	D1	0.77	0.532	0.819
	D2	0.65		
	D3	0.72		
	D4	0.77		

The results of individual index adaptation of CFA model show that the standardized load of explicit variable corresponding to each latent variable is greater than 0.5 (standardized regression coefficient), which has aggregation validity. The mean variance extraction value of each concept is greater than 0.5, that is, the indicators under the same concept have correlation and convergence validity. The CR value of the combined reliability is greater than 0.7, indicating that the measurement questions have good consistency, and the measurement reliability can be guaranteed.

Table 3 Comparison of fitting indicators for confirmatory factor analysis of competitive models

No.	Fit Metrics	X ²	DF	X ² /DF	NFI	CFI	RMSEA	Model comparison	Δ X	Δ df
1	Original model	376.68	146	2.58	0.921	0.927	0.0689	-	-	-
2	Three factor model one	900.30	150	6.002	0.821	0.836	0.1071	2 vs 1	523.62 ***	4
3	Three factor model two	1495.05	150	9.967	0.734	0.751	0.1519	3 vs 1	1118.37 ***	4
4	Three factor model three	1059.75	150	7.065	0.809	0.820	0.1342	4 vs 1	683.07 ***	4
5	Two-factor model	1321.40	151	8.751	0.771	0.787	0.1410	5 vs 1	944.72 ***	5
6	Single factor model	2551.32	152	16.785	0.539	0.587	0.1834	6 vs 1	2174.64 ***	6

Note: *** means p is less than 0.01

Three-factor Model I: mtv+thought,ks,ach

Three-factor Model two: mtv,thought+ks,ach

Three-factor Model two: mtv,thought+ks,ach

Two-factor model: mtv+thought,ks+ach

One factor model: mtv+thought+ks+ach

After meeting the convergence validity test, the discriminative validity test is carried out, that is, the test measures that there is no correlation between the indicators of different concepts, and then adds structural evidence to this measurement. The verification method is to compare the fitting indexes of competitive models, that is, to form a new model through dimensionality reduction of the conceptual structure of the original model and compare it with the fitting indexes of the original model. The results show that from the original four-factor model to the single-factor model, the fitting indexes gradually deteriorate and cannot reach the acceptance level. In order to further add evidence for the rationality of the original model. There is no correlation between the indicators that measure different concepts.

4.2. Model fitting results

Structural equation was used to test the hypothesis model of the theory, and the method of maximum likelihood was used to estimate it. Among them, the test method of intermediary effect is referred to the test method proposed by Wen Zhonglin (2014), namely bootstrap method. This method is a non-parametric test method, that is, the sample is regarded as a pseudo-population, from which samples are continuously sampled to form a new sample, and then the product coefficients of multiple new samples are calculated to form a confidence interval, and the values from 2.5% to 97.5% are taken to form a 95% confidence level interval. If the interval does not contain 0, it indicates that the intermediary effect exists. [8] Hayes (2018) suggested that the number of samples for bootstrap should be 5000, so that the product coefficient value of random sampling would change very little.

[9] Follow the above method and conduct the test. The structural equation fits the model as a whole as follows.

Table 4 Results of structural equation fitting

Fitting index	X ²	DF	X ² /DF	NFI	CFI	GFI	AGFI	RMSEA
Standard value	-	-	< 3	> 0.9	> 0.9	> 0.85	> 0.9	< 0.08
Theoretical model	418.69	149	2.81	0.917	0.916	0.862	0.903	0.712

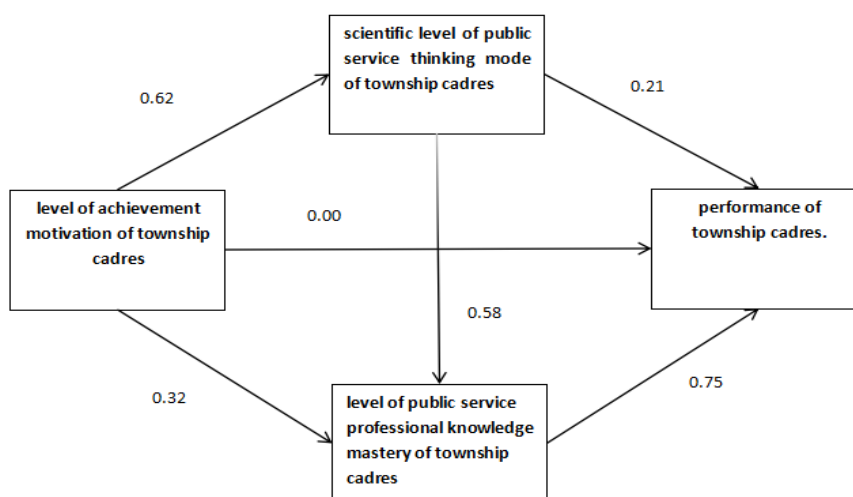


Figure 2 Results of fitting the mediating model of achievement motivation

4.3. Direct effect analysis

The results show that the variables of professional knowledge and skills and scientific thinking have a significant positive impact on the performance of township cadres' public service work. Under the condition of mutual control, the effect of professional knowledge and skills on the performance of township cadres' public service work is 0.750 ($P \leq 0.05$), and the effect of scientific thinking on it is 0.212 ($P \leq 0.05$). This shows that if individual township cadres continue to learn work-related knowledge and skills and enrich their knowledge and skills reserves, their performance in public service work will be significantly improved. At the same time, if they continue to cultivate the scientific way of thinking, their work performance will also be significantly improved.

It is found that the intensity of achievement motivation of township cadres has a significant positive impact on their own knowledge and skills and scientific level of thinking mode. The effects were 0.317 ($P \leq 0.05$) and 0.618 ($P \leq 0.05$), respectively. At the same time, the scientific level of thinking mode also has a significant positive effect on their own knowledge and skills, the effect is 0.576 ($P \leq 0.05$). This result shows that the stronger the achievement motivation of township cadres, it will stimulate their motivation to work hard, and constantly improve their scientific level of thinking mode and knowledge and skills. Then, when the scientific level of their thinking mode is improved, their knowledge and skills reserves will also be significantly improved.

The research results show that there is no direct positive relationship between achievement motivation and job performance, which indicates that the relationship between these two variables is a completely mediating relationship, that is, the influence of achievement motivation on job performance is completely transmitted through mediating variables. This will be further confirmed in the following paper.

4.4. Indirect effect analysis

At 95% confidence level, the mediating effect test of achievement motivation is shown in Table 4. In the hypothesis of the previous theoretical model, we believe that there are three paths for

achievement motivation to affect work performance. First of all, the estimated value of the intermediary effect points of achievement motivation affecting its work performance through scientific thinking is 0.131. The 95% confidence interval of Bootstrap test does not contain 0, indicating that the intermediary effect of this path is real in the whole. Second, the estimated value of the achievement motivation of township cadres affected their work performance by their professional knowledge and skills is 0.238, and the 95% confidence interval of the Bootstrap test does not contain 0, indicating that the mediating effect of this path in the overall population is real. Finally, looking at the hierarchical progression relationship in the original hypothesis of the theory, the estimated value of the intermediary effect point in which achievement motivation first passes through scientific thinking and then through knowledge and skills affects work performance is 0.267, and the 95% confidence interval of the Bootstrap test method still does not contain 0, indicating that the chain intermediary effect does exist in the whole. In the above direct effect test, the direct effect of achievement motivation on work performance ($c' = -0.049$) is not significant ($p \geq 0.05$). Therefore, the influence of achievement motivation on work performance is completely mediated by scientific thinking and knowledge skills. The estimated indirect total effect point of achievement motivation is 0.635, which is very significant (full score: 7).

Table 5 Results of indirect effect analysis of achievement motivation

Model and path coefficient	Effect	BootSE	(BootLLCI, BootULCI)
Indirect total effects:			
mtv→ach	0.635	0.062	0.512 0.765
Specific mediating effects:			
mtv→thought→ach	0.131	0.043	0.051 0.217
mtv→ks→act	0.238	0.064	0.111 0.364
mtv→thought→ks→act	0.267	0.055	0.173 0.394

5. Conclusion and discussion

Whether and to what extent the achievement motivation of township cadres affects their own work performance through scientific thinking and professional knowledge and skills related to service work is the core question to be answered in this study. Through empirical research, we reach the following conclusions: (1) Achievement motivation itself has no direct positive impact on work performance, but it has significant positive impact on scientific thinking and knowledge skills. (2) Scientific thinking and knowledge skills have a significant positive impact on the public service performance of township cadres, and scientific thinking also has a significant impact on the mastery level of knowledge and skills. (3) Scientific thinking and knowledge skills completely mediate the influence of achievement motivation on work performance. There are three ways to transfer the influence: "achievement motivation of township cadres" affects "public service performance of township cadres" first through "scientific thinking of township cadres" and then through "professional knowledge and skills of township cadres in public service"; The "achievement motivation of township cadres" affects the "performance of township cadres' public service work" through the "professional knowledge and skills of township cadres' public service"; "Achievement motivation of township cadres" affects "public service performance of township cadres" through "scientific thinking of township cadres".

Through the above conclusions, we can realize that the achievement motivation affects the performance of the township cadres through the two mediums of scientific thinking and knowledge and skills. Achievement motivation is a deeper variable that is not easy to be found, while the other two variables are shallow variables that are easy to be observed. This tells us that when improving the work performance of township cadres, we should not only pay attention to the cultivation of knowledge skills and scientific thinking at a shallow level, but also pay attention to the construction of achievement motivation at the most fundamental and deepest level. This also breaks people's common-sense misunderstanding. Although it can be seen that knowledge, skills and scientific

thinking have a great improvement on their own work performance, they contain more mediating effects of achievement motivation, and the variable that has the biggest positive impact on work performance is achievement motivation. Although achievement motivation itself seems to have no direct relationship with work performance, it is transmitted through scientific thinking and knowledge skills, so we cannot ignore this most important factor.

From a theoretical point of view, this research result is a theoretical test of the competency theory, which proves the correctness of the competency theory and its applicability in the field of public service of township cadres and points out aspects for the improvement of public service performance of township cadres in the future. At the same time, this result also further clarifies and explains the competency theory. In the original theory, there is only a progressive relationship (intermediary relationship) between the variables at three levels. However, because there are two levels of intermediary, the explanation of the path relationship is vague, which will cause cognitive confusion. Therefore, this study tells us that there is a leapfrog progressive relationship in the theory, that is, there is both a chain mediation relationship and a univariate mediating effect transmission. There should be three path relationships between levels. Finally, achievement motivation does not directly affect job performance as the theory thinks, but completely mediates the effect, which is a further explanation of the original theory. All in all, this finding has very important theoretical implications.

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