

Protestant Ethical Spirit and National Innovation in the New Industrial Revolution

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ABSTRACT

Promoting national innovation is the inevitable choice for the country to win in the new industrial revolution. By analyzing the mechanism of the role of Protestant ethics in promoting the improvement of national innovation, it is concluded that the Protestant ethical spirit has an impact on the promotion of innovation through shaping political ethics, giving economic convictions, and forming the essence of culture. Then using Huawei's enterprise as a case to carry out a confirmatory analysis, the corresponding enlightenment was obtained: it is necessary to focus on the role of the spirit in promoting the promotion of national innovation, and the role of the cultural temperament of leaders in the promotion of national innovation.

Keywords: Protestant ethics, new industrial revolution, national innovation

I. INTRODUCTION

At present, a new round of industrial revolution with information technology and Internet technology as its main features and digitalization and intelligence as its development goals is in full swing [1]. This new revolution is profoundly affecting the production and life of human beings worldwide. Whether or not to seize the opportunity in this revolution will determine the country's scientific and technological status in the future. Therefore, leveraging innovation to spur new growth points in science and technology, and innovation-driven development have become major development strategies in various countries. China has promoted innovation-driven development as a national-level strategy, with a view to winning development initiative in the face of historical opportunities [2].

II. THE MECHANISM OF THE ROLE OF PROTESTANT ETHICS IN PROMOTING NATIONAL INNOVATION

Weber's research on the relationship between religion and occupation revealed a remarkable phenomenon, that is, there is a certain relationship between Protestantism and rational capitalism, and this connection is the spirit of rational capitalism. The spirit of capitalism is a complex of many elements connected in historical reality. It is a cognitive structure and spiritual temperament. It is a fulfillment of the "principles" contained in Protestant ethics. This discovery unveiled the mystery of how Protestant forces Weber has been seeking to influence the way and overall direction of social development. "The

motivation of the expansion of modern capitalism is more important than the development of the spirit of capitalism" [3]. For the spirit of rational capitalism, Weber interpreted his wealth, labor, and innovation. In fact, the spirit of capitalism does not directly generate rational capitalism, but is only one of its generating factors. It provides suitable external environment support for the generation of rational capitalism. Decide whether to take some rational action. If this kind of rational behavior is deeply affected by the obstructive spirit, then the originally rational economic behavior will inevitably evolve towards irrational behavior in the opposite direction because of endogenous obstacles. Protestant ethics promoted the gradual formation of the spirit of capitalism, and promoted the social and economic development of capitalism.

Weber delved into the role of cognitive structure and spiritual temperament in promoting the development of capitalism, but it is inevitable that the thinking limitations of the times have been branded, and we have extended its ideological essence: the development of social reality cannot be separated from the cognitive spiritual level. Role, the innovation force that plays a fundamental role in promoting social development will inevitably be affected by it. Based on the understanding of the Protestant ethics, the following will analyze the mechanism of Protestant ethics on the promotion of national innovation.

A. The political ethics of national innovation

1) *Forming a responsibility-based political norm:* The German word for "professional" (Beruf) is religious. It can be interpreted as "summoning" or

"tasks arranged by God." It implies that it is God's glory if everyone is doing his job well. It is also an affirmation of secular occupation. Protestant ethics further provided ethical cognitive beliefs for this mundane work-self-discipline, integrity, due diligence, etc. For ordinary workers, this kind of work conviction encourages them to maintain a sense of responsibility at all times in the face of mundane work and dedicate themselves to their careers. For leaders, they do not deny their secular desires, but are affected by the diminishing value of the marginal utility of the material interests of Protestant ethics, gradually detached from the secular material desires and turned to the pursuit of virtue, thereby making valuable choices and promoting the healthy development of society. In addition, leaders affected by Protestantism will not incorporate personal emotions into their work, but will use "ethics of responsibility" as the principle to achieve realistic goals.

2) *Fostering freedom-democracy political ideas:* It is generally believed that modern liberal democracy originated from the 16th-century religious reforms, thereby providing the individualistic spirit and the concept of equality for the development of capitalism. The individualism contained in Protestant ethics is the spiritual connotation of the development of rational capitalist politics into free and democratic politics. Protestantism considers freedom not only the foundation of all the highest virtues, but also the source of all the greatest welfare. Individual freedom can only be guaranteed if it is in the structure of a social order with a common belief. If the basic common beliefs of a society fall into chaos, personal freedom will be affected. Protestant ethics includes the key element of rational behavior based on professional concepts in the elements that constitute the spirit of capitalism and even the modern cultural spirit, which is derived from Christian asceticism.

3) *Establishing a rational-management political approach:* Protestantism and economy represent the "spirit" and "interest" respectively. It is understandable that interests influence people's behavior, but the cohesive force formed by the spirit often has a greater guiding effect on behavior. Here, "idea" is what Weber calls "rationality." Weber believes that social progress is essentially a process of the externalization of rational consciousness, so it is necessary to establish a legal rule, to establish a ruling authority based on laws and regulations and the beliefs of law enforcers, and to establish all actions and organizational forms under the premise of certain rules to ensure the maximum management efficiency. In addition, rational management also includes respect for scientific

cognition, respect for professional skills, adherence to standard management, and the pursuit of efficient functions, which have strongly shaped the style of modern political management.

B. The economic conviction of national innovation

1) *Giving secular labor value:* Protestant ethics recognizes the legalization of profit-making activities, gives secular labor the value of faith, regards secular labor as a profession and is valued morally. Therefore, it guides people to engage in worldly labor without escaping; expects people to benefit from worldly labor without talking about it; encourages people to do something in worldly labor without being mediocre. It is these recognition of the value of secular labor that has stirred people's enthusiasm for work, taking labor as a natural duty and glorifying secular labor. The affirmation of secular labor from the moral level by Protestant ethics gave the development of capitalism a motive force from belief.

2) *Emphasizing the concept of rational consumption:* The Protestant view does not oppose the rational possession of wealth, but resists the irrational use of wealth, and it advocates the rational and utilitarian use of wealth. Hard work to increase wealth is a moral pursuit, but the unreasonable use of wealth or the use of profit and interest will lose God's trust in it. Assets accumulated from work should continue to be invested in profit-making activities, invest in new business practices or expand reproduction, and the investment activities to expand reproduction as a glory. Property ownership and laws and regulations provide institutional-level protection for individual or business investment profits, while Protestantism provides ideological-level ethical protection. Combining the concept of rational consumption with profit-making behavior will inevitably result in the accumulation of capital and continue to invest in expanding reproduction to achieve wealth growth. Then it entered a new round of investment growth, and social wealth continued to accumulate.

3) *Cultivating a new type of "economic man":* The new "economic people" are mainly new types of entrepreneurs and laborers, and the "new types" here are "economic people" that have different consciousness, beliefs and personality traits from traditional society. The most important feature is that they dare to break through barriers to continuous innovation. In addition, the new "economic man" has strong self-control, self-reflection ability, keen insight and firm execution, active work and love of learning, bravely face and meet challenges and other qualities. It is this kind of ideology and spiritual temperament that

entrepreneurs and workers themselves have, which is different from the traditional traditions of the past. It provides reasonable evidence to explain that the emergence of capitalism is the root of its own personality type.

C. The cultural essence of national innovation

1) *Breaking the secular idea culture*: In addition to the political and economic aspects of Protestant ethics in promoting national innovation, the mechanism is also reflected in the culture of social development, forming a cultural heritage that breaks old rules and is brave in innovation. Under the influence of Protestant ethics, people have formed innovative ideas different from the pre-capitalist society, and promoted the development of capitalism with an innovative culture. The formation of a secular idea has a particular impact on new entrepreneurs: they need to form an unusually strong character so that they do not lose modest self-control; they must act on their motives without relying on emotional impulses; and so on. Regardless of the political and economic aspects of the role of Protestantism in national innovation, it is a dilapidated process of establishing new ones and is a reflection of the value of innovation.

2) *Advocating the culture of scientific talents*: Protestant ethics advocates a culture that respects science and values professional and technical talents, provides a good basic scientific foundation for the development of capitalism, forms an innovation effect realization chain from basic science to industrialization, and enables industrial workers with professional skills to innovate. The value in the chain is maximized. Imagine that if you are in a cultural environment that is conservative and self-defeating, and excludes all innovative explorations of science, filled with people who are full of rhetoric and low-handedness, where does social development and progress come from? Therefore, the Protestant culture of correct recognition of science and talents is immersed in social development, and it is bound to form and enhance national innovation.

III. CASE INTRODUCTION AND ANALYSIS

The previous study analyzed the mechanism of Protestant ethics on the enhancement of national innovation from a theoretical perspective. Specifically, in the actual situation, did the cognitive structure and spiritual temperament of Protestant ethics actually play a role in the improvement of national innovation ability? This research next uses Huawei enterprises as a case for a confirmatory analysis. Huawei is an outstanding private enterprise in China. Since its establishment for more than 30 years, it has adhered to

the innovation development strategy and achieved world-renowned innovation performance. Through the analysis of this typical case, it is hoped to explore the underlying mechanism.

Although this study divides the role of Protestant ethics in the promotion of innovation into three aspects, it does not mean that these spirits work in isolation, but in fact they are presented in a holistic and systematic way. Say what qualities are more obvious at a certain stage or when dealing with a problem. Therefore, this study analyzes from three typical periods of Huawei's development, and specifically analyzes how the Protestant spirit played a role in enhancing innovation in these three periods.

A. The initial period

When Huawei was first established, the natural endowment conditions were far from the same as Lenovo at the same time. However, under the leadership of the "godfather" leader Ren Zhengfei, it broke through the obstacles of early development and explored an external courage to expand and face the market on the road of innovation and development of scientific decision-making. With a keen sense of the market, the company decided to invest heavily in product research and development after anticipating the huge demand for program-controlled switches in the Chinese market after acting as a small switch. The R & D investment in 1992 showed initial results. In that year, the output value reached 120 million yuan. Ren Zhengfei put all profits into R & D, continued to seek product technological breakthroughs, and achieved enterprise innovation and development in efforts to expand reproduction. [4]

B. The development period

After entering the period of stable development, the company's development highlights the following characteristics: First, it attaches importance to research and development and respects laws. Huawei has always been committed to building a more open R & D innovation system, which is reflected in the importance it attaches to R & D talents and respect for scientific laws. As of 2018, Huawei's R & D personnel accounted for 45% of the total number of employees. It is the company with the largest number of R & D companies in various types of organizations around the world. The realization of wealth sharing through equity incentives and high-paying talents is also the root of Huawei's miracle. Only by motivating basic research and development and respecting the laws of scientific development can we achieve sustainable results. In July 2018, the founder of the 5G polarization code presented a prize to Professor Erdal Arıkan of Birken University, Turkey [5]. Second, standardize management and foresight. Huawei's implementation of "workers have

their own shares" has become the company with the largest number of employees holding shares. This is a pioneering initiative to release productivity; the implementation of the "rotating CEO system" is a disruptive innovation of traditional management methods, and protects the company's science decision making. In 1996, the "Huawei Basic Law" was formally positioned as the "management outline" of the enterprise, which scientifically built a grand structure for the company's future development [6].

C. The difficult period

Enterprise development will inevitably experience a trough. For Huawei, when the company is facing a major difficult period, it can face the crisis: tough mentally, stick to its original heart, save energy in action, and be brave; Facing, optimistic and calm, bold innovation and innovation leadership. Huawei has always adhered to peace of mind, and the sense of permanent crisis has made it so powerful today. No matter it is faced with rapid technological innovations or faced with international technological disputes, it shows the style and pattern of an international enterprise. As a representative of the fourth-round industrial revolution and technological innovation, according to a report issued by the German patent data company IPIytics, as of March 2019, Huawei has applied for 1,554 patents in the global 5G SEP, accounting for 15% of the global total, ranking first in the world. In fact, Huawei started research and development of 5G technology as early as ten years ago. This is undoubtedly a typical case in which the development initiative is firmly controlled by its own sense of crisis.

IV. CONCLUSION

The development of Huawei fully demonstrates the role of the cognitive structure and spiritual temperament formed by Protestant ethics on innovation and development, and promotes enterprises to achieve outstanding innovation performance through three aspects of political ethics, economic beliefs and cultural essence. Specifically, we can get the following inspiration from it:

A. Focusing on the role of spirit in promoting national innovation

Weber used Protestant ethics to explain the rise of capitalism, showing that capitalism, as an emerging development model, requires the economic foundation to provide productivity guarantees, as well as the influence of social and cultural spirit. Then, for the improvement of national innovation, it also requires economic security and cannot be separated from the spiritual mechanism. The cognitive structure and spiritual temperament contained in Protestant ethics are

exactly indispensable to enhance national innovation and empower people with innovation. And guide people to rational economic behavior. The same is the spirit. If the cognition contained in it is composed of focusing on current enjoyment, following the old rules, emphasizing the absolute authority of leadership, and ignoring the role of talents in innovation and development, then the economy under the guidance of this spirit is lost. What is the driving force for further innovation? Therefore, correctly recognize the power of the spirit, and tap the potential of maximizing and promoting national innovation through the spiritual influence and incentive effect that can produce rational economic behavior.

B. Attaching importance to the leading role of the cultural temperament of leaders in the promotion of national innovation

It is undeniable that the reason why Huawei's enterprises have achieved remarkable innovation performance is that its leader Ren Zhengfei's values and cognitive structure play a leading role in shaping the cultural temperament of the entire enterprise. No matter it is to insist on investment in research and development funds, respect for the research and development team, or to face the atmosphere and courage when facing crisis, firmness and calmness in the face of doubt, all convey the personal decision wisdom, leadership charm and strategic vision. Therefore, we must attach importance to the cultivation and shaping of the leadership's cultural temperament so that it can form a guiding role for the corporate spirit, so as to truly form a spiritual force that promotes the improvement of national innovation.

For the entire country, only innovation is a strong driving force for national development. The rational capitalist spirit contained in Protestant ethics has promoted the formation and development of capitalism, and the people's cognitive structure and spiritual temperament they have shaped also promote the improvement of national innovation. At the critical moment of the new round of industrial revolution, if we can grasp the development opportunities and seize the commanding heights of innovation and development, it will determine the future development pattern of the world economy. Therefore, we must recognize the important spiritual power of Protestant ethics on innovation and development, and internalize it in innovation and development to achieve a new breakthrough in national economic development.

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