

# New Estimation Methods for Economics and Management Models

Run Xu<sup>1,2</sup>, KW Kim<sup>1</sup>, HJ Ahn<sup>1</sup>

<sup>1</sup>Gyeongsang National University, Dept. of Metallurgical & Materials Engineering, Chinju 52828, Gyeongnam, Korea

<sup>2</sup>Yantai Institute of Technology, Mechanical Electricity Engineering Dept., Yantai 264005, Shandong Province, China

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**Abstract:** In economics benefit calculation many formulae are substituted with digitalization of investigation result. Meantime the error calculation will be proceeded in order to observe precision. To compare with other publishing paper we can find the error for its model correction. It will be whether it satisfies actual value for application and experiment. If it is better we can consider trial for large application in actual fact. Thereby the optimum path and scope will be looked for and found the best benefit to predict accurately within it. The new estimated methods have been searched in order to extend their tendency in advance in this study whose scope reaches both economics and management model in world. The cost and profit model has been established in order to judge the scientific decision in management of enterprise. That ARMA and ARIMA etc. represents a new method in economics models will form tendency to solve prediction problem from present. In this study the scientific economics and management model and coefficient will be described.

**Keywords:** new estimation; method; economics; benefit; vehicle; management; model

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## I. Introduction

The economics model has been applied in many fields to regress and even predict future development situation and time within a period. So that it is an important one for our specialists and regulators who can determine the manufacturing proceeding. Once it is known in advance the corresponding plan and material preparation can be proceeded so that the whole manufacturing will be under our control better than low prediction and no accuracy. However, there are many models to estimate the prediction by now so how to evaluate the method even coefficient is correct way. For example one coefficient has been defined better the whole calculation can represent the accurate result rather than simple dealing with no definition. Thereby the choosing correct method to build scientific model can be dominated really. We must knowledge the detail meaning then choose reasonable coefficient to calculation so as to attain target for predicting correctly. Therefore the choosing reasonable model from different aspects will become important. New method has been chosen with latest estimation one. One way is to be trialed after the error evaluation will be done, so it can present a certain degree agreement model to use in detail aspects. The final inspection can be proceeded with investigation and experiment. If there is fit ones the new method will be produced like journal paper. After amount confirmation the fit ones will be formed to use in relative field normally. So we must stare the latest papers and reports to observe the common point. [1~4]

In short, that the coefficient is chosen correctly has been dominated in model so the emphasizing attention is paid to it. That the precision is attained by the correct ones with choosing it is the creditable results finally. So the estimating value has been adopted in order to form the whole rightness in model, it can wield its more useful utilities eventually. The destination of this research will focus on the practice and formulae to observe the intrinsic effectiveness. As below we will discuss the different items hereby for us. [5~12]

## II. Discussions

There is the model as below. They are Consumption demand model, Manufacture model, Modern economic growth model, Harold Dorner growth model, Solow economic growth model, New cambridge economic growth model, New growth theory model, Human resource capital theory model, Knowledge accumulating model, Regional balance of complete competitive market model, General balance model respectively, Investment and output model, consumption function model and investment function model. After building the model and using some data to see how big the error is, small error means that this is a more practical formula. With the larger data the more accurate results may be created because the more investigations have been proceeded in the research. There are some papers exhibited on economics DBA (Doctor of Business Administration) and MBA (Master of Business Administration) in abroad like Japan. Nonetheless the default of

spiritual bone has been exposed in aspects of contents and calculations. If they had complemented with more knowledge the situation could have become better. They use the sophisticated methods to describe the computing course so that it transforms into complicate problem, whether we could believe or not. To abandon usual methods some complicate principle is used to be explain, it is ridiculous and poor. It is expected that the feasible methods has been adopted. Not to deviate too much the reasonable way has been used with promising. [13-18]

## **2.1 New Calculation**

The concept of benefit includes a series of research investigations into these aspects. In order enough premise equipment mould, materials and personnel. Personnel include workers and managers. Management including engineers, purchasing and operating personnel. Sales personnel include order management and logistics personnel. They are all included in the management staff, so the scope is relatively large, need to screen.

Do not add irrelevant and do not only add the specific relevant personnel, need scientific screening, can use data to rationalize screening so as to ensure the scientific nature of personnel. If department is important we are to add more proportion, not important we are to add less. In this way the proper proportion relationship can be maintained, which reflects rationality and science. The specific parameters should be increased or decreased according to the values proposed by experts to ensure the actual suitability. For example software of the ERP(Enterprise Resource Planning) discussing as below the SAP(System Applications and Products) may be proposed according to the convenient management so the human resource has been controlled and monitored in manufacturer. They can control the necessity of human and inventory status to analyze the scientific estimation as for the human and inventory.

The BP Neural Network as a new method to estimate the economics problem has been utilized currently in industrial field, such as the precise prediction of important matters. The ARCH(Autoregressive conditional heteroskedasticity model) has been applied in econometrics. It can be plotted the conditional variance over time. The ARCH adopts the mathematics evaluation to economics in recent year. So after the more usefulness will be inspected by experimental data then according to the precision it might be applied to respects of good fitness and match.

## **2.2 Coefficient Estimation**

For income and expenditure, we're going to start with a relatively simple parameter, and then we're going to evaluate it, and we're going to see how far does the model differ from the actual value? Such as bearing load and fatigue wear, need to be determined according to data and calculation, this is the subject of our careful study. We can also make regression curves from some survey reports in books and actual measurements. Then look at these parameters and error evaluation of the regression survey data, will be more scientific, more accurate. If there are some factors that make its data less accurate, it can be adjusted to some extent. From linear regression to nonlinear regression equation, which benefit is lower and more accurate. Determine the regression equation and forecast and analyze it to play its role.

In economic benefiting, there are a lot of formulas that you need to sort out and plug in the survey data. According to the result, the error is calculated first to see how the regression is. Compare with other papers or data values, what is the error, can meet the practical application. If the error is good, it can be considered for trial use or even widely promoted. There are ways in economics papers to study stock price changes and bank losses based on model. Its accuracy also needs to be evaluated to find out the best evaluation method and its application range. Specifically, where can it be applied? What's the error? Is it consistent with reality? Can it be predicted? How accurate is it?

## **2.3 Management Model**

If we put it off too long, we lack timely awareness and miss many opportunities to evaluate our financial situation. If there are wrong data should be found and investigated in time, so as to keep the company's finance in dynamic balance, and report to the higher authorities and transparency. This increases the awareness of supervision to ensure that expenditure and income reach a balance. If you have time to draw regression equations to normalize spending and revenue, you can predict future fiscal conditions. Where additional expenditures and revenue increases will occur can be predicted in advance and are communized. That way everyone knows the figures of the revenue and expenditure of the company. One yuan times , dual time and high yuan equation of regression curve and make the final data, about how much profit is sure. The undesirable phenomenon to be restrained, and to punish the parties, increase the financial regulation.

The accuracy of the equation needs to be verified according to the company's data, and the coefficient needs to be carefully checked so that it plays a true role in the company's prediction equation. In this way, the financial side can have a basis to carry out bank loans, determine the time and loan amount, so that the finance

can act in advance to carry out loans so that the interests of the company can get favorable protection, and can obtain the benefits of a batch of loans. Accurately and in advance, ensure that some urgent problems are solved in advance, and give play to the advance of decision-making in some emergency moments. These investments bring additional benefits because of accurate judgment, which can save the company's expenses, bring benefit benefits and improve profits. Why not? For some capital loss can find the source, and trace, punish the parties. Kill two birds with one stone by carrying on the scientific management method to keep the company alive.

#### **2.4 Scientific Balancing Model**

It's a completely uncertain financial situation in terms of what the future holds and only in this way can you manage it scientifically and take advantage of the fact that in some areas of investment you can get money to make up for the income difficulties of the company. Only scientific management can deal with the balance between the company's income and expenditure objectively and fairly. If the benefit is not good, it can be solved in advance and reduce the expenditure when it is not solved. Expanding the market to improve the quantity and quality of orders is the fundamental solution to the problem of low income. Therefore, the continuous development of the domestic market and foreign markets can ensure that the order quantity is maintained above the balance point, and the main focus on the production and quality of products. Improve brand publicity, let customers take the initiative to come to the door, increase stable income.

The ERP(Enterprise Resource Planning) has accorded with the lowest resource and inventory resource to monitor and control the enterprise status. It wields its function in all respects of factory therein the unified administration and management have been assured in the end. It saves the time and benefit for decreasing the adventure and risker at all. Its monitoring and control function has been exhibited according to this software. It will promote the efficiency to identify the goods and human being for reasonable arranging resource planning. Besides eliminating risky behavior the whole arranging human being will take an important roles in manufacturer so that it is including in many respects to master knowledge in company by now.

#### **2.5 New Model for Economics**

Does this approach work for some of these economic phenomena? What was the result? If all aspects are close to the forecast, it shows that the method can be used to evaluate and forecast the economic law. Methods have been used for securities prediction and assessment, but their accuracy has not been studied in concrete. Methods of studying time series can be researched in terms of it. There have been studies in Japan to support large-scale data calculation, so we need to further study.

Although there are some economic statistics and other methods mentioned in the economics book, it is not clear which advanced methods are used for specific assessments. Their studies are empirical and not very specific. So we use other methods such as least square method and other traditional methods to calculate the regression coefficient for partial evaluation, or there are other formulas and methods that are more suitable for large-scale calculation, classification and result evaluation of these data. The data is our evidence. We can first discuss from its rationality and mathematical aspects, and seriously consider the aspects in which problems may occur with this method. A few more refinements and updates to the actual meaning of the parameters? And carefully do a good error assessment. These methods can be used to carry out specific research projects and obtain good results. If necessary, the accuracy of coefficients can be constantly updated to achieve the consistency of results.

The ARIMA(Autoregressive integrated moving average model)as a mathematical method has been superior to ARMA(Autoregressive moving average model)that is the calculation method for economics prediction one. The former can solve the sophistication problem so it has preciser and more accurate result than later. It is due to the former's strong function applied to important place.The ARMA represents a new method in economics model will form tendency to solve prediction problem from present. However there is still the corresponding correction matter in academy, its usefulness still exists of the consistency. Furthermore the BP Neural Network dominated the sophisticated and precise prediction in many economic scopes. Its precision has reached more advantageous field than the ARMA and ARIMA's.

There are still some errors in the original data, which need to be improved gradually. We shall revise the data to administrate and control to fit to more objective and make it to more fitter to calculate. Certainly if it can not represent the correct coefficient and make some errors we should change it to simulate the fact investigation. The correct coefficients can gain the reasonable answer but if not the wrong and deviating one will be gotten which is not fit to objective calculation because of its wrong judgement and collection. Therein the right data will enhance the objective and wrong one will drag its calculation in the end.

## **2.7 Relationship amongst Quality and quantity & profit**

A state of quality, but if that state is too loose we can appear overly optimistic, overconfident and affect our judgment. Quality and quantity are the foundation of enterprise survival, and quantity drives quality development is the main. Quantity is the gift and quality is the root. People are willing to buy good quality goods, even if the price is higher. We will seize this point to improve the quality, price is another matter, as long as the price is not too high, there will be market profits. It is appropriate to use price to regulate quality, because our products are of good quality, so it is not impossible to take some time to improve quality and raise prices appropriately. The improvement of product function will lead to the increase of its quality, but the price can only go up. If the output reaches a certain value, there will be an increase in profit, so the innovation ability of the R&D(research and development) department is important. Multifunctional products sell well, and the quantity is not too small, which is where our profit lies. It is perfectly legitimate for customers to pay more for the versatility of their products. We simulate the needs of customers to produce multifunctional products, and launch the market. To a certain extent, it comes from the potential needs of customers, and there will be selling points. Now the question is what is the quantity and the profit? This problem needs to be investigated and then processed through data calculation, i.e. model, to simulate future demand. As long as the quantity reaches a certain value.

So Marketing Department according to the research and development of price and quantity, laborer number operations can draw production problems. Mass production can be carried out if the quantity of the product is permitted, i.e. greater than or equal to the capacity, and the price is reasonable. To evaluate the future trend, if the quantity is increasing, the commodity can be produced for a long time and the production scale can be expanded to form the main variety for scheduling. But any product has a life span, so product renewal is very important. This can extend its life and maximize the use of this product. The maximum capacity is the output at half its maximum life. It can also be estimated based on benefit, so that you know how long the product will last. According to the combination of market analysis to get the best life. So updating features is a good way to extend the life of your product. The addition of new technologies to rejuvenate it is a crucial link. Changes in materials and structures, for example, can make production cheaper. Low benefit is also one of the links of high profit, so how to make the benefit low is also an important section of technical and quality engineers need to consider. Only low benefit manufacturing , transporting and storing can guarantee its longevity, due to various reasons in prices generally lower evergreen. Requires high attention from technical and sales engineers and department heads.

## **2.8 The 4S Store and 5S Management**

To reduce the product benefit will increase profits, the need to produce, technology and logistics to cooperate to achieve them. Good coordination will make the product profitable, such as material and structure changes and logistics storage and transportation need to be handled in a timely manner. 5S is the activity and plan in a factory in order to promote its working environmental standardabilities. To work with clear atmosphere in electronic department all the time 5S raises its tidy function. Its main path will become the staff attainment it is difficult to develop and insist if does not correspondingly promote. This point is the core and essence. It defines the territory of working and nonworking with green color coating and yellow line. It is convenient to clear and good mood for automatic product line. To decrease the error of 0PPM(Parts per million) the clearest atmosphere will be used in line and the most comfortable mood in staffs which is the key. Therefore the Japanese electronic product owns the strongest competition and level to compare with other countries in world due to its near perfect qualified rate. The sale path is proceeded according to 4S stores. 4S stores include sale, spare part, service, survey with the key of quaternity in automobile franchise model. It has unified configured image, unified signal, unified management and unified single brand which has channel consistency and unified culture mind. It has an advantage for promoting car brand and enterprise image of manufacturer. Pay attention to savings for large expenditures, so that the funds used for essential items, such as working capital of raw materials and wages and machinery and plant maintenance and maintenance. The former is visible, but the latter is invisible because in excess it reduces labor hours and thus benefits. 5S management refers to Seiri, Seiton, Seiso, Seikeetsu and Shitsuke proposed by Japan.

Overall a new product can only play its function and maintain its longevity through competition and market power. Here new features and low benefit are its capabilities. High quality and quantity will gradually play their role, become the main variety in the market to maintain the advantage. Knowing where it is in advance and constantly developing new markets and becoming a brand and updating it to keep its priority is the way to go. Understanding the concept of benefit combined with the market can be used to predict the maximum economic profit point, seize this unchanged, will eventually achieve the purpose in advance. Using the model for balancing point in financial division has expressed the scientific management method in manufacturer. It can

exhibit the advantageous prediction for the company management with reasonableness and availability.

### III. Conclusions

It is thought that there are still some errors in the original data, which need to be improved gradually. We shall revise the data to administrate and control to fit to more objective and make it to more fitter to calculate. Certainly if it can not represent the correct coefficient and make some errors we should change it to simulate the fact investigation. The correct coefficients can gain the reasonable answer but if not the wrong and deviating one will be gotten which is not fit to objective calculation because of its wrong judgement and collection. A new product can only play its function and maintain its longevity through competition and market power. Here new features and low benefit are its capabilities. High quality and quantity will gradually play their role, become the main variety in the market to maintain the advantage. To know where it is in advance and constantly developing new markets and becoming a brand and updating it to keep its priority is the way to go.

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