

# Discussions to African Development of Technology and Innovation in its Industry

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## Abstract

The future trends from high technology to automobile components industry are analyzed in detail. Put forward to the implementation of their products and put their possibilities into practice. Specific response measures are pointed out in two respects, indicating that they are urgently needed to run the factory products. In addition, the products shall be established in Africa in order to promote new and innovation. It can be acquired through train in and between factories besides the school. Due to its low labour and undeveloped industry many opportunity will await us to mine its countless chance and profit. Like in Africa they can loan with urgent and above two because of their development demand. So if endeavor is imported many new project will be found by us together. Let us continue to pay attention to Africa for better benefit and common development. In this paper the development of technology and innovation in Africa has been discussed trying to find their intrinsic relationship from respects of the urgent, high technology & automobile in bank loan. The privilege to these field capital will benefit their development in advance and rapidly which can create many innovations in the course of making goods. We should exploit more wide field for high technological product to give convenience to make them to proceed more innovation technology for Africa and world human being.

**Keywords:** African industry, development, discussion, automobile, component, technique, innovation, bank loan, renewable source.

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## 1 INTRODUCTION

Africa is a continent where the industry and service has lied in need to be developed. There are someone who searched agriculture production like semi conduction and find its profit is potential. Others proposed the suggestion that industrial mechanization is a good situation for promoting efficiency in Africa. There is someone who suggested the investment to plan in automobile manufacture and sale. The mobile manufacture has been prevail which lies in world tendency and positively proceed. Since it is laggard in industry the related factory has advantage to develop by its advantageous atmosphere. It may leap some space to the most prevail styles. Due to its low price source and labour Africa may attract investment easily which is an advantage to form African advanced industry [1-3].

For the sake of convenience we may use the wind, photovoltaic and automobile to proceed large cost check like infrastructure, medical data process and common enterprise. We can just use the conclusion to update data and design new one according to situation.

It will save our time from annoyed simple calculation. We just patch person to inspect the course to fix some matter. It is the advantage from which the optimum operation may be formed and all we are doing is just use result. Since Africa is wide and big continent there are many opportunity and challenge it shall be discussed thoroughly in all two industries. Now the situation is more and more development due to other countries attention and profit. Including China etc. The world manufacturer and agency shall proceed its advantage to there in terms of its better manufacture and market. If it can use the Africa fitly they can make much anticipated profit [4-7].

Therefore emphasizing Africa may give us a big present and due to low price and not development which is a potential big market and jumps development in terms of the localization they may provide many challenges. The train in company and inter companies may carry about many learning and know how so it can be continued all the time. [8] Therein any innovative idea will be formed for our different types of design

which is considered. Because the functions have many types which need us to be cultivated from now on we should go on communication through train. At last the bank loan may be necessary for our companies which maybe magnifies scale and new factory for some urgent item. The other two is describing in discussions. One is high technique item and the other is automobile one, which is the important projects in African industrial situation. In terms of bank releasing loan the privilege may be given to the corresponding enterprise to proceed rapidly. Therefore the privilege enterprise may first complete device and flow line to make product specially. Since the project is urgent and high level they need to be arranged in advance in order to bring up more many factory and agency to be established according to situation in Africa.

## 2 DISCUSSION

During 2019~2020 the whole world capacity of photovoltaics increased 0.12TW while the one of wind power generator increased 0.11TW. The renewable energy mentioned about two increased from 10.3% to 11.7%. Hydrogen cell is an non contamination, low noise and high efficiency. As its research development it gradually exposes in our world. It use chemical energy to electricity which is reverse reaction of water. If the electrolyte is put with hydrogen and oxygen the anode and cathode will react with them respectively the hydrogen reacted to electrolyte will swim to cathode and form electric energy. Hydrogen cell as an promise product has been developed in recent years. Specially its application with hybrid vehicle may a new main part. As a recharge cell it will substitute the fuel in engine. Recharge time will be significant to apply to main power in automobile. Its nose is only 55dB which applies with low nose region. The efficiency attains bigger than 50% that is the high value than the coal one will arrive only 30%. It is considered that hydrogen may transform from chemical to electric energy directly not through heat and mechanical one so that its efficiency are high. It applied with aerospace to move from earth and space in 1960s early. Then it is made some to use in vehicle later even plane. That it is too heavy and expensive is its default [1].

The human resource, capital and innovation chains may provide the whole industrial chain where they are divided into these different functions. So how to wield their function differently according to functions has a significance. These three respects have interactive role eg. Human resource will increase innovation, meantime innovation may promote the former level on the opposite. On the other hand the human resource increases capital elevation, on the contrast the later may promote the former level. That defining one and promoting the others above all is our behaving. For the sake of different destination the innovative behaving is doing to define the others where it may encourage the people to behave in terms of the policy. It can also make people to do positively.

Therefore its motivation aim can be completed smoothly and less complaint may be formed which may decrease the accident for people. The aim will be complete rapidly for us to save time. Eventually the decision according to plan with the local factual situation will be approved by us.

The automobile industry may become a new scene since it has big potential demand. Its market has big elasticity because of its slow development in Africa. The advantage includes that one is no mature industry since its low industrial base therefore there are many chance, the other is low material and labor. Currently China and Africa will cooperate in many fields like infrastructure and automobile. There are many opportunities between these two economies. Furthermore the China is leading current infrastructure in prevail so that how to lead Africa to construct their engineering will be significant. Therefore China needs to export its technological capability and equipment to Africa as many as possible. Africa may become the key whether China win the economic war in future. For the sake of winning the war Africa may provide convenience for China e.g. convenient materials price and labor etc.

Only profitable revenue can positively absorb more construction and investment oversea, for example the cheap labor and material can make the factory to be invested from oversea. So the two respects may attract much money to do business well. To develop innovative industry in Africa may includes its parts which is the core in manufacturing automobile. Therefore looking for fitted partners to make its part like car body, floor stability and motor toughness etc. The series of part all need to be made with high quality ensuring and decreases the error whose quality and level affects the assembly line and at last affects the entire automobile quality. So high quality may be demanded in its industrial chain. The quality determines the high level, therefore to promote the automobile level the high quality will be wanted because of many innovations during the course. At last the quality affects the innovation. Only good innovation may be absorbed in improving its quality. The logic relation should be remembered and classified when we do things. The innovative idea may be formed and list them to look at and adopt so the charge may be saved. To use the money to them has been encouraged and attract them to put more time to key joint which can save much cost for company. As for the improvement of manufacture after they may gain the approval from application even customer it can be made in flow line. Make different improvement will form the new function which may be applied to new one.

The rear earth permanent magnet as a future material may be utilized in motor of new energy vehicle. Its development may be huge according to current analysis. So we should pay our attention to this

material for motor part currently and in future. The more than 20% high efficient and saving energy one will be occupied in 2023, which is predicted. The occupation of permanent magnet brushless in motor may become more and more demand in future. If the new energy system is carried about the reserved battery will get the dominated position. the reserved battery is prevailing in motorcycle and hybrid automobile currently and later the rechargeable power and time will be short for man to be convenient. Therefore R&D (research and development) division in corporation will dominate this one to be performed and get substantial properties which break limitless excellent conclusions. That the cost may be down is the important respect because currently the cost of battery is too heavy. We shall have to wait for several hours to finish rechargeable electric power therefore this high cost will affect its enough using time. As for the better one it is reported that fifteen minutes may be charged for automobile. That is best one for us to know up to now so that how to define the cost and promote it to use widely is to one task to do. if there is innovative experimental measure we may keep the situation to check the process and materials to look at the total cost to gradually develop to a degree or rapidly grasp the whole process to apply to the hybrid vehicle part and pure electric one. Comparing with fuel the electric one may become future main goods the demand on high capacity and high efficiency. The battery must be searched to satisfy the general person rather than noble. Here the cost may be an significant measure to consider. The cost of single Si plate research should be resisted to apply to. It is photovoltaic reserved device that may be applied to more place. The corresponding train may be proceeded in company and inter company in order to grasp the basis technology on product. The inter enterprise train needs to be proceeded carefully and go to the other one in order to learn more details. Because the content is not the same the lecturer must teach much wider. He makes the connective knowledge more carefully to be convenient know how to them. Meantime to other types they may need to be trained through the other enterprises. Therefore they may learn more much to their product function in idea. Inter companies includes the related and subsidiary one where the common knowledge is needed for the related products. Meantime the related one has the diversity between them where the different way may be found, therefore the common and different way may be interactive role to related product. As for innovative one we shall adopt to product. So train is communication in company and inter company through it the inspire will be produced. The train has important role in our company even in school. In school the lecturer introduces the basis of product and revokes student to inspire for difference which can help them to study positively. The same way in company the innovative mind may help them design new product. Certainly through experimental course in university the way may be formed then in company the innovation may be

considered to series product and different types. In company having professional knowledge specialist and engineers can design a new type one according to demand for future this is good behavior that is called as sale market. This one must follow the situation of big market. We can know the market trend in terms of our intuition. It is praised by customers. We can speculate demand in future. Therefore the specialist is needed to produce more this type of way currently.

Not only the future demand but also trend will be guessed by us. The school must correspond to the enterprise for their action and most quantity to produce and sell product in a factory and branch office where it attracts almost people including graduation of university. So for the purpose of benefits the one in university and college needs to be educated with technique to meet social and market demand. in the end one will gradually enter social this big family to labour and study therefore the technique may be wielded here to participate a certain occupation to cooperate and negotiate with each other. They can promote the product quality and sale through their experience and technique. The route from school to society will develop the innovative idea and level for our destination with infinite commercial goods to promote society into magical modernization in terms of our each one to realize Maximum goods for next next generation. In current many new disciplines are being appeared like artificial intelligence. This is an urgent department in enterprise therefore the people are going to be trained from now on to future which is important. The most significant one is human resource who can wield software role in design programme even in robotic setting in product flow line.

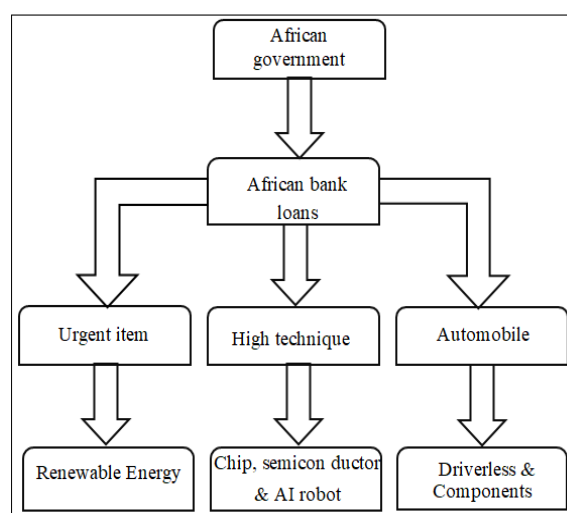


Figure 1: Loan situation in Africa

On the views of policy the administration of country makes bank to loan of low interest to corporation in order to advocate decreasing carbon enterprise as seen in Figure 1. It supports low contaminating one to develop rapidly to atmosphere

cleaning. Like high technological one the same supports may convey to it for encouraging this industrial development. So the country policy must be known then make low loan to proceed commercial operation. For the sake of scale the bank loan needs to be made to rapid developing way to our urgent enterprises which is beneficial to clean atmosphere. The low interest loan must be given to clear atmosphere with prior loan and borrow later etc advantageous item for us to consider establishment in green ecology and renewable resource. Our government should adopt brisk and capable policy to bank which gives the all kinds of advantage to ensure the emphasis item and project to our common enterprise like privilege item and semi privilege policy to loan and borrow. Even if the privilege capital increases the project needs to be loaned for low profit with high technique specially renewable energy. It should increase the risk for low profit but in future it has space to common enterprise. Furthermore the high technique item will be privileged for the capital difficulty. The doctor imports new technique to promote in high new zone which is the first privilege with capital from several ten hundred thousand to several hundred thousand USD to loan. Therefore the company will buy the device and hire high level staff in factory in order to produce new product to meet automobile and semi conduction demand. The urgent project will be set and complete early device setting to produce product early too. To give them the privilege may occupy lead position for complicated level. For example the semi conductive product occupies priority in the world so we must keep up with their developed tail in Africa. Training technique engineer and operator for sophisticated level has been significant. Only if grasping the internal technique can they develop the high tech software and hardware simultaneously. For the delight future the training is a continuous project to proceed in factory and inter factory to innovate.

### 3 CONCLUSIONS

As to high technological industries the energy is first and important which can support the industry efficiently. The detail distinct is concluded according to this study respectively. For example wind, photovoltaic & hydrogen battery items it has been a high technological project to proceed in future. The train in factory and inter factory is a promise project. It can promote the innovation applied to products like robot

and driverless auto etc. As innovative products are more and more large they are made in order to obtain convenience and rapidness innovation. The new African industry includes these two respects whose role is dominant year by year, therefore to completely use them is the our main destination. We should pay more attention to them for the sake of most profit. We shall know how to plan and loan whose method and speed is significantly important. We must rapidly make detail relative products plan and propose it to government and bank to approve and loan. For human being modern development the technological and innovation product will be created in wider field in industry. Furthermore the world new creation product is experiencing a new revolution we must do as soon as possible (ASAP) to catch new idea and function concept for completing its reality from factory and design division. To be African technological development let us put our cooperation and innovation with them may be important for future profit.

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