Abstract—Based on the idea of understanding and dealing with the black swan event, this article makes a detailed discussion on the black swan event that may occur in the university. It points out that college administrators lack imagination and turkey-style thinking methods. The knowledge arrogance and mental biases in management activities will be the fundamental reason that they can’t recognize and deal with the black swan event. In the face of the upcoming black swan event that may occur in the management of colleges and universities, college administrators must take action and precautions.

Keywords—university managers; the black swan event

I. INTRODUCTION

Almost all people who care about college think that they know what’s going on in the university. However, the things that surpass their predictions happen every day in the university. And college administrators do not predict them. With managers’ past experiences and perspectives, many things are crazy. However, when the event appeared, it seems that it is not crazy. These events have logical characteristics. This has caused a big discount on the rarity and comprehensibility of these incidents. The world is not transparent. However, its appearance will fool us. We must guard against the black swan event that may occur in the management of the university. We should take precautions.

II. UNUSUAL UNIVERSITY MANAGEMENT

The system of higher education is an area we know well without understanding, an extreme world in a mediocre world, and a mediocre world in an extreme world. It can’t be precisely predicted and fully controlled. Now the management of colleges and universities is facing double pressure from the mediocre world and the extreme world. That is the impact of the black swan event. As university administrators face the randomness of a mediocre world, it is impossible to have black swan event. And it can’t make a single event lead the entire phenomenon such as the black swan event. And it does not matter if college administrators encounter unexpected events. However, most of the natural and social systems are chaotic systems. And then, almost all social things come from the extreme world. In the extreme world, a single event can easily affect everything in a disproportionate way. In this world, college administrators must always be skeptical of the knowledge gained from the data. The messages that university administrators get from the information in a mediocre world increase rapidly with the increase of information supply. However, in the extreme world, knowledge increases very slowly. And accelerating increase is amazing. In a mediocre world, we must endure collective action, routine and unpromising "tyranny". In the extreme world, we are "shocked" by strange events, accidents, unpredictable and unforeseen events. As Warren Buffett said, in sudden ebb, you will know who is swimming naked. [1]

III. THE BLACK SWAN EVENT IN COLLEGE MANAGEMENT

Higher education belongs to the modern world and the modern world belongs to the extreme world. In the original environment, black swan events were limited to emerging beasts, new enemies and sudden changes in the weather. The repetition of these events would cause natural fear on it. Such instincts come to deduction quite quickly. However, we could just see the trees not the forest. The habit of concentrating solely on the source of a few uncertainties or the known causes of black swan event is still deeply rooted. And this instinct is the dilemma of university administrators. Now, let us play theoretical imagination. We could examine the higher education system from another perspective. First, we think that colleges and universities are special network consisting of a group of elements called nodes. And they are connecting with other nodes in some way. Second, this particular network has the following characteristics. The network is concentrated in a few nodes. These nodes play a pivotal role in the link. Few nodes have a very large number of nodes. And others have few connections. However, we just need to think what would happen if the major node went out of order. For example, colleges and universities have four main nodes: teaching building, dormitory, library and canteen. The details of teaching building, bedroom building and library are small and clear. However, the canteen involves purchasing, cleaning, cooking, storage, disinfection, health services staff and many other aspects. The more links
involved, the more details involved. The more details involved, the more people involved. The more people involved, the larger social networks formed by the involved people. The larger social networks are, the more events happen in the network. It has the characteristics of indeterminacy and complexity. Details decide everything. The individual's behavior in every detail is highly uncertain. Around any sub-section of the main canteen, any one small detail in the event of an incident or bad mood would cause poisoning incidents or other unforeseen events. And it may lead to social concern and criticism. For any college manager, it will be the most unbearable black swan event in his career. There is a great deal of uncertainty during the college administrators dealing with the individual behaviors. And this uncertainty carries an unknown level of risk.

Do our college managers have thought of this? Perhaps, they think of it. Maybe, they simply don't think it. They only focus on the few uncertainties or the causes of known black swan event. Our university administrators have established strict sanitation system for the canteen, a file system for canteen staff, a health measurement system for food operators, access control systems for purchasers and cleansing workers, and so on. These are all sterilized randomness. It is sometimes useful. It is not the same as the randomness of management activities in our real life. University managers can't predict the behavior of different individuals. We have very limited management knowledge of uncertainty. We can only prevent what we think. How can we deal with what we can’t think of? We can’t expect to sit down to study the equation that dominates black swan events. We just observe the data, assume all possible real processes, and coordinate more information to adjust our analytical equations for calibration. When the black swan event is presented, it should make a comparison between what we see with what we expect. It is usually modest process. The information on black swan events in the higher education system is too scarce.

The Black Swan refers to major events that we wouldn't think. Some things belong to the extreme world. And they are extremely dangerous. However, it doesn't look like that. That's why they hide the risk and delay it. In fact, the substance of the extreme world is not dangerous from the perspective of the short term. If we didn't see it, we wouldn't think of it. We have created natural and contemptuous habit to deal with the illusion of stability and the hallucination of peace. This makes college administrators ignore that the higher education system is a complex system. Moreover, complex systems often exhibit both firmness and vulnerability. And they need to survive in the real world. Complicated systems are generally able to withstand all forms of interference, which is how they are designed or evolved. In fact, if they can't get this, they must be modified or die. Each complex system has weaknesses. Once, we struck it in a suitable way. And the most elaborate system would collapse. Once, it manifests the weakness, we fix it immediately. And we have increased the robustness of the system in some special way. At the same time, they also prove that this does not eradicate the fragility of the system. And it is merely transferred. During other times, it may make accumulation and cancellation. Also, it may manifest in other types of events or black swan events.

IV. BLACK SWAN: PARTIAL UNDERSTANDING OF COLLEGE MANAGERS

The future is not the same as the previous one, and we are rather arrogant about what we know. Of course, we know a lot. However, we have a natural tendency to think that we understand a little more than the fact. It is enough to make us occasionally fall into grave predicament. The college administrators are purposeful. They pose a threat to the system of higher education. They focus on the clarification and domestication of uncertainties. And they ignore the unqualified category and uncertainty of sources. With limited knowledge of college management, you forget that what you know is never the same as what you think you know. They ruined the only concern about the uncertainty. And they declared that they know what can and can’t be done. And then, we have the question. What does this key "know" include? As a result, this group of people who have led us astray will increase the risk of black swan event in the higher education system.

A. Turkey Style of Thinking

Managers in colleges and universities should consider the following questions in their management activities. How can we logically make the general conclusion from specific examples? How do you know what we know? How do we fully understand their other properties from the phenomena observed in existing objects and events? Any knowledge gained from routine or observation has innate traps. We should focus on the following example. And if we fed a turkey daily, the bird would believe that a friendly human feeds his life in the best interests every day. It is the universal law. On a Wednesday afternoon before Thanksgiving Day, something unforeseen will happen to it, which will lead to the revision of belief. How can we know the future from our past knowledge? How can we understand the infiniteness of the unknown based on limited known basis? We should recall the question of feeding turkeys. From the events of the past, turkey could understand what happened before that Wednesday afternoon? Maybe it can learn a lot. However, it is obviously a little less than what it understands. Due to that, the result is totally different. Any pair of hands that feed you may be the one that has broken your neck. Turkey would learn from regular or observation. And we are also taught to do like that. Turkey's confidence would increase with the number of friendly feeding. And its sense of security is also higher and higher. However, the day of slaughter is getting closer. And we should think about it. Its sense of security reaches its maximum on the day of the crisis. And then, the things that have been valid in the past are no longer valid. We wrongly judge the past observations. And we also regard it as a definite mode or the representative. It is one of the biases of university administrators. We can't understand the key of black swan event.
B. The Arrogance of Knowledge

The arrogance of knowledge has dual effects. Through the compression of uncertainties, college administrators overestimate what we know and underestimate the uncertainty. Such distortions make the knowledge have strong force to create self-confidence. And it isn’t to improve empowerment. For example, the common problem of our university administrators is that they will underestimate the possibility of breaking away from what they first saw in the future. The smaller the probability of occurrence is, the greater the arrogance of knowledge will be. The problem of college administrators is that they have no self-knowledge. It lacks delusional knowledge of their qualities. And you would understand the process. However, you might be satisfied with their knowledge. If you focus on what you know, you would see the world from your own model. Once, the college administrators holds a certain outlook on the world, and they will tend to think only about that what he believes is the right thing. Strangely, he has more information. He feels that his own view is right. And then, he focuses on the planned internal things. He wouldn't consider the external uncertainties. When formulating policies, the most important thing for university administrators is the lower limit of the estimate, which is the worst case. The worst case is more important than the prediction. At the same time, the specialization of university administrators stems from the repetitive, limited execution of tasks. It is possible that the tasks could be fixed. When we face the black swan event in the higher education system, we are ignorant. And we will always do so. [2] We should not be victimized by our own intellectual arrogance.

C. Partial Understanding of the Mind

Today, our mental structure is formed in the early stages of mankind. And it isn't in the stage of industrialization. It is genetically determined. According to the study of cognitive archeology, our physical structure and psychological structure are formed in the hunting and fossilization of human life and activity, namely the Neolithic Age, 40,000 to 50,000 years ago. The interaction between genes and the environment determines the human mind. All of our difficulties stem from the fact that “we are unrestrained in the industrial age”. It is industrial age equipped with a prehistoric brain. [3] Our mind is our reasoning machine. And it is used to deal with daily problems, not to solve complex problems. We can’t automatically transfer knowledge and proficiency from one context to another. Also, we can't automatically translate theory into pragmatic behavior. And it is the disturbing point of human nature. Our reactions, modes of thinking, and intuitions are related to the context in which things or events are presented. Evolving psychologists regard this background as the field of things or events. The system of higher education is an area. However, real life is another. Our reaction to a piece of information does not lie in its logical value. However, it lies in the social emotional system based on its contextual environment. Logic is a way of teaching in the classroom. And the way in real life is another. Most of our college administrators have received one or the other of science training. However, they ignore the fact. At very precise times, the knowledge often fails to result in appropriate action. And our minds tend to forget what they know. We tend to use different minds in different situations. However, our brain seems to be a central computer that lacks versatility. It can’t make our mind start from the logic. And we must deal with all the circumstances and events. In addition, our minds crave rules very much. We have to reduce the number of things and simplify them before we can put them in our brains. If the information is random, the number would be large. And it would be difficult to make it simple. The more concise you make, the more rules you attach to things. And you will be sexually charged. To simplify the details and the behavior force us to believe that the world is not as random as the actual situation. The Black Swan event is what our minds have lost in the process of simplification.

To have rich information, experience, institutional constraints, and management theories does not provide us certainty. Our minds have biased instinctive bias. Sadly, at this point, university administrators have not been spared.

V. CHEAP ADVICE: EVERYTHING IS IMPERMANENT

A. Everything Is Impermanent

The famous British philosopher Thomas Hobbes once said that the antecedents had decided the consequences. Those who unconditionally believe the past experience and ignore the fact — Every thing is impermanent. And they should look at the famous captain's statement on this view:

“According to all my experience, I have not encountered any ... worth mentioning accidents. I have only seen distress vessel throughout my life at sea. We have never seen a crashed vessel. And we have never been in danger of crashes. Also, we have never been in danger of catastrophe.”

—— E.J. Smith, Titanic skipper, 1907

Captain Smith’s ship sank in 1912. And it was reported in history of shipwreck most frequently. [4]

B. To Watch Out Black Swan Events

We deal with things that belong to the extreme world. However, we also think that they belong to the mediocre world. If the event is rare, it would be vague. The probability of rare events can’t be calculated. However, it is very to determine the impact of rare events on us. Therefore, managers at colleges and universities must focus on outcomes rather than probability. If the events want to be Black Swan events, they must be rare and out of the expectation. Also, they must fall outside our narrow view of probability. The turkey style of black swan is not butcher's black swan. And our managers can’t manage the unknown risks with weak theories. They can’t crazily trust in rational regulation. We should not be victimized by the arrogance of our own knowledge and mental bias.

C. Limited Rationality

In the social sciences, the infection would determine the fate of philosophy. The correctness can't determine the fate of philosophy. And the real mystery of the higher education
system is that it is neither rational nor irrational. It is a combination of the two, or neither. Especially, when our college administrators face a wide range of choices, whether they choose a new major that should be developed or a medium and long-term strategy, they all try their best to avoid the risk by observing, imitating and learning from others' behaviors. Even in the case of non-disclosure, they also rarely show heterogeneous behavior. What managers' show is exactly what Simon calls bounded rationality. On the one hand, we think that we are omniscient and confident. On the other hand, we are often unable to determine the best course. Also, we don't have the ability to make our own decisions. We learn about others repeatedly. And we are used to paying attention to other things or human behavior. We think that others know more than what we know. To pay attention to other people's behaviors, we would ignore the answer. If we have a think or practice, the answer will be clear at a glance. The price we learn from repetition is something that has never happened before. And the non-repetitive event is artificially ignored before it happens. And we would worry about what has happened. We wouldn't worry about what may have happened. The black swan event is hidden in these things that may have occurred but not yet happened.

D. The Small Is Beautiful

Larger organizations or agencies seem to be more efficient. However, we have no effective evidence to provide the support. On the contrary, the larger organizations or institutions are more vulnerable to external or internal accidents. With the support of the government, the university management system has become larger and more vulnerable. The government's management of colleges and universities is constrained by these large-scale university management systems in some ways. Big and fragile management system can't deal with Black Swan events. Therefore, while downsizing, colleges and universities should set the organizational structure. And it should emphasis on "arch side effect". There must be space between the arch and the arch in the Venetian cathedral of Santa Marcon, which has evolved into an important art piece when we visit the church. A secondary branch of some form of adaptation derives a new function. It is called the "arch side effect". It has a potential function that can be aroused again in appropriate new circumstances or black swan events. As Nassim Nicholas Taleb said, we should learn to prefer the defensive redundancy. The redundancy would be the insurance. 2

VI. CONCLUSION

Even with his skill, an eye-blind watchmaker could just master simple physics. And a real watchmaker has the foresight to design cogs, clockwork and their combinations. And they would be clear about their future. [5]

REFERENCES


2 We have two pairs of eyes, two lungs, two kidneys, and even two brains (the left and right brains). And each organ has only uniparental functions that exceed the needs of the general situation. So, the extra is insurance.