

An Examination and Critique of the Use of Knowledge Management in Achieving and Sustaining Competitive Advantage in Business

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Abstract

Today Knowledge Management and innovation have become factors for success. Organizations must compete in such complex and competitive environment in order to stay competitive. The organizations must know how to implement and distribute knowledge in the organizational process in order to achieve a sustainable competitive advantages. The organizations have invested heavily in building Knowledge Management Systems. Knowledge Management is essentially important especially in airline industry. In order to prove the previous statement, an airline industry – British Airways has been chosen to show how the industry has applied and used Knowledge Management in managing their business. British Airways has applied Knowledge Management in strategic planning, communication and customer experience.

Keywords: British Airways, Competitive Advantages, Innovation, Implicit Knowledge, Knowledge Management, Tacit Knowledge

1. Introduction

In twenty first century, there are many organizations competing each other in today's challenging and complex environment. The main reason is to defeat competition and win the customers. These competitions are being transformed from different factors such as globalization, increasing in diffusion of technology, technological development and the use of knowledge. Knowledge has been recognized as an important transformation of organizations. Besides, it becomes an important asset for organizations to produce new skills and prevent from being extinguished from the markets (Zack, 1999; Kohlbacher, 2008; Law & Ngai, 2008; Razak, et al., 2016). Knowledge has been recognized as one of the essential aspect in managing the direction of organizations (Chang & Lin, 2015; Sankei, 2015). The dramatic use of Internet Technology applications has led the organizations to rethink about the best approaches of doing businesses. Innovation has been considered as one most important elements of competitive organizations. As there are getting more data to handle and it is a need to transform these data to identify the useful information in decision making. Managing knowledge-based resources is important to organization in achieving and sustaining competitive advantages (Varun & Thomas, 2001; Rob, 2003; Canongia, et al., 2004). These

knowledge is readily available and can be used by anyone within the organizations. It is possible for the organizations to create their own new knowledge and business value to their clients as the knowledge is aligned with business/organizational strategies. Knowledge has been considered as asset that is different from other types of assets such as capital, labour and land as knowledge will help in increasing the performance and the value of knowledge will not diminish. Besides, knowledge can replace capital and labour as it brings intangible benefits and as a value added of organizations. Knowledge can be considered as a fundamental basis of competition. New knowledge helps the organization to be differentiated from others. Compared to traditional resources or assets, knowledge has an increased return to the organizations that enable organization to sustain a knowledge advantages. (Malhotra, 2000; Sharkie, 2003).

Many studies shown that there is an important effect for the organizations to obtain competitive advantages. Knowledge Management (KM) has been admitted for its important role in creating competitive advantages for organizations (Richard & John, 2001; Jon-Arild & Bjørn, 2003). The organizations are no longer compete each other on the basis of their capital value, yet knowledge has become a new competitive advantage to stay competitive in business. Knowledge can be a competitive advantage for organization. A well-known management consultant, Peter Drucker, said “knowledge is the only meaningful economic resource”. Organizations should increase the speed of seeking new knowledge as the development of KM is continuously increasing (Tsai, et al., 2006; Krstić & Petrović, 2012; Fazilli & Khan, 2016).

This paper explores how Knowledge Management has been used in airline industry. British Airways has been selected as case study to discuss how Knowledge Management has been used to design the organization strategy, influence multiple aspects of businesses and improve customers’ experiences. Different perspective from different experts on the relationship between KM and competitive advantages are discussed in literature review. In methodology session, it discusses the methods and techniques and case study used to complete the study. In discussion, it explains how British Airways used Knowledge Management in their daily operations, such as strategic planning, improving customers’ experiences, internal usage of knowledge etc. Finally, the paper shortage will be mentioned that will need to improve in next research.

2. Literature Review

2.1 Knowledge and Knowledge Management

In business world, it has been changing from the era of natural resources to the era of knowledge. Knowledge can be considered as key source of business growth as it is innovation basis (Hoffman, et al., 1998; Gulbranson & Audretsch, 2008; Romero & Roman, 2012). Stenmark (2001) and Liew (2007) stated that knowledge contains two adjuncts but not interchangeable concepts, they are data and information. Kebede (2010) and Alok et al. (2010) agreed with the statement by saying “knowledge is derived from information while information is derived from data” instead of “data is a set of discrete, objective facts which are stored in databases”. Knowledge contains a meaningful information and understanding which can be derived from studies, observations and experiences. It also combined with interpretation and reflection (Liew, 2007; Colin, 2009; Chikati & Mpofu, 2013). Knowledge is important for organizations as it provides improvements in the business process, activities and organizations growth. Knowledge can be categorized into two types: tacit and explicit (Smith, 2001; Kiku & Lori, 2009; Jones & Leonard, 2009). Tacit knowledge can be defined as the abilities, expertise and conceptual thinking. It is difficult to declaim as it exists in a person’s mind but can be seen through his action (Ponelis & Wessels, 1998; McNerney,

2002). Knowledge-knowers is difficult explain in efficient ways or sometimes they do not have enough sources to deliver their knowledge to those who need it. It is essential for organizations to stay competitive as it is not easy to be copied by others. For example, leadership skill is complex and difficult to teach. To be a good leader, it should be extended from experiences. Explicit knowledge is that part of knowledge that is written down and captured in some forms that allowed for others to access. This type of knowledge is easier to disseminate, articulated, codified, accesses and transmitted to others. This type of knowledge is printed on book, Internet or other visual means. This type of knowledge is defined as “knowledge of rationality” (Nonaka & Takeuchi, 1995; Mercer & Bawden, 2002; Liyanage, et al., 2009; Nordin, et al., 2009).

Knowledge-based thinking is the most significant strategic resources as this type of asset will generate competitive advantages (Akgun et al., 2007; Ailar, 2012). An organization should have enough knowledge and use them in the right ways in order to be successful. Plessis (Plessis, 2007) said the central position of today’s business world is covered by new ideas, knowledge, information and they are producer of services, innovation and creativity. New knowledge can create greater value. Besides, the new knowledge contribute in technology can lead organizations to success (Nonaka & Takeuchi, 1995; Sharratt & Usoro, 2003; Nicolás & Cerdán, 2011).

To survive in such competitive business environment, organizations should be innovative. Several researches have been carried out and proved that KM is one of the elements to help organizations be innovative (Calantone, et al., 2002; King, et al., 2002; Plessis, 2007). KM is a systematic and organizational framework that helps the organizations to acquire and communicate tacit and explicit knowledge of employees. Jun and Mohammad (Jun & Mohammed, 2012) said KM is also a process that helps the organizations to identify, select and transfer knowledge that is important as to develop and use their knowledge based resources. Pauline and Suneson (Pauline & Suneson, 2012) also said KM helps to transform individual knowledge into organizational knowledge. KM is an Information Technology based system that promotes the sharing of tacit and explicit knowledge of the organizations. Besides, KM can be identified as a process due to its continued growth and it requires some purposeful activities to be initiated (Maryam & Dorothy, 2001; Fei, et al., 2002; Peter, 2010; John, et al., 2012). Fugate et al. (2009) stated that KM is able to help the organizations to create, identify and process new knowledge while the old knowledge can be maintained in order to face the uncertainty of markets. The organizations able to make an effective decision based on the past experiences. Zaied et al. (2012) and Rafi (2014) also stated that KM is able to maximize the growth of organizations by utilizing the intellectual capital in order to offer services and products as market requirements. It acts as a good helper as it gathers the awareness of markets and competitors.

2.2 Knowledge Management as a Factor of Creating Innovation

There is a strong link between KM and innovation. Salojärvi et al. (2005) and Ju et al. (2006) both stated that innovation has been considered as one element that is associated with KM. Chatzkel (Chatzkel, 2007) and Baldwin and Hippel (2011) also stated that innovation is necessary for the organizations to improve the efficiency, effectiveness and competitiveness through innovation. The term innovation in organization covers “product and services”, “delivery process of products and services”, “marketing method” and “business practices” (Liao & Chuang, 2006; Meeta & Gupta, 2009; Louise & Hazel, 2016). Studies show that the amount of knowledge an organization possess will influence the innovation process. The processes and practices of KM will help to drive organizations toward innovation (Carneiro, 2000; Darroch & McNaughton, 2002; Scarbrough, 2003; Shani, et al., 2003). Distribution of

knowledge will help the employees to work better and smarter and produce a product that is more innovative (Hana, 2013; Kör & Maden, 2013; Kaveh et al., 2015). Innovation makes the organizations more competitive in the business market through the use of new or improved knowledge. Although innovation is “no longer a differential” but it makes the “continuity of businesses” (Mitchell & Coles, 2003; Wang, et al., 2008; Forsman, 2011; Hana, 2013; Mihić, et al., 2015).

Some studies show that the organizations should gain the external knowledge as this is correlated to innovation capabilities (Massa & Testa, 2004; Svetina & Prodan, 2009; Zaied et al., 2015). These external knowledges are conforming with organizations’ internal or tacit knowledge. Organizations should learn from outside sources in order to gain competitive advantages. New knowledge can be filled through new knowledge acquisition which helps to bring innovation. Innovation can be built during the knowledge sharing which underlines on tacit knowledge. When there is a frequently communication between workers in organizations, it helps to form a new combination of knowledge and new innovation will be created. At the same time, opinions are shared and tacit knowledge will be transferred. Proper sharing of knowledge is important as it brings innovation. Thus organizations should have proper channel within the organizations for employees to share their knowledge. An organization that focuses on implementing new knowledge is able to foster innovation compared to those organization does not focus on it (Tamer et al., 2003; Gloet & Terziovski, 2004; Akram et al., 2011).

Tacit knowledge does not only play an important role to foster innovation process but also focus on KM. According to Plessis (Plessis, 2007) and Kashif et al (Kashif et al., 2011), KM helps to describe tacit knowledge in the form of explicit knowledge and this brings innovation. Knowledge activities such as gathering, capturing, sharing, learning are important processes as they help to find the knowledge distance inside and outside of the organizations. Thus, it is important to ensure that knowledge should be available to the right person at the right time. Tacit knowledge can be shared during the common practices within organizations units, however there is a challenge for managers in knowledge resources. As the worker has gained and adopted new skills, knowledge and experiences, it is difficult for managers to capture and record.

2.3 Knowledge Management and Competitive Advantages

KM can be considered as an important element for the organizations innovation capabilities and competitive advantage is one of the key drivers of long-term success in 21st century. It is the key factor that helps to explore the new ways to create competitive advantages (Skalkos, 2012; Meihami & Meihami, 2012; Rahimli, 2012; Simaškienė & Stancikienė, 2014). Competitive advantages usually refer to the ability to earn returns of investment. Knowledge has become more associated with competitiveness due to its inimitability making it a valuable asset. Organizations should continuously look for new knowledge and effectively utilized in order to deliver a better value to their customers against their competitors. The organizations will face difficulty in maintaining their competitive position if they do not acquire new knowledge (Kiku & Lori, 2009; Moses, et al., 2010; Mahdi, et al., 2011; Mariya, 2014; Agbim & Idria, 2015). When the speed of innovation increases the organizations will be more efficient. Zhu et al. (2014) and John and Joann (John & Joann, 2015) have conducted their research and show that KM positively affects the outcomes of organization innovation, product improvement and employees’ improvement. Several studies stated that knowledge is the centre of global economic transformation and it delivers competitive advantages to the organizations (Collins & Smith, 2006; Carmeli & Azeroual, 2009; John et al., 2012; Rabbi, et al., 2015; Sameeni & Alvi, 2016).

Capital, data resources and human resources have been considered as primary competitive resources in most of the organizations. Sustainable competitive advantages do not mean rely on the physical assets and capital but effective channelling of intellectual capital (Leila et al., 2005; Chen, 2008; Kocoglu et al., 2009). There are two types of sources that support creating competitive advantages, they are superior skills and resources. By combining these two resources, it is able to create core competencies as activities in organizations and it is difficult for their competitors to copy. Thus KM plays a key role in these aspects (Rafi, 2014; Sani & Ahmad, 2015). KM can help to gain competitive advantages in different ways. The organizations can increase productivity if KM is applied effectively. KM is able to let the employees share and apply the desired knowledge rapidly. It also helps to transform the methods of meetings and increase productivity thus creates a value advantage (Chikati & Mpofo, 2013; Fadia & Kamel, 2014; Gavrikova et al., 2016). KM helps the organizations to create knowledge and allow the employees to gather and disseminate among each other which results better than their competitors (Bhojaraju, 2005; Nonaka et al., 2006).

3. Methodology

3.1 Method, Process and Techniques Adopted

This research paper is being completed within four months. The method that has been used to complete this research paper is using secondary research methods, such as collecting information from published journals, conference papers, articles, case studies etc. The case study I have chosen is “British Airways”. The reason to choose BA is it has successfully applied and used KM in their operations. Among different airlines industry, BA has effectively managing KM within its organization using variety of tools. In this case study, it shows that knowledge management has played an important role in managing the industry and minimizing the complexity of operations. It also explains how British Airways effectively managing the knowledge in their operations and the impact on the business. For the purpose of study, British Airways will be referred as “BA”.

3.2 Organization Profile

BA has celebrated 90 years of flying and it has been one of the most important mergers in airline history (Watson, 2013). It is a British airline company which operates both domestic and international flights. To trace back the history of BA, it should discuss from the birth of civil aviation. Their very first daily flight, an international flight, between London and Paris in 25 August 1919 under the name called Aircraft Transport and Travel Limited (AT&T). The flight has expanded to European destination and also Africa, Middle East and India in 1924. Finally, the organization combined with United Airways, Hillman’s Airways and Spartan Airways to form BA. BA has around 250 aircrafts, more than 57k passengers, 40k employees and 150 destination served (Airways, 2016). In between year 2001-2010, BA has faced problems such as financial crisis and disruption of air travel. Its competitors, Ryanair and EasyJet brought much threats to BA due to a better service. To overcome the problem, BA has started paying more attention to KM (Airways, 2013). BA has successfully gained a total revenue, £1,264 million in 2015 (Airways, 2016).

4. Discussion

Due to the global expansion and the business processes are getting more complex, KM has become an important element for BA. BA sees knowledge as a key factor to its future success in airline industry. KM refers to the cover of wide range tools, behaviours and tools to encourage the use of knowledge. BA believes that using knowledge in their operations will achieve innovation, creativity, meet customers’ demand and stay competitive in global businesses. BA has applied KM in their internal communication for knowledge sharing,

strategic planning, operational research and business strategy for better performances. This sections discusses and focuses on how BA has used KM in their daily operations.

BA has implemented different types of tools and applications which provide conveniences for their employees to communicate. Urgent news such as daily operations conditions and weekly documents about the organizations such as profit report, will be sent to every employee through email. BA has setup a forum on intranet which allows the employees to discuss daily issues directly among each other. Besides, managers and head of department can also provide the solutions to the problem the employees faced. Every department will also upload some useful resources to be used in their works. Sometimes weekly newspaper news regarding BA will be uploaded to be shared among employees. Application likes electronic learning module has been provided in order to enhance their knowledge on airline dynamics (Airways, 2007). BA prefers to use the applications that are similar to communication systems due to their employees' non-communication habits and are active on social networks. Thus, another application which introduced by BA, Yammer, is used to allow all BA employees around the world to communicate together (Yammer, 2014). Besides, this application provides some KM features such as self-profile viewing, group creation and documents collaboration. Compared to email, Yammer has a larger space for employees to store their messages. With the introduction of Yammer, this allows staff members such as front-line employees and cabin crew communicate with engineers and pilots and share their expertise. They are allowed to share their problems and solutions together. When BA introduced their first flight on new A380 airplane, the employees have used Yammer to share their impressions and feelings (Jones, 1996; Microsoft, 2013).

BA has established different groups within the company such as “Halo Group” and “Official Future” in order to address long-term issues and formulate solutions. The experts from the group focused more on predicting events and outcomes. The techniques used are story writing and rich pictures. Story writing is used to transmit values across the organizations, to strengthen the sense of trust and to develop emotional connection (Whyte & Classen, 2012). Using story writing is able to transmit tacit knowledge and facilitate innovation. There are two stories which produced by BA's experts. Story writing of BA are more focusing on its development and governance. Besides, the employees are able to gather supportive numerical data by analysing passengers' past data, economic growth and aircraft. This information is then to be used to develop future models and gathered in a stories booklet. Their technical staff also share their experiences with pilots to allow them to manage complicated situations. Another technique used is rich picture. This technique is used to build descriptive model of the stories. The way to communicate and explain the information through various objects such as pictures. BA has used this technique to explain the changes that might occur in future which influences the industry (Ringland & Schwartz, 2014). Figure 1 illustrates the driving forces that describes the future possible affects.

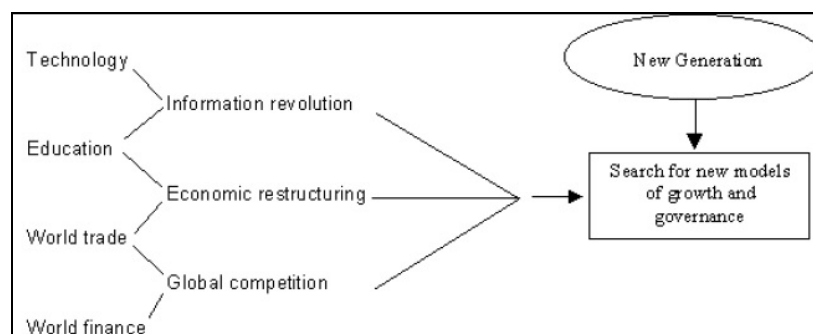


Figure 1. Driving Forces Describing Future Possible Affects.

Due to the governance and growth of the industry, a two-headed snake method is used to illustrate the emergence of new generation of leaders with two types of scenarios: “wild gardens” and “new structures” (Moyer, 1996). Wild gardens mean difficulty to build the new structure of governance in order to replace the old crumbling structures. New structures mean there are new ways of organizing that enables the growth. Figure 2 illustrates the governance and growth of BA, Figure 3 and Figure 4 shows the summary of wild garden and new structure respectively.

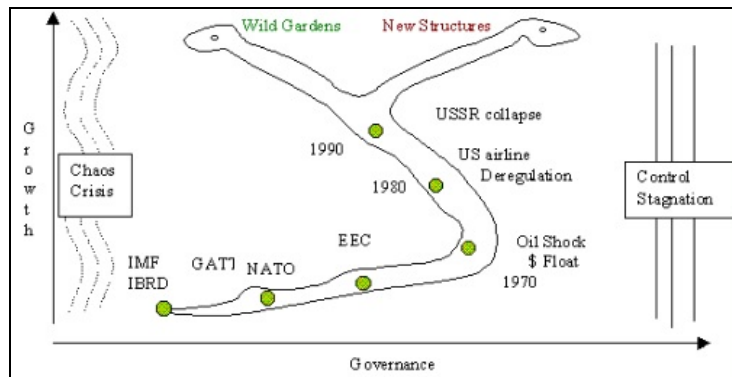


Figure 2. Governance and Growth of British Airways (Dash, 2014)

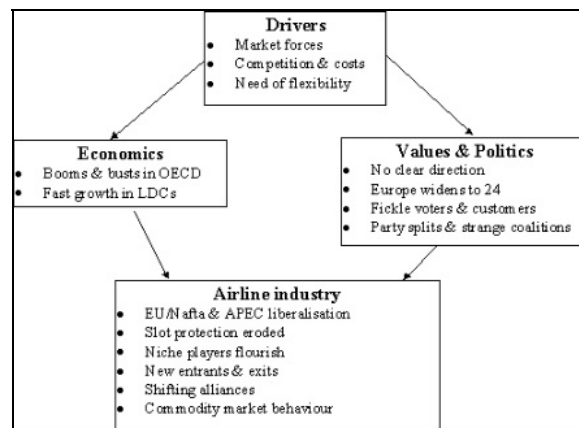


Figure 3. Wild Gardens Summary (Dash, 2014)

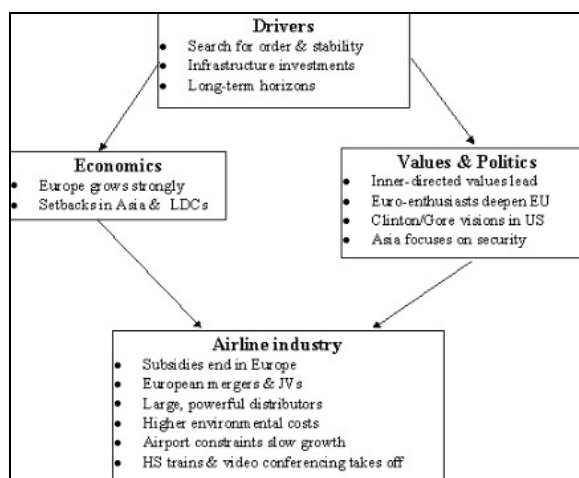


Figure 4. New Structures Summary (Dash, 2014)

During the discussion, the employees are able to exchange knowledge and brainstorming. After the employees in BA have discussed the scenarios using rich pictures, then they are able to use a new structured framework in order to implement new strategies. The new strategies are gathered and compared in a matrix form. Finally, the employees are able to find the external issues that will affect the industry. Through the discussion, the employees are able to discuss together, exchange knowledge to identify the customers' needs when discussing the new strategies. The results have successfully solved a lot of problems. The new strategies are able to align across different levels of management. These team workers have been recognized as a highly motivated and enthusiastic team.

BA also uses KM to enhance the customers' experience. In order to achieve this, BA started to manage their customers' data in database that incarnate the passengers' interaction. In the beginning, the customers' data are stored in different separate databases such as IBM, Oracle and Teradata (Newswire, 1999). After few years, they found that there is an increase of customers' data. The industry has decided to join the separate databases together. They have implemented a new scheme called "Ocean Wave" and a data warehouse to achieve this (MyCustomer, 2004). Now, the industry is able to collect the customers' data across the industry and they are used to manage customers' communications and global marketing. This has helped the industry to achieve one of their goals, that is to save cost around £1 billion. BA also created a program called "know me" in order to gather and analyse the online behaviours and purchasing habits. The program has served customers with unprecedented services. The program also helped the employees to access passengers' travel itinerary and complaint history. Since the program is introduced, it helps to save time around one month earlier to analyse data. Every flight assistant has been provided with an iPad tablet that contains passengers' data which include seats preference, passengers' complaints etc. (Admin, 2014). Based on these information, the flight assistants are able to serve passengers better. BA has used KM in improving their aircraft safety. They have used tablet, called "Panasonic Toughpad" that helps to increase the technical maintenance speed (Panasonic, 2013). Every technical characteristics of the flights will be recorded in the tablet. They are communicated to the technician and engineers immediately for them to fix the technical problems.

BA shows a great example that implemented an effective set of KM to stay competitive by improving the communication among the employees, strategic planning and customer services. The industry encouraged every employee to communicate in order to share knowledge. Technologies have been implemented and used by BA to improve the technical maintenance speed and the relationship among passengers.

5. Suggestions to Improve the Effectiveness of the Use of Organizational Knowledge

In order to improve the effectiveness, the organization will need to specify and identify the knowledge gap and how to achieve success factors through a better way. When the organization creates a new knowledge, the knowledge need to be compared with the knowledge the organization currently has. After the gaps have been found, actions need to be taken to eliminate these gaps. According to several researchers (Herschel, et al., 2001; Boiral, 2002; Zhao, et al., 2013), the organization can create new knowledge throughout the business entity. The employees can share their tacit knowledge among each other. When the business entity comes with high level of knowledge, it has the ability to improve the knowledge source of organizations. This helps to improve the organization's knowledge source as it acts as alternative exploitation of knowledge. An organization's new knowledge needs to be unique as it can create a sustainable competitive advantage. Organization needs to take advantage of public knowledge to produce unique procedures within business entity due to publicly accessible knowledge.

6. Conclusion

KM has successfully helped to generate values which has become an imperative for the organizations in new economy. Competitive advantage has become a core of the organizations in today's fast changing business world. Organizations are able to achieve competitive advantages and stay competitive in business environment when they practice a combination of KM. In order to achieve a sustainable competitive advantages, organizations should stay innovative and continue to implement new acquired knowledge. There is a strong link between knowledge and innovation. They have become a driving force for long term success for organizations. When a new knowledge has been created and incorporated into a new innovated products of organizations, competitive advantages will be built and the advantages of KM are realized. KM is able to create an innovative culture that encourages creating and sharing knowledge. Organizations should have a more effective way to support the process of implementing new knowledge. Besides, KM has played an important role in implementing a valuable and profitable ideas of organizations in business market. KM also helps to reduce unnecessary costs in business activities, increase the productivity, better decision making, faster problem solving and improve business processes. Thus, every organization should start implementing new knowledge and KM strategies as they as a main source to help the organizations to achieve success over others.

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