



Survey of Business Process Re-engineering Experiences in Iranian Travel Agencies

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ABSTRACT

Business Process Re-engineering (BPR) was introduced as a revolutionary business management concept[1]. On one side, re-engineering involves high potentials of increasing productivity by cost and process time reduction, quality improvement and customer satisfaction, and on the other side it requires a fundamental change in the organization[2], it also requires significant use of information technology in the process redesign. Tourism has a high contribution to a country's earnings. It is also one of the few industries that accepted e-commerce with open arms. Information technology has a significant role in improving tourism organizations processes, and it is very important for these organizations to implement an appropriate online environment and be able to integrate their business to achieve online and offline channel consistency. In this research the BPR project implementation status of some Iranian travel agencies has been studied and effective factors in BPR have been divided into two groups: efficiency factors and effectiveness factors. Results show that due to lack of proper understanding of the BPR process, efficiency and effectiveness factors have not been fulfilled desirably which has cost the BPR project of some travel agencies to fail.

General Terms

E-commerce, Tourism, BPR, Business Process Re-engineering

Keywords

Business Integration, E-Commerce, BPR, Tourism.

1. INTRODUCTION

Internet has combined most features of the existing media and interactivity, as a result not only individual's business models have changed but also it has changed the traditional social structure. Today millions of people around the world use the internet for purposes such as data mining, learning, entertainment, shopping, etc. with the extensive use of internet, the foundation of business models have altered and the market is leaning towards e-business models. Business process re-engineering is the analysis and design of workflows and processes within an organization. According to [3], a business process is a set of logically related tasks performed to achieve a defined business outcome. Re-engineering is the basis for many recent developments in management. The cross-functional team, for example, has become popular because of the desire to re-engineer separate

functional tasks into complete cross-functional processes. Also, many recent management information systems developments aim to integrate a wide number of business functions such as Enterprise resource planning, supply chain management, knowledge management systems, groupware and collaborative systems, Human Resource Management Systems and customer relationship management.

Travel and tourism generate approximately 11% of the worldwide GDP, which is a big contribution to a country's earnings. Travel agencies are a significant element of this industry. Considering the big role of e-commerce in the tourism industry, In order for these organizations to succeed, they have to be able to utilize the full potential of the online environment.

In this paper, the implementation status of travel agencies' BPR projects with the objective of online presence have been investigated. Taking into account that, e-commerce is still in its early stages in Iran and there are not a lot of successful experiences, It is important for organizations to implement BPR projects comprehensively and methodically. If the travel agencies do not follow the BPR framework thoroughly, it would cause them to endure significant costs without achieving the desirable results. Travel agencies have been categorized into four groups according to their BPR project implementation and some suggestions for improvement have been given for managers.

The results of this paper are based on the answers to the questionnaires filled by travel agencies managers (see appendix A), and the authors observation.

2. LITERATURE REVIEW

Business Process Re-engineering (BPR) was introduced as a revolutionary business management concept[1]. On one side, re-engineering involves high potentials of productivity increase by cost and process time reduction, quality improvement and customer satisfaction, and on the other side it requires a fundamental change in the organization[2] it also requires significant use of information technology in the process redesign.

Several studies in the field of re-engineering projects in the organizations and the reasons for their success and failure have been performed[4- 7]; [8] investigated the application and success of BPR projects in Australian organizations. Mehran Sepehri and colleagues[9] have examined the re-engineering execution in Iran. Maleki and colleagues in [10], have investigated the successful implementation of reengineering projects in Iran with regard to the key success



factors (CSF). Khodakaram Salimifard and colleagues examined the structure of key success factors (CSF) in the effective implementation of business process re-engineering in the Iranian banks[11]. So far, no research on re-engineering projects has been done on tourism industry in Iran. In this study with the purpose of investigating the BPR's implementation status, Iranian travel agencies have been examined from the perspective of entering the online environment and integration of the online and offline channels.

This research focuses on evaluating BPR projects of some Iranian travel agencies with the intention of entering the internet environment. 83 agencies were studied, out of which 41 had started their process re-engineering with the goal of web presence, and among those only 20 cooperated in the investigation process.

It is necessary to mention that these projects were similar to BPR process in content, although some of the managers might not be familiar with the literature of BPR.

To achieve success in these projects, these aspects should be considered[12]:

- The rate of success of BPR projects depends on the size and coverage scope of the project. Larger projects with wider scopes have prolonged duration and for this reason they have less chance to succeed, due to execution problems.
- The improvements in information technology infrastructure and e-commerce will have an impact on BPR projects dynamism.
- Like organizational change and implementation of information technology projects, the success of BPR projects highly depends on organizational elements and setting grounds for accompanying these elements.

3. SURVEY OF THE OUTPUTS

In this section we are going to analyze the acquired results. The responses and the evaluations have been represented in diagrams which have then been analyzed. In figure 1 the size of the travel agencies according to the number of their employees has been shown.

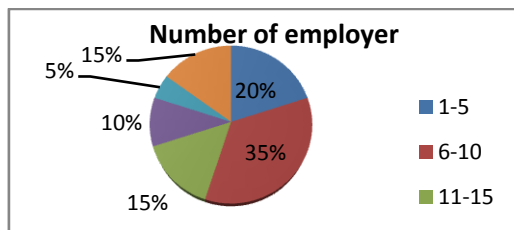


Fig1: Number of travel agencies employees

As can be seen in figure 1, the number of employees of 55% of the investigated travel agencies is under 10. One of the problems mentioned by these agencies about continuous web presence was lack of human resources to assign to online activities, which was more drastic for travel agencies with fewer workforces, but also the case for other agencies.

According to results, it seems that one of the mistakes made by travel agencies is paying too much focus on short-term profitability instead of long-term success.

As can be seen in figure 2, the original wave of moving towards online presence in the investigated agencies was the year 2008, which has a few years time lag comparing to more developed countries. Of course this could be predicted having the internet penetration rate of Iran and developed countries in mind.

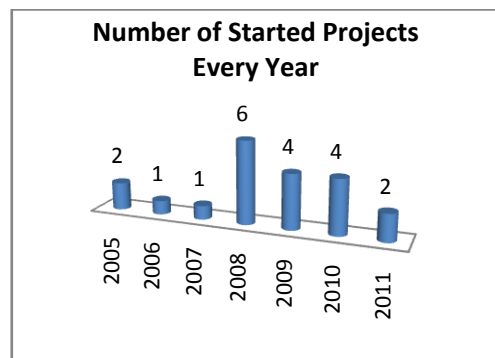


Fig2: Number of started projects every year

According to the statistics, from Iran's 77,891,220 population in 2011, only 36,500,000 use the internet which is a significant number compared to 250,000 users in the year 2000. The number of American internet users in the year 2000 was 95,354,000 which has increased to 245,000,000 in the last year[13] which completely explains the time lag. The internet penetration rate in Iran is 46.9% compared to the United States penetration rate which is 78.2% [14]. According to UNWTO's prediction the number of tourists in the world would reach 1.8 billion by 2030 [15].

Figure 3 represents the main drivers of travel agencies to enter the online environment. These drivers are important due to the fact that they are indicators of travel agencies real motives of entering the web. These factors can be categorized into two general groups: threats and opportunities.

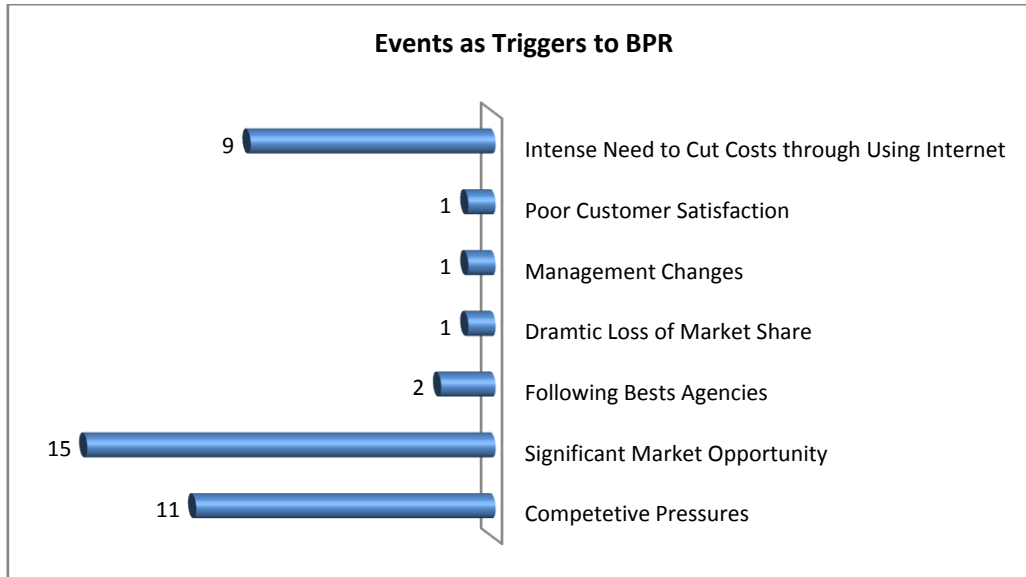


Fig3: BPR main drivers

Significant market opportunity is considered the main driver of agencies move towards the web presence. As opposed to the common consideration that the main driver to gain financial commitment of investors and managers, and initiating change is threat, results show that the evaluated travel agencies regard significant market opportunity as the main driver of moving towards the online environment.

On the next step the travel agencies were questioned about the changes they expected in their business processes (see figure 4). This step was very important for evaluation of their success to achieve these changes

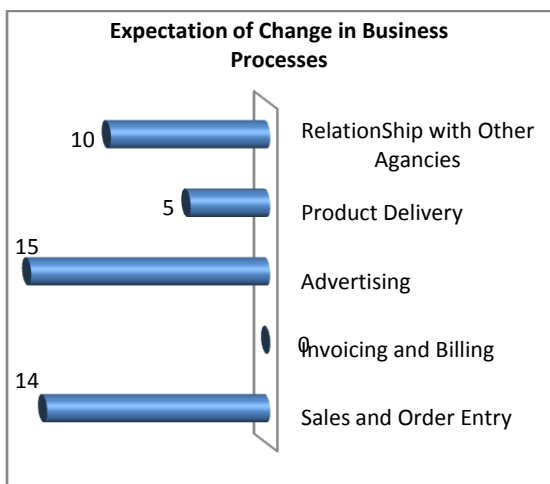


Fig4: travel agencies change expectation in business processes

Unexpectedly none of the travel agencies mentioned expecting any change in invoicing and billing processes by implementing their websites. In addition it can be concluded from the answers to the questionnaire that most travel agencies utilize their websites as an advertising tool; a catalogue.

Despite today’s customer-centric perspective, the travel agencies performances imply low consideration of customers and customer value creation such as online delivery of products and services and e-payment facilitation which could be perceived as value by customers.

In general most Iranian travel agencies carry their businesses on from a traditional prospect.

The respondents were asked indirectly about their BPR goals and objectives. As mentioned before due to the fact that some of the managers were not acquainted to the BPR concept, the indirect manner seemed more appropriate.

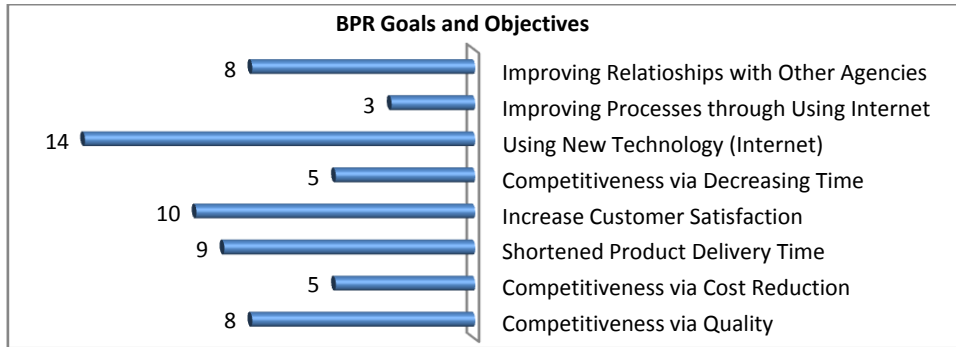


Fig5: BPR goals and objectives

Formulating long term strategies has become more difficult due to the continuously changing business environment [16], and gaining success in such environment, requires a great understanding of your competition, to understand what you are dealing with. Only then you will be able to achieve a sustainable competitive advantage.

Findings show that most travel agencies did not have an appropriate understanding of the competition and the competitive environment. As shown in figure 5 achieving competitiveness through quality improvement, cost reduction and decreasing time was not the dominant objectives of most travel agencies.

The most mentioned goal was using the new technology (internet), followed by increasing customer satisfaction and shortened product delivery time, which was surprising due to the fact that despite mentioning these items as agencies main objectives, not much effort has been put to achieving them, as none of the agencies facilitated electronic payment and even a large number of them did not even include product prices on their websites.

Table 1 shows the status of the evaluated travel agencies in different aspects of their BPR project. The first four columns constitute the phases of BPR process. The gained results indicate the extent of these agencies success to achieve their expected results. And the success or failure of their BPR projects is shown in the last column.

Table1. The efficiency and effectiveness factors

	EEP & IW%	Redesign%	NPV%	Execute%	Gained Results%	S/F
1	80	80	40	80	-	-
2	60	40	20	100	100	S
3	20	80	40	100	50	S
4	40	40	60	100	-	F
5	20	80	80	100	100	S
6	80	80	80	100	100	S
7	20	20	20	80	-	-
8	60	60	60	100	100	S
9	60	100	100	100	80	S
10	80	60	60	100	60	S
11	60	60	60	100	-	F
12	80	80	80	-	-	-
13	60	80	80	60	-	-
14	60	80	60	100	-	F
15	100	100	60	-	-	-
16	100	100	60	100	60	S



17	80	80	80	100	60	S
18	60	80	60	60	-	-
19	40	60	60	60	-	-
20	80	80	80	-	-	-

EEP: Evaluation Existing Processes

IW: Identifying Weaknesses

NPV: New Processes Validation

S/F: Success/ Failure

The factors surveyed in the questionnaires have been divided into two groups of efficiency factors and effectiveness factors. The efficiency factors focus on following the BPR execution stages and the effectiveness factors focus on what affects the projects outputs.

The evaluation and identifying weaknesses, redesign, validation and execution factors in figure 6 construct the efficiency factors and the organizational culture and change and gained results from the effectiveness factors.

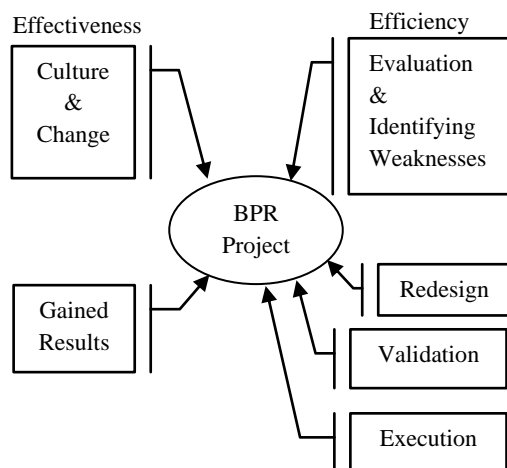


Fig6: Categories of BPR factors

It must be mentioned that this study has taken two different gained results into consideration, one from the travel agencies point of view which is shown in figure 7 and the other from the writers' point of view which is mentioned in table 1.

Due to incomplete implementation of some travel agencies projects, gained results of their BPR could not be calculated.

In spite of complete implementation of their BPR projects, some agencies still did not manage to gain their desirable BPR outcomes, these cases have been considered as failures.

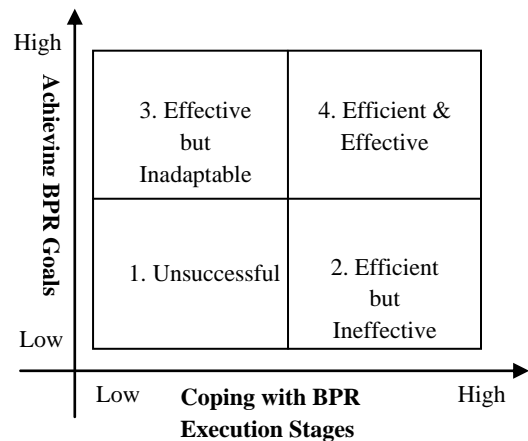


Fig7: Categorization of BPR projects

In figure 8 the importance of current process evaluation from travel agencies point of view and their efforts to evaluate their processes has been presented. As can be seen in spite of current process evaluation importance recognition, most of the travel agencies have not put much effort in this area.

[17] have made a comparison between BPR projects in approaching the ideal BPR project. This comparison is based on a two dimensional structure, one dimension coping with execution stages of BPR and the other one acquiring developed project objectives.

On this basis, they have categorized projects in four groups: unsuccessful, efficient but ineffective, effective but in adaptable and efficient and effective.

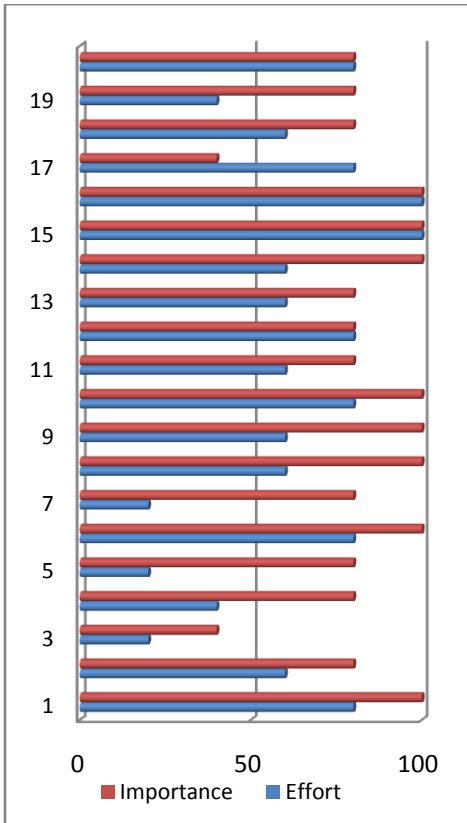


Fig8: The importance of current process evaluation and travel agencies efforts

- A. Unsuccessful. Projects that have not covered BPR project stages, and have not achieved their prospective goals either.
- B. Efficient but ineffective. These projects have progressed according to schedules adjusted for BPR projects, but for some reasons have failed in achieving their prospective goals.
- C. Effective but inadaptable. By covering different stages from BPR project phases, these projects have achieved goals other than BPR prospective goals.
- D. Efficient and effective. By adapting determined BPR project schedules, these projects have reached their prospective goals.

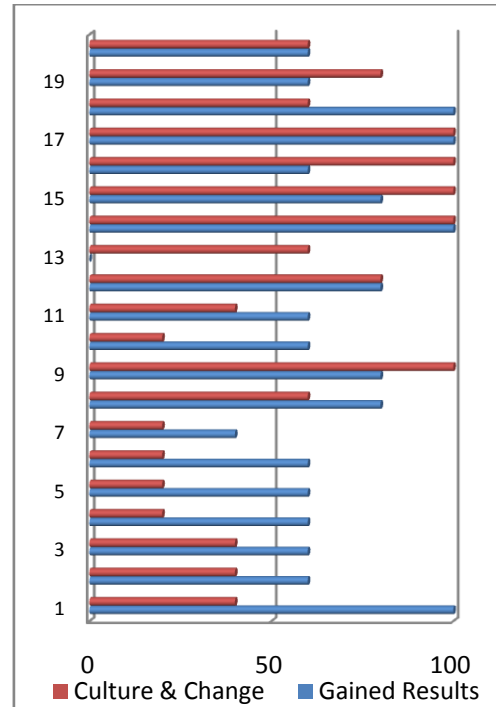


Fig9: the effectiveness factors of BPR

In figure 9, the effectiveness factors, culture and change and gained results are demonstrated. Most of the investigated travel agencies did not pay attention to changing the culture of the employees before or whilst conducting their BPR project. This could result in the employees not adopting the technology willingly and therefore not using it properly.

Figure 10 shows the implementation percentage of each phase of BPR, which represent the efficiency factors of BPR. As can be seen, all of the investigated travel agencies completed the overall recognition phase. Some of them like case 15 and 16 have also completed the next two phases. Some agencies like case 6, 17 and 20 generally did well, they paid even attention on every phase. Among agencies, number 3 and 19 entered the next phases without paying enough attention to previous phases.

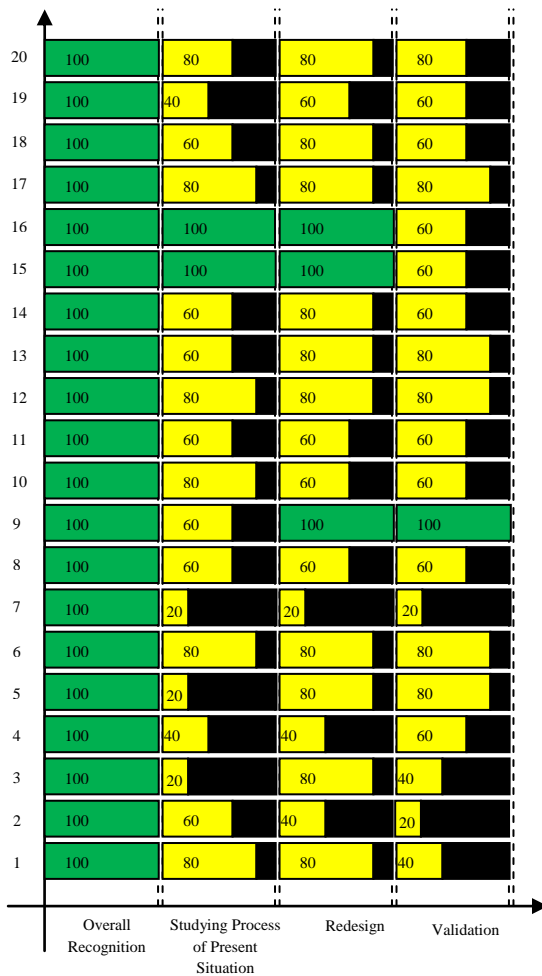


Fig10: The efficiency factors of BPR

As [17] mentioned in their research, some organizations achieve their goals without progressing according to the BPR phases. These projects might think they achieved success, but **Appendix A. The questionnaire**

The options of questions 4 to 10 are Very High, High, Moderate, Low, Very Low.

1	<p>What triggered your move towards the internet?</p> <ul style="list-style-type: none"> a) Competitive pressure b) Significant market opportunity c) Benchmarking d) Sales reduction e) Management changes f) Poor customer satisfaction g) Cost reduction through utilizing internet
2	<p>In which business processes do you expect change in</p> <ul style="list-style-type: none"> a) case of successful web presence? b) Sales and order entry c) Invoicing and billing d) Advertising and promotion e) Distribution f) Cooperation with other travel agencies

the truth is they will incur some problems eventually. Case 2 is a good example of this situation.

Sometimes organizations will implement the BPR phases completely and correctly but do not achieve their expected goals in the end, which can be due to obstacles in the macro environment.

4. CONCLUSION

In this research the BPR project status of some Iranian travel agencies have been studied. As shown in figure 10 most of the stages were not executed completely, overall recognition was the only stage that was successfully done in all of the travel agencies, but the other stages were left incomplete, specially the studying process of present situation stage.

As can be seen in figure 10, these organizations executed the studying processes of present situation stage poorly. This stage is of high importance, because without having a good prospect of the weaknesses and strengths of the current processes, improvement cannot be attained. Managers should try to pay more attention to this stage. With the proper recognition of the weaknesses, the next stages can be executed more effectively specially the redesign stage.

After analyzing the collected data from questionnaires, results indicate some agencies fall into the unsuccessful category while the rest are the case of effective but inadaptable. These agencies did not pay enough attention to the efficiency and effectiveness factors which originates from their lack of proper understanding of BPR projects. In order for the managers to be able to conduct a proper BPR project, they either choose a framework and try to follow it step by step, or hire a consultant who specializes in BPR and could guide them to achieve their desirable results.



3	What is your objective of online presence? a) Competitiveness via quality b) Competitiveness via cost reduction c) Shorten product development d) increasing customer satisfaction via quality improvement e) Competitiveness via time reduction f) Utilizing the innovative technology of internet g) Process improvement via IT h) Relationship enhancement with partners
4	How satisfied is the agency form its web presence?
5	How do you consider the importance of web presence?
6	How important do you consider studying the current processes of the agency in order to improve them via entering the web?
7	How do you evaluate your effort to evaluate the processes before entering the web?
8	How do you evaluate your success in finding solutions for the weaknesses ?
9	How well did the online environment help you to solve your problems?
10	How do you evaluate your effort to words promoting internet culture in your agency?

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