Goal-based Operation Process Modeling for the Mega Sport Event

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Introduction

Mega sport events, one of the core products in the sport industry, are inter-connected and affected by most of the human related systems of a hosting country such as politics (Burbank et al., 2002; Hilling, 2000), socials (Fredline & Faulkner, 2001; Kemp, 1999), cultures (MaCabe, 2006; Jonsson, 2003), and economics (Crompton, 1999; Kang & Perdue, 1994). Hosting a mega sport event provides an opportunity for fundamental system renewal in relations to national sport development, urban planning, economic development, community development, tourism development, and others. Many host cities or countries assume that the events create positive impacts (Dobson & Sinnamon, 2001). Since the event operations have been more complex than the hosting cities expected, many hosting cities (eg., Sydney 2000, Athens 2004, Beijing 2008) have incurred a big loss from hosting Olympic Games (Preuss, 2004; Malone, 2008; Economist, 2008). These facts explain that hosting the event does not necessarily guarantee the positive results to the hosting cities but give just ‘opportunity’ to develop positive impacts. As the scale of mega sport events becomes larger, the results from the events highly depend on optimized operation processes.

Despite of the importance of the process, most of the research on sport events has focused on either the inputs (feasibility studies) or the outputs (event legacies or impacts) of the events without consideration of the throughputs. From the sport event operations perspective, the core values of sport events are made by the operation processes and the impacts from the events are the peripheral values derived from creating core values. Operation processes of mega sport events, the value creator, have been regarded as a black box system in most of the literature.

This study attempted to explore the inside of the black box. The purpose of this study was twofold: one was to describe the mechanism of sport event by analyzing sport event stakeholders from the process management perspective and the other was to build a model of the goal-based sport event operation processes using business process analysis.

Methodology

The organizing committee needs to interact with several stakeholders throughout the event life cycle (Parent, 2008). The first step of the study focused on the sport event dynamics among the sport event stakeholders. For the understanding of sport event contingencies this paper used triangulation methods on the data gathering (Baek, 2006; Webb et al., 1966), the in-depth semi-structured interview (n=23), and peer-review was conducted. The interviewees consisted of the staffs of each functional area of the Korean Organizing Committee for the 2002 FIFA World Cup (KOWOC).

The second step of the study was to set clear goals for each functional area of the organizing committee. The official event documents, news articles on the 2002 FIFA World Cup, the initial goal sets were provided to the KOWOC staffs and the measurable and specific goals of functional area were elicited using the Goal/Question/Metric (GQM) methodology(Basili et al., 1994).

The third step was to restructure the functional work sets into process sets. After analyzing the whole functional work sets in the sport event operations phase, the core processes were identified by the IDEF 3 (Integrated DEFinition 3) (Meyer et al., 1995) modeling method and the process simulation was conducted to generate a standard process model.

Findings and Results

1. Sport Event Dynamics
In spite of the frequent use of sport event phases and the importance of the time concepts, there have not been clear explanation and definition of sport event time frames in sport event literatures. Furthermore, in practice, each department of organizing committees had different time concepts according to their work patterns. In this study, we clearly set the standard timeframe of the sport event and provided the transition criterion of each event phase (ex-ante event, preparation phase, game delivery phase, closure phase, and ex-ante event) and activities (conception/planning – implementation – evaluation – wrap up) of organizing committees. This time frame fits the drastic change patterns of the organizing committee members of the 2002 FIFA World Cup.

Throughout the interview, 26 stakeholders were identified (m=12.18 per department) and 6 attributes (resource, resource-processor, processor, processor-receiver, receiver, controller) were classified from the process view. The power of 6 types of stakeholders had been changed with the progress of event phases. Resource groups’ power had been slightly decreased and Resource-Processors’ power had been increased except the local sport federation. The Processor group maintains its power during the event life cycle while the Processor-Receiver and Receiver groups power had been relatively increased. The power of the Controller group had multifarious patterns respectively.

2. Goal-based process modeling

The success of a sport event means that the goal of hosting the sport event is achieved. However, most of the departments in the organizing committee did not have any specific and measurable operations goals. This study, in the first step, evaluated current goals of sport event operations and set clear goals using GQM methods. As a second step, by analyzing the interconnectivity processes of each functional departments to accomplish respective department’s goal, the core processes were set. Then, the functional areas were restructured into 8 processes (1. Event Production Process, 2. Games Resources Managing Process, 3. Financial Resources Managing Process, 4. Infrastructure & Operation Supporting Process, 5. Relations Process, 6. Organization Resources Managing Process, 7. Security Process, 8. Administration Process) through business analysis and modeling of the core processes (Event Production Process) using IDEF3 methodology. Finally, for the standardization of process, process simulation was conducted referring to operations processes of the other types of sport events (2014 Asian Games and 2011 IAAF World Championship Daegu). The process model developed in this study could allow the organizing committee to monitor, evaluate the core processes, and manage the sport event quality.