A Cooperative Social Platform to Elevate Cooperation to the Next Level – The Case of a Hotel Chain

Short Paper

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Abstract. This paper presents a cooperative social platform which was developed to accommodate the needs of a hotel chain. The web-based platform aims at interconnecting strategic functions that previously required the use of various tools that lacked interoperability. The platform encourages isolated managers of the hotel chain to interact and actively participate in the strategy formation and implementation. It provides novel functions that enhance the collective intelligence within the hotel chain, as well as enables the dynamic 'sensing' and 'acting' upon customer feedback. Results from the case study show that the platform enhanced bottom-up change and increased the pace of innovation, while the hotel chain became more cohesive and demonstrated evidence of 'self-organization'.

Keywords: Cooperative social platform, self-organization, collaborative strategy formulation and implementation, collective intelligence, synergy.

1 Introduction

Having well entered the globalized networked era, business organizations are confronted with new challenges. Obstacles to entering new markets have been reduced and thus organizations can expand their operations into new regions more easily. Given though the continuous pressure for change at all levels of the organization, centralized control gives place to more decentralized organizational structures. At the same time, the increased turnover rate of managers makes organizational knowledge increasingly vulnerable. The experience and knowledge obtained through the years, unless captured, can be lost. Hence, the role of an Information System (IS) in terms of supporting the cooperation and knowledge transfer among the members of geographically distributed organizations has become critical.

In the last decades, a specific class of ISs referred to as "Cooperative Information Systems" (CISs) has emerged to tackle the challenges of the contemporary business environment and the lack of interoperability among ISs. As Lezoche et al. [1] note, CISs "provide a backbone for the integrated information infrastructure". Given the

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development of the web, a number of cloud-based applications usually referred to as corporate social networks or platforms have emerged aiming at integrating the parts of the decentralized organization.

This paper discusses the impact of a cooperative social platform (CSP) which was developed and applied in the case of a hotel chain. The remaining of this paper is structured as follows: Section 2 presents the challenges faced in the case study of a hotel chain and the limitations of the ISs in place. Subsequently, section 3 describes the functionalities of a web-based cooperative platform that was developed and the benefits from its application in the hotel chain. The last section discusses the conclusions from this research and areas for further research.

2 Background

A hotel chain in Greece was used as the main case of this research. The initial phase of the empirical study began with an investigation of the existing strategic businesses processes and the supporting ISs in place over a one-year period. Subsequently, interviews were conducted with key stakeholders of the hotel chain with the aim to identify possible limitations of the ISs in place. The hotel chain consists of six geographically distributed hotels, five of which have been established in the last ten years. During the study of the hotel chain and based on interviewees' input, it became apparent that the hotel chain was facing new challenges. The level of competition in all regions where the hotels of the chain resided was unprecedented. Hence, hotel managers were given more autonomy in order to respond more effectively to the local market needs. However, this meant that the hotel chain as a whole was becoming less cohesive and internal knowledge transfer was becoming a challenge. At the same time, the hotel chain was experiencing an increased turnover rate of employees, which was often affecting business continuity.

Given the above challenges, the hotel chain was using a number of IS to support its nation-wide business processes. More strategic functions for supporting the managers of the hotel chain were addressed by a number of synchronous and asynchronous tools that existed within the corporate intranet. Asynchronous functions included an Announcements area, a Calendar, a File Management System, a Discussion Forum, a Search functionality, a Brainstorming tool and a Project Management tool. Synchronous functions included Chat, Google Voice and Video Chat. Finally, further to the corporate intranet, knowledge was frequently transferred internally or from the external environment through the use of email communication.

By critically examining the ISs in place in terms of supporting cooperation within the hotel chain, three main limitations were identified. First, it was noticed that the various tools which were used lacked interoperability. For example, if a manager of a hotel unit was interested to find all the knowledge related to a particular change undertaken in the past, he or she would be required to search in various sources such as the discussion forum, the brainstorming and project management tool, within electronic files or email conversations. As a result, valuable knowledge was typically disintegrated and therefore could not be easily traced, queried and reused. The second

limitation was the fact that the existing ISs treated the hotel chain as a hierarchical organization which was led from the top, rather than an organization consisting of self-organizing communities. More specifically, a hotel unit was typically treated as belonging only to a certain hotel and not as being part of a larger community consisting of other hotel units that had similar structural characteristics and purpose. For example, a restaurant unit was typically treated as only being part of a hotel and not as being part of a wider community which consists of all the restaurant units across the chain. This meant that structurally similar hotel units operated in isolation and that cooperation among them was limited. Thirdly, the existing ISs in place did not support effectively the interaction of the hotel chain with external parties such as business partners (suppliers), customers and job candidates. The key processes with external parties were not well supported and took place usually through email communication. For example, requests towards suppliers such as a purchase order or a corrective action due to a non-conformity of a product usually occurred through email. Similarly, the application process of job candidates was typically communicated through email. Also, feedback received by customers and the corrective actions undertaken in relation to the feedback provided constituted valuable knowledge which was not effectively managed.

To summarize, the variety of tools used by the hotel chain, the fact that such tools had not truly conceived the organization as a set of self-organizing communities as well as the limitations in terms of interacting efficiently with external parties delimited the potential of collaboration and knowledge exchange within the hotel chain. As a consequence, the prevailing approach to change was the top-down approach where change and knowledge was driven from the top, either by the hotel manager or the top-management at the headquarters.

3 The Adoption of a CSP

Given the above limitations, the management of the hotel chain explored the possibility of installing a CSP for enhancing further the cooperation and knowledge flows within the hotel chain. The adoption of CSPs has been recently widespread. The key characteristic of such platforms is that they incorporate functions provided by common social media tools (i.e. Facebook) such as microblogging, dynamic commenting, "liking" and an activity feed. A number of commercial CSPs exist such as Yammer [2], Saba Cloud People [3] and Jive Software [4]. However, the application of such tools in the hospitality sector is limited.

The management of the hotel chain preferred the solution of a custom platform in order to address the more specific needs of a hotel chain. Further to the standard functions of a CSP, the platform would also support typical processes with external parties such as business partners, customers and job candidates, as well as would structure the knowledge created within the platform in a more organized manner. All posts would be categorized based on the relevant topic and would be easily filtered based on their popularity or date published.

The platform has been developed using PHP5 and MySQL 5.5 and has responsive design which enables access from any mobile device. The platform provides the standard social functions and further groupware functions such as the grouping of users into communities of practice. Moreover, it provides typical synchronous functions such as chatting, file transfer, screen-sharing and voice and video communication.

Further to these functions, the platform provides five main features which have aimed to elevate cooperation within the hotel chain to a new level. At first, the "Ideas" function acts as a collaborative strategy formulation process which allows any community member to propose ideas or suggestions and receive feedback by any interested party. All ideas are classified according to the relevant community and are automatically ranked based on the ratings received by their community members. Next, the "Initiatives" function provides to the members of a community the possibility to share the implementation plan of their actions and receive feedback by their peers, giving rise to a participatory form of strategy implementation. Upon completion of a change, community members can rate the impact of the implemented change and provide feedback, as well as share their thoughts and lessons learnt from the action. The platform provides functions for cooperation with external parties too. The "Business Partners Center" is a function that enables the members of every community within the hotel chain to create a directory of preferred partners (suppliers), supports typical business processes such as purchasing orders as well as provides the possibility for evaluating the business partners. The "Applicant Center" is another collaborative function that enables the community members to create a pool of candidates in combination with their evaluation during interviews performed. Applicants can be notified about the status and outcome of their application.

Last but not least, the "Feedback" function provides to the members of a community the possibility to receive feedback by customers who had stayed in any hotel of the chain with the use of an online questionnaire. The platform then provides comparisons of the performance of every community within the hotel chain (i.e. the restaurant units across the hotel chain), giving rise to the phenomenon of "coopetition" [5] which implies simultaneously cooperative and competitive behavior. The Feedback function in fact acts as an alert to those community members that are performing below average, thus promoting corrective action and self-organization.

The study of the application of the platform adopted by the hotel chain lasted fourteen months. Access to the platform was not restricted to the managerial level but included all members of staff that were IT literate. Access rights to the content posted within the platform were carefully assigned. At the same time, both an individual and a group incentive were provided to motivate the users to share their knowledge, ideas and initiatives within the platform. The individual reward was non-monetary. The member of staff who posted the knowledge obtained upon undertaking initiatives for change would be appointed as the "Member of the Year" and would be awarded a complimentary three days stay in one of the hotels of the chain. Moreover, the members of the most active group (i.e. restaurant members of staff across the hotel chain) in terms of knowledge creation would be rewarded with a complimentary daily excursion.

The follow-up interviews that were conducted with the same stakeholders that were interviewed before the application of the platform demonstrated significant benefits for the hotel chain. Knowledge was not anymore fragmented within various sources-silos but could be easily traceable within a single and easily searchable platform. Furthermore, by capturing and sharing systematically every change within the Initiatives area, it became possible for the members of a community to reapply successful changes which have been implemented by their peers. The transfer of horizontal knowledge -directly among the members of a community- became possible and thus it was not only top-management that solely led change. For example, as Fig. 1 shows, knowledge was transferred horizontally between the hotels or the similar departments residing within the hotel chain. As a consequence, successful actions could be reapplied more easily since community members had all the necessary knowledge related to a particular initiative.

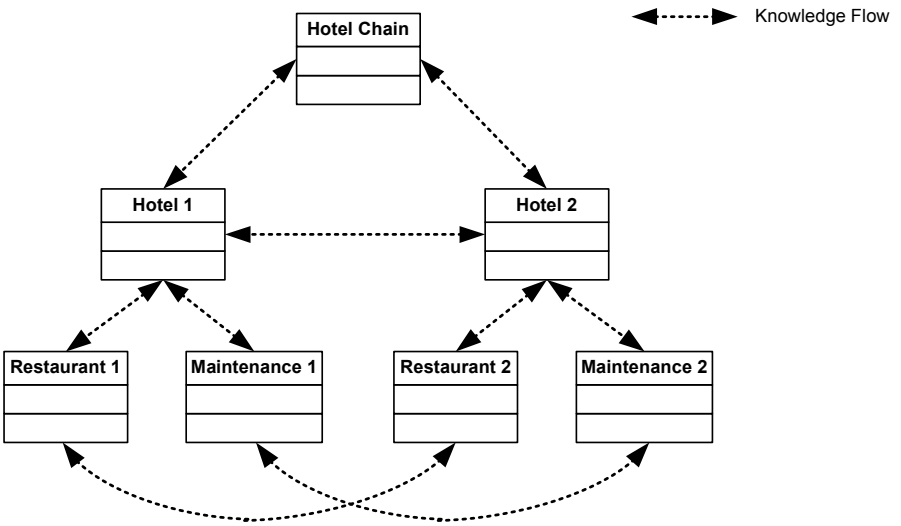

Fig. 1. Horizontal knowledge transfer between hotels and hotel departments for self-organization

More specifically, over the fourteen months application period, the total number of initiatives for change recorded in the platform was ninety-two (92). Twenty nine changes were initiated from the headquarters (top) and sixty three were initiated from the bottom, either from the hotel managers or the members of a hotel unit. Eighty one initiatives were implemented, while the rest were either abandoned or postponed for the future. Most of the changes were considered as incremental improvements to the existing processes. Out of the ninety-two initiatives for changes, twenty six were reapplied within the period of the study, while the reapplication of another seven changes had started but their implementation had not been completed by the end of this study. In all twenty six changes which were reapplied, the managers found easily

all the relevant knowledge created upon the brainstorming, implementation and evaluation phase of the change within the CSP. In fact, the headquarters were mostly involved in terms of authorizing decisions for change that initiated considerable expenditure. It can be said that the role of the headquarters was gradually changing from "leading" to "listening".

Another characteristic which was noticed during the period of application of the platform in the hotel chain was the improved pace of innovation and cohesion. Changes are now reapplied faster across the hotel chain as the members interested in a certain change don't have to "reinvent the wheel". All the details related to a particular initiative such as the implementation plan and obstacles faced during the change have now been well documented. In fact, in four cases of change it was also noticed that the members of a group collaborated actively in order to decide jointly about the best course of action of an initiative for change. This was achieved through the asynchronous functions Ideas and Initiatives.

Another aspect which demonstrated the improved ability of the hotel chain to self-organize was the possibility for new members to integrate in their role easier. A smooth integration of new managers would mean that top management would not be required to put significant effort into training and explaining the rationale of past initiatives for change which were now recorded in the platform. In fact, the users and particularly the members that had recently joined the hotel chain considered this as the biggest asset of the CSP.

The extranet that was created for organizing and collaboratively evaluating the suppliers as well as the job candidates of the hotel chain proved useful too. Such functions enhanced synergies among the hotel chain as the knowledge obtained from the evaluation of the suppliers was not anymore kept distributed across the hotel chain. The same applied for HR functions such as the selection and evaluation of candidates, a process which was typically performed by the headquarters.

Finally, self-organization was also enhanced by the ability of the CSP to project dynamic views that enabled the comparison of the performance between the members of a group. Such comparison acted as a mechanism for motivating managers to be more alert and undertake more initiatives which shall improve the sustainability of their units. With the new KMS in place, managers now needed to be more alert, to monitor the initiatives of their colleagues and reapply them when found applicable.

4 Conclusions

This paper aimed to demonstrate how CISs such as a CSP can elevate cooperation to a new dimension: namely that of self-organization. The adoption of a CSP by a hotel chain has been used as a case study. As the follow-up interviews with key stakeholders of the hotel chain indicated, the platform brought considerable benefits to both the members of the communities and higher management. The findings suggest that the application of the CSP, which is extensively used by the hotel chain up to today, reduced top management's intervention to promote change, while organizational cohesion and the pace of change increased.

A number of areas for further research are suggested. To name a few, a potentially interesting area to explore would be the application of a platform in global organizations operating in different sectors and for a longer period of time. Finally, a socio-technical factor such as the use of incentive systems for motivating the users to contribute their knowledge is another element that requires further research.

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