

Association for Information Systems

AIS Electronic Library (AISeL)

ICEB 2009 Proceedings

International Conference on Electronic Business
(ICEB)

Winter 12-4-2009

Idea Diamond: a Systematic Innovation Model for Social Network Services

I-Chieh Chu

Seng-cho T. Chou

Follow this and additional works at: <https://aisel.aisnet.org/iceb2009>

This material is brought to you by the International Conference on Electronic Business (ICEB) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ICEB 2009 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

IDEA DIAMOND: A SYSTEMATIC INNOVATION MODEL FOR SOCIAL NETWORK SERVICES

I-Chieh Chu¹ and Seng-cho T. Chou²
 Global MBA, College of Management
 National Taiwan University, Taiwan
jicch00@gmail.com; chou@ntu.edu.tw

Abstract

Social network service (SNS) – the web-based interaction tool introduced in late 20th century – has become increasingly popular in modern life. The SNS providers' capability of launching a 'killer application', i.e., an attractive interface that motivates user engagement and stickiness, plays a crucial role in surviving the keen competition in the SNS market, and the development of such a service requires rapid and continuous innovation practice. This study proposes an IDEA Diamond model that aims to help SNS providers effectively develop (through a well-defined process and systemized methods/tools) new services that can meet user needs and deliver exceptional user experience.

Keywords: social network service (SNS), new service development (NSD), service engineering, service experience engineering (SEE), service innovation, killer application, user experience

Introduction

SNS is a web-based service via which users can manage their social network by selectively revealing their own profile and viewing others' despite time or space limitations. Since the inception of BBS (bulletin board system, the earliest recognizable SNS) in the 1980s, prominent SNSs such as *Wretch* (Taiwan/1999), *Cyworld* (Korea/2001), *Skyblog* (French/2002), *Facebook* (USA/2003), *Mixi* (Japan/2004), *Twitter* (USA/2006) and *Kai-Xin* (China/2008) have arrived sequentially to buttress the sensational utilization of social network websites around the world. SNS allows users the freedom to 'articulate and make visible social networks' [1], which reinforces users' sense of connection with other friends and thus their loyalty to the service.

Many SNS providers are seeking a 'killer application' that effectively boosts user volume, but no SNS provider can guarantee which application would 'kill' and how to make it happen. A question is therefore raised: *Is there a systematic service innovation methodology that SNS providers can adopt to better understand what users want and, hence, engender the most desired 'killer application'?*

Available literature on service innovation

contains *new service development* (NSD), *service engineering*, and *service experience engineering* (SEE). NSD aims to, based on a deep understanding of customer needs, offer customer-centric, quality services via a predefined set of activities that moves the project from the idea stage to final launch [2-15].

Although a large amount of NSD research has been accumulated, many service firms still lack strategic focuses, development competencies and appropriate organizational structures for service innovation in practice [15-18]. German scholars, deeming NSD purely marketing-oriented and unable to provide concrete methods/tools for implementation, coined a technical-methodological approach – service engineering. Service engineering borrows existing engineering know-how from traditional product development in the manufacturing sector to offer predefined guidelines, clarified order of activities, rigidity and situation-specific flexibility that help boost service development efficiency [19].

Most service engineering research results are kept in the database of the German industrial design institute Fraunhofer IAO, whose research activities focus on 1) planning a strategy aligned to the competitive environment and the market, 2) organizing future-oriented technology deployment structures, and 3) identifying advanced ICT systems suitable for companies in industry and the service sector [20]. A ServLab was founded in 2006 to offer multi-faceted solutions for industrial upgrades from 'High-Tech' (generic product development) to 'High-Touch' (integration of 'soft factors' such as human resources and customer interaction in service development). Figure 1 exhibits the service engineering process at Fraunhofer IAO.

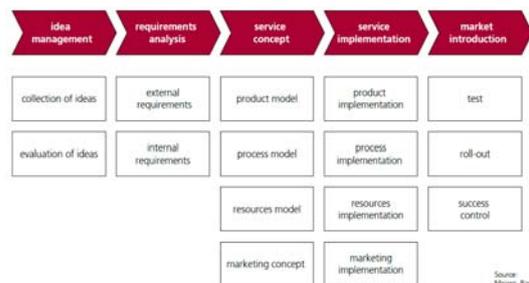


Figure 1. Service Engineering at Fraunhofer IAO

Another reputable service innovation institute is the American global design/ innovation consultancy IDEO. Founded in 1991 by David Kelley, IDEO has helped numerous companies deliver memorable user experiences and refine the experience delivery system via its *design thinking* (Figure 2) approach, which ‘uses the designer’s sensibility and methods for problem solving to meet people’s needs in a technologically feasible and commercially viable way’ [21].

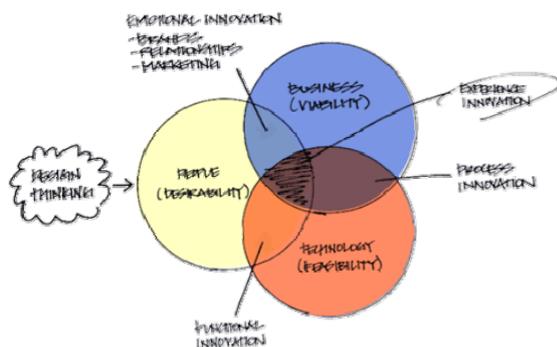


Figure 2. IDEO’s Design Thinking Approach

To further enhance the mechanism of service development, the Institute for Information Industries in Taiwan incorporated Fraunhofer IAO’s service engineering technique with IDEO’s user experience analysis to construct a systematic service innovation methodology – the *service experience engineering* (SEE).

SEE divides service innovation process into three phases: 1) FIND, 2) InnoNet, and 3) Design Lab (Figure 3), with an ultimate goal of creating memorable service experience for users. Pine and Gilmore (1998) state that experiences represent the next step in the evolution of economy [22]. Design of experience involves a considerable amount of user interaction. SEE, hence, provides solid methods/tools for service providers to explore user concerns and improve the service itself and the service delivery system accordingly.

SEE can be considered the most full-fledged service innovation model for the moment, but its enormous architecture may cause implementation difficulty for practical users. In addition, available SEE-related documents neither give instruction on the methods/tools utilization nor categorize them by situation-specificity. Additional effort is required to translate the SEE framework into a more user-friendly action plan.

To overcome the insufficiencies of current service development models, a more

inter-disciplinary, comprehensive and practical methodology must be built to help SNS providers boost innovation success rate. This need triggered the formulation of a new service innovation framework – the *IDEA Diamond*.

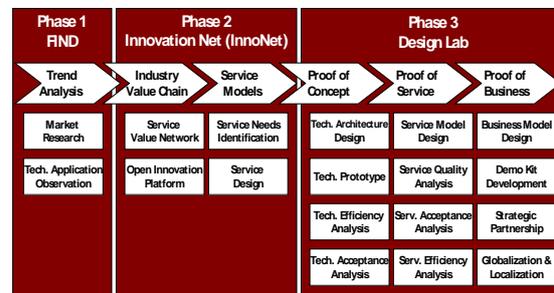


Figure 3. SEE Framework

This qualitative study examines the IDEA Diamond’s feasibility in helping SNS providers deliver a ‘killer application’ and identifies variables (e.g. drivers, constraints, obstacles) that would affect the effectiveness and consequence of IDEA Diamond implementation. Approaches that optimize the IDEA Diamond’s value-add will also be sought. The IDEA Diamond was implemented with an established SNS provider on a trial basis and the process was documented as a case study.

IDEA Diamond

The IDEA Diamond consists of four stages – Investigation, Decision-making, Execution and Assessment (the name IDEA is the acronym of these four stages). User feedback collected in the final (Assessment) stage may identify more unmet market demand, spot new business opportunities and thus initiate another cycle of service innovation. Therefore the conceptual framework is represented with a diamond shape (Figure 4). The heart of the diamond is a *theme* that guides the entire service development process. It can be perceived as a *motif* on top of which the composition of a new service is built, or a *mission statement* that leads the innovation activities toward a singular goal without deviation. The execution of IDEA Diamond could be an iterative instead of a linear process despite its predefined order: *Investigation* → *Decision-making* → *Execution* → *Assessment*.

The concept of ‘diamond’ is inspired by Porter’s Diamond Model (1990). Every innovative idea can be viewed as a diamond in the rough. The purpose of building the IDEA Diamond is to transform innovative ideas into profitable service products, and such process resembles cutting a rough gemstone into a valuable jewel.

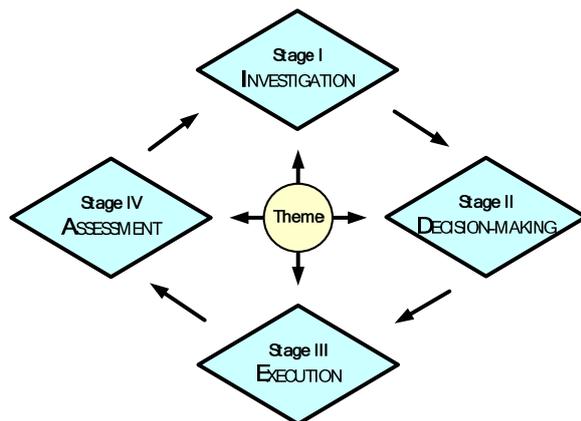


Figure 4. IDEA Diamond Conceptual Framework

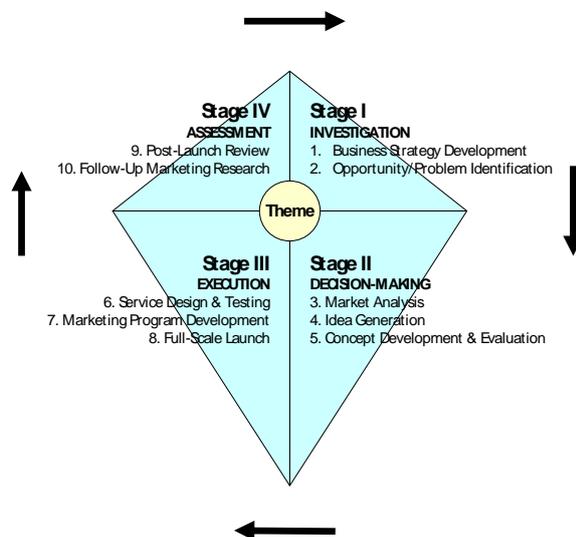


Figure 5. IDEA Diamond with Process Steps

The IDEA Diamond, consolidating prominent NSD theories, splits the innovation process into 10 steps. Figure 5 illustrates how the 10 steps are assigned to the appropriate stage. Each process step aims to answer one or more key questions. Practical methods/tools from SEE and other available literature are adopted to help find answers and solutions. Flexibility remains in the selection of methods/tools to accommodate the executor's resource, time and knowledge constraints. A review meeting takes place at the end of each process step to assess the feasibility of selected methods/tools and the implementation efficiency.

Unlike the product development activity in manufacturing that depends heavily on internal R&D staff, service innovation treats customers as a key source of information and creativity [23,24]. Customer involvement thus plays a significant role in IDEA Diamond implementation. In addition to interviews and surveys, IDEA Diamond encourages potential users to contribute more to

new service development and management by actively participating in idea generation, service design, prototyping, product testing and trouble shooting [25].

The next section provides an overview of the IDEA Diamond's 10 process steps, 18 key questions and recommended methods/tools, with a description of each step's major task.

STAGE I. INVESTIGATION

Step 1. Business Strategy Development

Key Question(s)

- 1.1 Does the innovator have macro-economic insight, i.e., a thorough understanding of the megatrend and the competitive environment?
- 1.2 What are the short-term and intermediate goals of this service innovation project?
- 1.3 What resources are available?
- 1.4 What is the most cost effective way to systemize the subsequent set of service innovation activities?

Suggested Methods/Tools

- Trend Analysis
- **Strategy Chart
- **Five Forces Analysis (Porter, 1979)
- **Resource Planning

(Note: Tools with ** sign are NOT from SEE.)

Major Task Description

In this step, the innovator must:

- 1) Rapidly accumulate knowledge on the status quo and future possibilities of the industry;
- 2) Clearly define the goal(s) that will drive the innovation activities toward a singular direction without deviation.
 - **The Israeli physicist and management consultant E. M. Goldratt stresses in his business novel *The Goal* (1986) that, 'Every action that does not bring the company closer to its goal is not productive...Productivity is meaningless unless you know what your goal is' [26];
- 3) Wisely allocate resources available.

Step 2. Opportunity/Problem Identification

Key Question(s)

- 2.1 What is the market demand that has not yet been fulfilled by existing service products?
- 2.2 Does the collected data spot any problem or business opportunity?

Suggested Methods/Tools

- Market Research
- Requirement Analysis

- Customer Observation
- Silent Shopper
- Customer Questionnaire
- Means-End-Chain, MEC
- Personal Conversation (Interviews)

Major Task Description

In this step, the innovator must:

- 1) Understand market needs, especially the unmet ones;
- 2) Identify the failure points within the delivery process of currently available service products.

STAGE II. DECISION-MAKING

Step 3. Market Analysis

Key Question(s)

Is there a specific market segment or target group that the service should be designed for? If yes, who are they?

Suggested Methods/Tools

- Evaluation of Customer Survey
- Demand Analysis
- Customer Value Analysis
- Lead User Analysis (*Persona)
- **STP

Major Task Description

In this step, the innovator must:

- 1) Determine the market segment and target group to focus on;
- 2) Verify the market position of the service in question;
- 3) Explore the demand of the 'targeted customers'.
- 4) Compose a comprehensive **business plan**.

Step 4. Idea Generation

Key Question(s)

What are the possibilities for our new service product?

Suggested Methods/Tools

- **Brainstorming
- **Brainwriting
- Focus Group
- Customer Workshop
- Customer Panel

Major Task Description

In this step, the innovator must:

- 1) Collect as many creative ideas as possible, from both the internal service innovation team and potential customers.

**In Fraunhofer IAO's service engineering model, idea generation precedes requirement analysis (Figure 1). The IDEA Diamond, however, switches the order with a belief that ideas should be generated based on surveyed customer requirements.

Step 5. Concept Development and Evaluation

Key Question(s)

5.1 *Which one of the ideas generated in Step 4 has the highest potential to become a profitable service product?*

5.2 *Reasons?*

Suggested Methods/Tools

- Concept Test
- Kano Model
- Service QFD
- **Devil's Advocate

Major Task Description

In this step, the innovator must:

- 1) Filter and prioritize ideas collected in Step 4 before putting them into practice;
- 2) Decide the idea that will be shaped into actual service product;
- 3) Document the 'abandoned' ideas for future use.

STAGE III. EXECUTION

Step 6. Service Design and Testing

Key Question(s)

Is the new service able to meet customers' expectation and creating memorable experience?

Suggested Methods/Tools

- Service Simulation
- Scenario Technology
- Sequential Outcome Method
- Service Blueprinting
- Critical Incident Method
- Prototyping
- Service Test

Major Task Description

In this step, the innovator must:

- 1) Simulate the service delivery scenarios in detail;
- 2) Produce a service prototype;
- 3) Test the effectiveness of the service by offering free trials to potential customers;
- 4) Discover the service's insufficiencies and make improvements.

Step 7. Marketing Program Development

Key Question(s)

What is the most appropriate 'marketing mix' for this new service product?

Suggested Methods/Tools

- Service SWOT Analysis
- **Marketing Mix

Major Task Description

In this step, the innovator must:

- 1) Develop a marketing strategy based on a thorough analysis of the service's strengths, weaknesses, opportunities and threats; Devise a feasible marketing plan.

Step 8. Full-Scale Launch**Key Question(s)**

What are the most cost effective marketing tactics to launch the new service?

Suggested Methods/Tools

- **Advertising Campaigns
- **PR Events
- Customer Events

Major Task Description

In this step, the innovator must:

- 1) Optimize the advertising budget;
- 2) Inform potential customers of the new service;
- 3) Encourage potential customers to try the new service.

STAGE IV. Assessment**Step 9. Post-Launch Review****Key Question(s)**

- 9.1 *Does the new service fulfill the unmet market demand identified in Step 2?*
- 9.2 *Are there any failure modes in the delivery of the new service?*
- 9.3 *How should the failure modes be removed (e.g. by improving the existing product or developing a new one)?*

Suggested Methods/Tools

- Customer Care Centre
- Evaluation of Empiric Reports from the Customer Contact
- SERVQUAL
- Customer Satisfaction Analysis
- Transaction Analysis
- Conjoint Measurement
- Evaluation of Customer Complaint
- Feedback of Losing Customer

- FMEA (Failure Modes and Effects Analysis) for Service
- Frequency Relevance Analysis

Major Task Description

In this step, the innovator must:

- 1) Collect customer feedback to examine service quality;
- 2) Evaluate the actual service delivery process and name problems that were not identified in the test stage (Step 7);
- 3) Improve the service and the delivery process if necessary.

Step 10. Follow-Up Marketing Research**Key Question(s)**

- 10.1 *Did the new service launched in Step 8 cause any significant impact to the overall market environment? How?*
- 10.2 *Did the new service trigger new customer requirements? What are they?*
- 10.3 *Is it time that a new round of innovative service development be initiated?*

Suggested Methods/Tools

- User Group
- Customer Forum
- Customer Clubs
- Employee Exchange

Major Task Description

In this step, the innovator must:

- 1) Compare the market environments with and without the new service;
- 2) Analyze the current competitive environment;
- 3) Initiate a new round of service innovation if appropriate.

Case Study

YOSI, world's largest Internet content provider, announced discontinuation of its unpopular SNS Y-Circle, which is the third SNS YOSI had decided to abandon. Such action has triggered users' doubt on YOSI's competitive advantage and sustainability in the SNS market. Meanwhile, YOSI's new CEO Winona Ferguson has been pressuring the vice president Pete Lindt to launch a killer app that can defeat Facebook. To fulfill this mission, YOSI is commissioning a consulting-research team to employ IDEA Diamond in development of a killer application that can deliver exceptional user experience in the OpenSocial environment.

IDEA Diamond Implementation

In Step 1, a *trend analysis* was conducted through reviews of latest news, user behavior and available literature. A *strategy chart* was drawn to define

YOSI's short-term goal (design a competitive OpenSocial network service) and intermediate goal (dominate the web trend via innovative applications). The chart also examined resources availability (inc. human resources, material/operational resources, and the immaterial resources) based on which the project scale is determined.

In Step 2, *expert interviews* and *secondary research* were conducted to discover the unfulfilled market demand, including customers' implicit preferences, unsatisfied needs and problems encountered during service contacts.

A unanimous observation among all interviewees is that Taiwan's SNS market has not yet seen any overwhelming success like Facebook's. YOSI, padded by its superior technology and business size, still has a chance to impress Taiwan SNS users. However, YOSI should focus on a particular market segment (like Facebook's initial focus on Harvard students) and investigate the motive/interest that pulls users to form a community. Data indicated that students aged 17~21 account for the highest Internet usage and demonstrate a strong need for online social-networking [27]; therefore the consulting-research team advised YOSI to target college students as the new OpenSocial app's primary users.

In Step 3, YOSI accepted the consulting-research team's proposal on target user selection. A *lead user analysis*, i.e., a *persona analysis*, was conducted to investigate the target group's Internet use behavior.

In Step 4, ideas were cultivated through a *brainstorming* session and five *focus group* meetings that involved both the internal personnel (YOSI's staff and the consulting-research team) and potential customers (sample college students). Over eighty percent of the invitees voiced that extracurricular activities/events constitute a major part of college life. A SNS with event-holding functionality that helps organize the events more efficiently would be highly appreciated. Functions should include event promotion, registration, photo/audio-visual clips posting, individual profile and chat room. Open APIs will also be attached to the service so third party developers can post new features to further enhance user experience.

In Step 5, all members within this service innovation project were invited to a *Service QFD* (quality function deployment, Figure 6) session, the purpose of which was to deploy the interrelationship between YOSI's technologies and surveyed customer requirements, thus finding the most effective and competitive resource optimization strategy to devise the activity/event management site for college students.

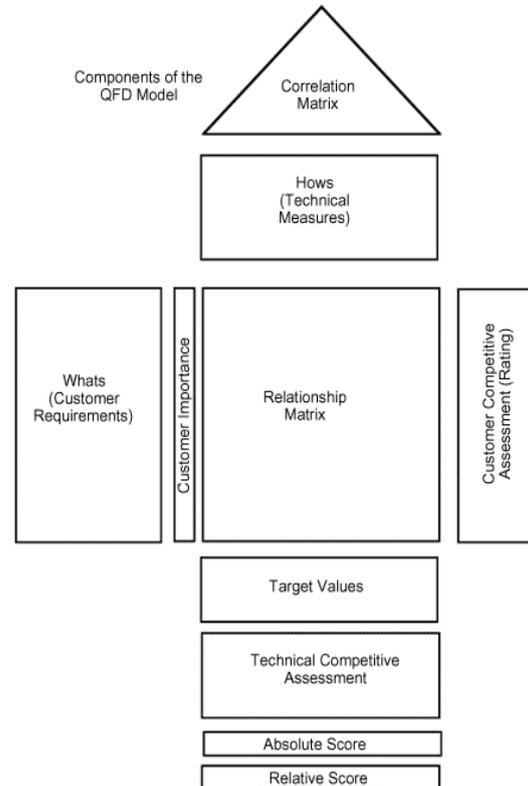


Figure 6. Quality Function Deployment

**Turning Point: YOSI project team's feedback

Approaching the end of the QFD meeting, YOSI's project team reflected that the activity/event management only targeted a limited number of users (college students), but YOSI preferred in a SNS that could serve the general public. Hence, a significant change was made – the activity/event management site was replaced with a service that provides discounts, coupons and group-buy information with 'widgets' for everyday life (e.g. calendar, weather, map, etc.). Moreover, YOSI's project team requested that a stronger 'social' flavor be added to the service to meet the company's initial expectation of creating an 'OpenSocial killer application'. Such adjustment entailed a refrain of certain process steps (Step 2 – 5).

Repeated Step 2

The repeated round of market research was conducted through *literature and statistics review*. Data indicates that the online 'group buy', leveraging the big volume of buyers to obtain a further discounted price, has enjoyed a dramatic growth, and college students in Taiwan are also highly enthusiastic in joining group-buy activities on PTT, Taiwan's largest BBS. However, the functionality of PTT Group-Buy remains incomplete, causing participants to suffer the

redundant communication process with their peers. YOSI's project team and the consulting-research team agreed to create a service that incorporates the spirit of PTT Group-Buy with more advanced and user-friendly features.

Repeated Step 2

The target group remains unchanged: Taiwan college students aged 17~21.

Repeated Step 4

The consulting-research team called for another *brainstorming* session to generate ideas for the new group-buy service, focusing on ways to strengthen the group-buy application's 'social' meaning and its 'pulling' effect.

Repeated Step 5

Based on the Japanese quality control scholar Noriaki Kano's *Kano Model* (1984) that divides product qualities into four categories – indifference, attractive, one-dimensional and must-be, the consulting-research team divided ideas collected in Repeated Step 4 into two major groups: the *must-be* qualities and the *attractive* qualities.

Must-be Qualities

(Primary functions to serve the group-buy purpose)

- Basic group-buy information
- Product description and price
- Important numbers, (e.g. minimum number of buyers required, participants accumulated, etc.)
- Delivery methods (e.g. mailing, face-to-face trading, etc.) and details
- Opinion exchange
- Log-in
- Calendar
- Search engine and keyword tags
- Interaction with other participating buyers
- Forum
- Instant messenger

Attractive Qualities

(Social-networking features that encourage users to stick to the site, interact with other peers and eventually pull more users in)

- Profile
- Friends list
- Real-time status update
- Virtual money
- Games

Due to time constraint and resource limitation, YOSI's innovation of the group-buy application only progressed to Step 6 – Service Design and Testing.

Before realizing the group-buy service drafted in Repeated Step 5, the consulting-research team utilized *Scenario Technology* to simulate a user experience journey and identify the critical service contact points that might affect users' perception of the service quality. Solutions to potential problems were sought and gaps were filled in this step to fortify the service architecture. The application was then *prototyped* based on a revised blueprint, and a series of *service tests* took place within the entire project team to assess the application's eligibility for full-scale launch.

Conclusions

The world has been witnessing a shift from agricultural, industrial, service to experience economy, and it is now the novel experience during service encounter that distinguishes one product from other competitive offerings [22]. Researchers on new product development (NPD), new service development (NSD) and service engineering all believe that a systematic service development methodology that takes user needs into consideration can boost innovation efficiency, create user-centric service and thus deliver better user experience. In this research paper, a new service development model, IDEA Diamond, was devised and implemented to assist a reputable SNS provider in exploring unfulfilled market demand, identifying the most potential market segment and developing a new service catering to the target customers' needs. Systematic, methodical-technological tools were utilized during IDEA Diamond implementation. The model is not limited to the SNS field but also applicable to the entire service industry. Employment of the IDEA Diamond would, overall, add 'a unique mix of value' [28] to the service companies on both strategic and operational level.

IDEA Diamond requires a consistent project theme, a comprehensive business strategy and precise goals, the combination of which would prevent the innovation personnel from going astray. For companies whose innovation used to be *ad hoc*, the IDEA Diamond offers clearly defined guidelines and situation-specific methods/tools to schematize the service innovation process. At the end of each process step, a review meeting is held to assure that the result of each activity meets the expectation of various stakeholders. The meeting not only examines what has been done in recent process steps, but also previews what will be done subsequently and evaluates resource allocation efficiency.

Before committing resources to idea realization, the innovation personnel is encouraged to quickly prototype the selected idea through various methods such as drawing pictures, handcrafting a trial product, plotting a service experience journey with user scenarios and forecasting the critical incidents during service contacts (Kelley, 2001). This action helps reconfirm the project direction and stimulate organizational learning that will benefit future development of new services. Since innovation is an ongoing process, a concept proven unsuccessful still helps accumulate experiences of concept prototyping and testing, which should be considered valuable asset in the company's innovation knowledge base.

On the other hand, flexibility is allowed in the progression of IDEA Diamond's 10 process steps. Despite the IDEA Diamond's predefined order, some process steps may have to recur should the project direction be modified (as happened in the YOSI case). Implementation of the IDEA Diamond therefore becomes an iterate rather than a strictly linear procedure.

However, when IDEA Diamond helps reduce resource misuse and increase innovation success rate, it does not 'guarantee' success of the new service product for various reasons. Observed variables that impinge on the result of IDEA Diamond implementation are discussed as follows.

First, resource availability – including time, money and knowledge – determines the scope of the innovation project and thus the number of activities that are allowed to be executed. In-depth execution of service development methods/tools could be time-consuming. To accelerate the innovation process, an additional investment on human resource is required – either to hire first-tier field experts or to increase the number of participants. When budget constraint forces involvement of less costly or even voluntary manpower, knowledge and skill limitation of the personnel will likely lead to inadequate or inappropriate selection of methods/tools. Should there be a discrepancy between the amount of resource committed and the resource provider's expectancy level on the project result, conflicts do occur.

Second, it is always a challenge for stakeholders to reach a consensus during the decision-making process. Take the YOSI case as an example. While the consulting-research team tried to create the service based on researched customer needs, YOSI denied the consulting-research team's market-oriented proposal of building an event management site and decided to adjust the project direction to fit YOSI's long existing organizational culture. Being the resource provider, YOSI

apparently enjoyed higher judgment power than the consulting-research team and thus pressured the latter to comply. Given that YOSI had already failed several SNSs, discarding the consulting-research team's market-research-based advice could render another loss of a promising opportunity. The company's rejection may be analyzed in two folds. On one hand, YOSI still indulged itself in the old glory and refused to jump out of its current operational pattern. On the other, YOSI did not assign the right personnel – those with an entrepreneurial mindset – to this service innovation project. Analogizing the IDEA Diamond as a tool that carves a gemstone (i.e. a creative idea) into a precious treasure, the quality of the end product does not depend merely on the sharpness of the tool but also on the craftsmanship. In other words, the personnel's capability of making the right decision directly affects the performance of the IDEA Diamond.

Third, although the IDEA Diamond aims to help the service sector in general, industry-specific requirements remain and whether the IDEA Diamond meets those requirements is still in question. OpenSocial, for instance, is an ultramodern subject field with several characteristics that are unique to conventional service industries. SNS providers in the OpenSocial environment encounter competition from every corner in the world since anyone with programming knowledge can produce a rival application. OpenSocial also requires speedy updates of service features before they are outdated, forcing SNS providers to constantly invite new engineering ideas in quantity without controlling quality. Rapid production of new applications, however, is simply not enough. Besides efficiency, SNS providers are also competing on the durability of a killer app. Hence, SNS providers must consistently monitor the market and cleverly use tactics to keep users excited. Even if SNS providers in OpenSocial context can largely leverage 'user generated content (UGC)', they are, from the management perspective, still responsible for initiating one or more key applications to retain users in the service and trigger open innovation. To judge which application or API is worth investing, SNS providers need a deep understanding of what users want now and what users might want in the future. To solve the atypical challenges SNS providers are currently facing, adaptation of the IDEA Diamond to the OpenSocial context is still required.

Last but not least, the IDEA Diamond is a new model that has not yet been widely implemented in enterprises, and its 'best practice' is still under research. More empirical data must be collected to provide a quantitative review on the

IDEA Diamond's effectiveness. However full-fledged in its functionality, the IDEA Diamond does not promise profitability of the new service developed. Service providers still need strategic vision and a lucrative operational model to stimulate business growth. Only through a brilliant mix of the innovator's commitment to the project, the amount of resource invested, the appropriateness of team building and the team leader's project management expertise can the value of IDEA Diamond be optimized. For the IDEA Diamond's future improvement and transformation, a potent measurement model that evaluates the IDEA Diamond's comprehensiveness, compatibility, consistency and continuity must also be established.

References

- [1] Boyd, D. M. and Ellison, N. B., Social Network Sites, *Journal of Computer-Mediated Communication*, 13, 2008, pp.210-230.
- [2] Cooper, R.G., Easingwoold, C.J., Edgett, S., Kleinschmidt, E.J., and Storey, C.,. What distinguishes the top performing new products in financial services, *Journal of Product Innovation Management*, 11, 1994, pp.281-299.
- [3] Grönroos, C., *Service Management and Marketing. Managing the Moments of Truth in Service Competition*, Lexington, MA, Free Press/Lexington Books, 1990.
- [4] Reicheld, F.F., Sasser, W.E. Jr., Zero Defections Comes to Services, *Harvard Business Review*, 68, 1990, pp.105-111.
- [5] Van Riel A. C. R., Lemmink, J. and Ouwersloot, H., High-Technology Service Innovation Success: A Decision-Making Perspective, *Journal of Product Innovation Management*, 21(5), 2004, pp.348-359.
- [6] Chesbrough, H. and Spohrer, J., A Research Manifesto for Services Science, *Communications of the ACM*, 47(7), 2006, pp.35-40.
- [7] Pessemier, E. A., *Product Management*, New York: John Wiley and Sons, Inc., 1977.
- [8] Scheuing, E. E., *New Product Management*, Hinsdale, Ill.: The Dryden Press, Inc., 1974.
- [9] Urban, G. L. and Hauser, J. R., *Design and Marketing of New Products*, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1980.
- [10] Booz, Allen and Hamilton, *New Products Management for the 1980s*, New York: Booz, Allen and Hamilton, Inc., 1982.
- [11] Donnelly, J. H., Berry, L. L. Jr. and Thompson, T. W., *Marketing Financial Services*, Homewood, Ill.: Dow Jones-Irwin, 1985.
- [12] Johnson, E. M., Scheuing, E. E. & Gaida, K. A., *Profitable Services Marketing*. Homewood, IL: Dow-Jones Irwin, 1986.
- [13] Bowers, M., *New Product Development in Service Industries*, Ph.D. Dissertation, Texas A and M University, College Station, 1986.
- [14] Crawford, C. M., *New Products Management*, Homewood, Ill.: Richard D. Irwin, Inc., 1987.
- [15] Schueing, E. E. and E. M. Johnson, A Proposed Model of New Service Development, *The Journal of Services Marketing*, 3(2), 1989, pp.25-34.
- [16] Easingwood, C. J., New Product Development for Service Companies, *Journal of Product Innovation Management*, 3(4), 1986, pp.264-275.
- [17] Edgett, S., Developing New Financial Services within UK Building Societies, *International Journal of Bank Marketing*, 11(3), 1993, pp.35-43.
- [18] Martin, C. R. and Horne, D. A., Services Innovation: Successful versus Unsuccessful Firms, *International Journal of Service Industry Management*, Vol. 4, 1993, pp.48-64.
- [19] Bullinger, H.-J., Fähnrich, K.-P. and Meiren, T., *Service Engineering – Methodical Development of New Service Products*, International Journal of Production Economics, 85(3), 2003, pp.275-287.
- [20] "Fraunhofer IAO" official website. <http://www.iao.fraunhofer.de/lang-en.html>
- [21] "IDEO" official website. <http://www.ideo.com/>
- [22] Pine, J. B., II, and Gilmore, J. H., Welcome to the experience economy, *Harvard Business Review*, 1998, pp. 97-105.
- [23] Sundbo, J. and F. Gallouj, *Innovation in Services – SIS4 Project Synthesis*, Norway: STEP Group, 1998.
- [24] Tamura, S., Sheehan, J., Martinez, C. and Kergroach, S., *Promoting Innovation in Services. Organization for Economic Co-operation and Development*, OECD, Paris, France, 2005. Available at: <http://www.oecd.org/dataoecd/21/55/35509923.pdf>
- [25] Magnusson, P. R., Matthing, J. and Kristensson, P., Managing User Involvement in Service Innovation, *Journal of Service Research*, 6(2), 2003, pp.111-124.
- [26] Goldratt, E. M. and J. Cox., *The Goal: A Process of Ongoing Improvement*. New York: North River Press, 1986.

[27] InsightXpore, ARO Internet Survey, Duration: January ~ December, 2008.

[28] Porter, M. E., What is strategy, *Harvard Business Review*, 74(6), 1996, pp. 61-78