Moderating Role of Web Digital in Customer Solution

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Abstract—This paper presented analogous Web-based hybrid knowledge system, called Web Digital, is actively emerging and playing an important role in nowadays e-marketing strategy, especially in customer solution area. According to previous research that divided the customer solution to four main part: require define, customize and integration, deployment and post deployment support, which is a necessary four factors to sustaining a long term business relationship between buyer and seller. However, it faces several difficulties to realize a good customer solution in practice. Web Digital’s easy to communicate with other unit, real time and such outstanding characteristics made each facet of customer solution operate in an effective and efficient way respectively, which means it plays a moderating role between customer solution and long term relationship between buyer and seller. In the end, this paper derived a set of propositions and examples from business marketers are discussed, managerial implications are highlighted. The most contribution of this paper is a theory construction from grounded field observations.

Keywords— Customer solution, Long term relationship, Moderating role, Web Digital,

I. INTRODUCTION

PARADIGMATIC transformation, especially the rise of the internet, requires changes in the way companies organized to find new and dynamic solution to satisfy more and more diversified and varied customer needs, so as to get new and retain customers in the market. Provide right customer solution to corresponding customer is the key factor to get and successive than rivals. This is reason why many companies starting to adopt web-based marketing strategies. ” Digital marketing leverages the unique and powerful characteristics of interactive media: it is addressable, meaning that each user can be identified and targeted separately; it allows for two-way interaction; services can be tailored for each individual customer; and purchases can be made and influenced on line” [1]. Kierzkowski et al. [1] also advise that companies must combine interactive media with their existing businesses and marketing programs in order to gain the benefits of digital marketing. In addition, given that increased number of digital media and the changes they bring in reaching customers, marketers need to ensure that they plan effectively to exploit their potential.

However, formulating a viable digital marketing strategy is challenging because it have to considering contains of four part of the customer solution, from accurately understand of customer requirement, customized product to integrate, post it to customer’s environment, and keep continuous satisfy customer needs could not solved by simple Web technology. Thus, to tackle these problems effectively, it should equip with a hybrid or integrated approach that integrates the strengths or powers of various decision-support techniques and artificial intelligences. Therefore, this article research on the Web-based hybrid knowledge automation system’s important moderate role promote providers customer solution to accurately understand customers’ requirement and find the right solution to enhance their customers’ satisfaction, in which business marketers are searching own competence (differentiation) in the Internet and digital age, through it to get a better long term relationship between buyer and seller.

II. LITERATURE REVIEW

A. Web-based Hybrid Intelligent Knowledge Automation System. (Web Digital)

Before examining the specific rationale for the Web-based system developed a role in moderate the customer solution and business collaboration relationship in this context, recognize the concept of such systems and their increasing sophistication in current era is necessary. Li and Li [2] describe an analogous hybrid intelligent system or approach “as a computerized or Web-based/Internet-enabled system that consists of different interrelated and interacting functional components and integrates the strengths or advantages of diverse techniques or technologies including one or more intelligent technique or technology”. These multifaceted systems enable increasingly complex problems to be considered. The system architecture is shown in Fig. 1.

In order to produce efficient and effective support for digital marketing strategy formulation, Web-enabled hybrid knowledge automation decision support should: Enable decision makers to access digital marketing planning expertise, guidelines and analytical models at any time zone and in any geographical places over the Internet across the world. Automate intelligent reasoning and on-line advisory process through a Web-based intelligent system. Integrate the
advantages or benefits of various decision-support techniques and artificial intelligence technologies.

Web Digital was designed and constructed by S. Li and J.Z. Li [3] to address these requirements. It uses the following open source software tools: JavaScript Object Notation (JSON), HyperText Markup Language (HTML), Hypertext Preprocessor (PHP), and MySQL relational database management system used on the Web. The Web Digital system is built on the basis of the client–server architecture, with server-side software implementation and development. The main objectives of the Web Digital system are to: Simulate and assess relevant factors or variables determining digital marketing strategy formulation. Calculate, reason and advise digital marketing strategies.

According these rationale mentioned above, there are numbers of new analogous function Web Digital system are emerging continuously, thus, the first objective of this context is to summarize Web Digital system applied typical cases to each facet of customer solution in nowadays successful companies marketing strategy.

B. Customer Solution

Faced with intense competition, firms in diverse industries are attempting to differentiate themselves by offering customer solutions [4], [5]. If customers viewed solutions differently, it would require that suppliers rethink what they sell to, develop for, and provide their customers. Indeed, Day [6] concludes that the complexities of developing solutions are difficult to master and even more difficult to copy which could bring core competence. Kapil R [7] modified the extant view concept of a customer solution which defined a solution involves both goods and services. The solution is designed to meet customer’s needs (customization). A solution consists of an integrated set of goods and services. Proposed view customer expect a solution to include processes understanding their requirements, customizing and integrating products, deploying them, and supporting them on an ongoing basis:

- Requirements definition.
- Integration (Customizing with one another unit).
- Deployment (Delivery and installation products into a customer’s environment. Providing appropriate information.)
- Post deployment support (Response to evolving requirements).

As described above, the customer solution is a critical factor to acquire competence and differentiation, there are also many difficulties to reach them unless apply Web Digital system in each stages. Therefore, the second objective of this research is to develop insights of Web Digital system that affect and moderate a supplier’s ability to provide effective solutions to organizational customers.

III. FRAMEWORK

A good long-term relationship between buyers and sellers is strongly decided by the whether the suppliers’ solution satisfy and exceed buyers requirement well. The customer solution consists of customization and requirement definition, integration, deployment and post deployment four part. Web Digital systematically moderate the whole customer solution in each separate part of customer solution process for supplier to better satisfy buyers because Web Digital collect and management information for solution design in easy, accurate and also real time way.

![Footer](https://example.com/footer.png)
customer oriented marketing theory and solution theory it is
critical for suppliers to recognized customer needs, furthermore
researches has indicate that the important role of both suppliers
and customers in the discovery process with understanding a
customer’s broader business needs, for example maintain
maintenance expenses instead of just take care of specifications
of products. Considering these problems, 3M allows the
customer to use its Web site to create the exact personalized
Post-it note desired. This site also illustrates how easy it is for
customers to customize the product to their requirements and
place an order online to create the product.

Different from resent study web communication is only for
suppliers to provide online information, database publishing
(search engine), customer self-service, transactions model. It
also provides customize RD to supplier, which is the first and
base of afterward step of customer solutions. At this stage, the
proposition is:

P1: The Web Digital system focused on web site make RD
involves delineating a customer’s current and future needs for
customer.

B. Customization and Integration.
The customization involves designing, modifying, or
selecting products to fit into a customer’s environment, which
means if supplier are not willing to change things around
customer then it will create a new problem and is not a solution.
And integration consists of designing, modifying, or selecting
and services that work well with one another, which
mean the supplier’s solution developed, like technology parts,
should “tuned” to their customer. Web Digital could easily and
real timely assist suppliers’ customization and integration with
buyers. Discount Giant Wal-Mart with its supplier P&G and
GE Light is a typical case of Web Digital’s role of promoting
customize and integration, Wal-Mart developed an IT strategy
that emphasizes operation efficiency between itself and its
suppliers. This gives Wal-Mart an enormous competitive
advantage over its rivals. In response to this requirement , P&G
and GE Light decided to coordinate their IT strategies with
Wal-Mart so that these vendors receive daily sales information
about their products in each store and, in response, can
continuously replenish Wal-Mart’s shelves with their products
on an” as-needed” basis. In turn, P&G and GE Lighting supply
Wal-Mart with electronic shipping and billing information.
Both parties benefit from this arrangement: Inventory costs
are lowered for P&G and GE Lighting. Wal-Mart needs fewer
staff to handle invoices and shipping. Wal-Mart is assured its
supply of product is always on the shelf for customer.
Wal-Mart’s customers can reap the saving passed on thanks to
the operational efficiencies.

Consist with previous research that positive impact on
efficiency in the channels of distribution theory. Used Web
Digital could benefit from low-cost communications
technology and disintermediation could realize automate all
kinds of business transactions and get real-time central services
for all network channel partners. In this phase, the proposition
is:

P2: Web Digital system improves customization from
designing, modifying, or selecting products to fit into a
customer’s environment to another unite in a more efficient and
integrate way.

C. Deployment.
Deployment refers to the delivery of products and their
installation into a customer’s environment, the installation
process frequently surfaces new customer requirements that
call for additional modification of products, understanding and
management customer personnel’s capabilities and providing
them with appropriate information. Baxter Trevino created a
new version of ASAP that became the forerunner of
Web-based e-marker places for medical supplies. Baxter’s IT
strategy has deliberately focused on the value of the
information related to each interaction with the customer, to the
point where Baxter provides services to hospitals to manage
their own inventory (“vendor-managed inventory”). Because
Baxter understands the needs of the customer better than the
customers themselves! Through service excellence, Baxter has
also raised the cost to the customer of switching to another
service to an unacceptably high level.

Consist with previously research theory that think creatively
about human knowledge, companies use many techniques for
collecting human data such as customer forums, monitoring
customer service calls, having employees use the company’s
product to know firsthand what customers are talking about
whether products are well stalled in their environment in order
to according individual capability to modify them in a
improved way. This is the reason of come up with proposition:

P3: Web Digital system fosters the delivering of products
and their installation into a customer’s environment.

P4: Web Digital system promotes understanding customer
personnel’s capabilities and providing appropriate information.

D. Post deployment Support.
Post deployment support in the case of solution is more than
providing spare parts, operating information, and routine
maintenance. It also includes deploying new products in
response to evolving requirements of a customer and real-time
updates. Post deployment support is better viewed as an
ongoing relationship between a supplier and a customer. The
key factor of disseminate new product and provide real-time
updates are inseparably close to Web Digital system’s
completeness in marketing strategy.

As the internet was taking shape, UPS made a financial
commitment to transform its operations to meet the changing
needs of the digital economy by establishing electronic
connectivity with its extensive base of customers. The company
has a variety of business solutions that give customers
productive ways to manage, grow, and even transform their
business to stay on course in a fast-changing, competitive market. Every day, UPS links 1.8 million sellers to 7 million buyers all over the world and delivers $1.5 billion worth of packages, including more than 55 percent of all the goods ordered online. The company has formed alliances with the leading e-commerce providers and helps customers build or improve their Web sites so they, in turn, can better serve their customers. UPS e-logistics, a subsidiary of UPS, provides integrated, end-to-end supply-chain management services to e-commerce businesses and dot.com division of established companies.

Consist with Look at the broader context research that many companies created new roles or functions to help manage customer knowledge in order to provide new product and updates information, therefore, at this stage the proposition is:

P5: The Web Digital system improve deploying new products in response to evolving requirements of a customer, more than providing spare parts, operating information, and routine maintenance.

The relationships a company maintains with its key constituencies can be as much of a competitive differentiation as its core products or services. However, the manner in which a company shares information and system is a critical element in the strength of its relationships. WebDigital-base improved customer solution is a complete effect way to strengthen relationship as natural outcome! So add up proposition:

P6: Being “connected” is no longer adequate. Business relationships and the communications that support them must exist in a “networked” fabric.

IV. CONCLUSION

Web Digital system could better understand customer RD and delineating a customer’s current and future needs for customer. Web Digital system provides supplier a more efficient way customizing with one another seller unit realized easy, reliable, real time distribution through designing, modifying, or selecting products to fit into a customer’s environment. It also could promote delivering of products and their installation into a customer’s environment, understanding customer personnel’s capabilities and providing appropriate information to improve differentiation. Web Digital system helps to track customer’s evolving needs. Relationship strength is a natural outcome of if above process in a good organization way. In current market strategy, being “connected” is no longer adequate, business relationships and the communications that support them must exist in a “networked” fabric.

What should be pay attention to is that the Web Digital system still seems not applied in a complete system to customer solution architecture in most practical implements, so it is advocated here that marketers should be aware of the importance role of Web Digital system in whole marketing strategies’ formulation and its architecture both in technology and governance should not be neglected.

V. LIMITATION

The limited number of firms constrains the generalizability of interpretation in a statistic examine. Further research is to identify how and when performance of Web Digital system is more critical to the development of a customer solution.

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