Supplier Relationship Management of Coal Trading Center on 
Perspective of Supply Chain Platform

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Abstract. Coal trading center is the coal supply chain platform that aggregate coal producer and coal dealer as seller, logistics and fund firms as service providers, and coal users as final clients. This paper use supply chain platform theory to analysis supplier relationship management of coal trading center, it believes coal trading center is the core firm of supply chain platform and various service providers is suppliers of the supply chain platform, supplier relationship management should use CRM system and have a close-loose classification of suppliers according to the service providing capabilities on the coal trading center platform.

Introduction

Coal trading center is a coal trading market platform that assembles the coal buyers and sellers who will bid according to predefined rules and regulations by an E-exchange trade system and finally successful trades with a dynamic mutual agreed price. The coal trading center has a number of special features due to coal is commodity and have a huge dependent on the logistics. The complexity of coal logistics renders its supply chain far complex from conventional concepts of industry production supply chain. Coal trading center aggregates coal supply chain related information including coal requirement, contract flow information, coal property, transition information, logistics transfer information and funds flow information though its centralized platform system which make it working as coal supplier chain management platform, all the service providers can be seen as the suppliers of the platform, so how to manage supplier relationship is the key to the success of coal trading center, the relationship can be managed in different ways, coal trading center is an electronic trading system, which mean an information system to manage the supplier relationship is a must, but its supplier management is different to all the others system due to suppliers are not working as traditional ways but as supply chain platform.

Supply Chain Platform Theory

Platforms exist in a variety of industries and exit since market emerge, platform research begin with a paper “Creating project plans to focus product development” by Wheelwright and Clark in 1992, which define platforms as products that meet the needs of a core group of customers but are designed for easy modification into derivatives through the addition, substitution or removal of features.\cite{1} Then researchers use technology platform strategies and platform leader to analysis high-tech innovation, in 2008, Gawer in Imperial College London and Cusumano in MIT extends the product platform concept to firms within the context of a supply chain, it is called supply chain platform.\cite{2} Supply chain platforms exit in many forms, it can be built by a single firm and shared among different firms in one or more industry, or with its suppliers and supplier’s suppliers or built by some amount of cross-ownership between the firms.

Supply chain platform has more benefits to all the firms along the supply chain including increasing productive efficiency, flexibility and stability along the supply chain, reduce one firm’s production and operation costs, achieving economic of scale, enhance supply chain speed and reduce supply chain cost.\cite{3} A supply chain platform normally has a core firm; who has one of the
following capabilities including distinguished design capability, integration or aggregation capability, driving and impact capability.

**Coal Trading Center as A Supplier Chain Platform**

Coal trade suppliers work on one platform, it is a supplier chain platform. Coal trading center supplier chain platform can be established by one firm or several or with government, which the core coal exchange business development by itself, and exchange related logistic services, fund service, quality assurance service and other possible services could provide by coal trading center or third-party service provider, all the firms along the supplier chain can trade and provide service on the platform. Compare to traditional coal trading supplier chain, coal trading center supplier chain platform works as an intermediary and integrate more industries including coal industry, financial industry, and transportation industry on one platform, the information and resources of different related industries’ suppliers share on the platform which improve the efficiency of the whole supplier chain, improve the potential of reducing cost, and chances to provide various services, even reach a scale of economics. The suppliers, trading users of coal trading center co-build the platform through above sharing and reach mutually beneficial.

Coal trading center is a third-party supply chain platform, providing the coal trading services, compare to the conditional coal supply chain, the benefits of supply chain platform of coal trading are suppliers on the platform which is good for cooperation and innovation, but how to maintain, incentive and manage the members of a supply chain meets a series of challenges.

**Coal Trading Center’s Supplier Relationship Management**

Supplier relationship is usually managed by information system which is high efficient and accurate in data and information classification and maintenance, different type of data are collected and stored by different sub-systems. To create an information system for the entire organization and its various functions and departments that provides seamless integration of information from different sources and functions. There are four types of enterprise applications: enterprise resource planning (ERP) systems, supply chain management (SCM) systems, customer relationship management (CRM) systems, and knowledge management systems (KMS) [4]. Each has its own characteristic, from the perspective of platform, trading clients and service suppliers are both users of the platform, so most of suppliers select CRM to manage supplier relationship. CRM is designed to form a strong relationship with its customers, and it provides an integrated approach to a company’s dealings with its customers in all aspects of its business such as sales, marketing, and support. Suppliers on the coal trading platform are indeed working as partners of the platform and serve the coal trading buyers and sellers together with platform, so we can use CRM system to optimize supplier levels, improve supplier service capability and suppliers ‘satisfaction and loyalty.

The cooperation relationship among supplier could be tight coupling or loose coupling; they can be strategic partner who share the profit or one-time trading relationship partner who only use platform to create his own profit, but no matter supplier type and the relationship with platform, one common objective of supplier is co-build supply chain platform which means the platform and its suppliers are interdependent, so we need to be mindful of possibly divergent objectives and incentives among different supplier within the coal trading center. In order to build the mutually beneficial supplier relationships to co-serve the clients of the platform and also balance the governance and autonomy capability, the close-loose cooperation based relationship management probably could enhance the ability of both platform and supplier’s value.

We can classify the supplier relationship by close relationship to loose relationship, and divided into several levels, the level near the core means a close relationship with coal trading center and the level outsider means a loose relationship with coal trading center, see Fig.1, the one near the core can be a strategic partner of the platform.
A good classification will have distinguished attentions, supporting and strategy to different suppliers; it aims to bring some supplier up stronger who could be a good force to involve in the governance of the coal trading center. Each level of classification have specific requirements which linked to coal center platform’s service value proposition, service rules, rights, incentive mechanism and contribution of coal trading center governance, see Table 1.

Table 1. Supplier relationship Level classifications.

<table>
<thead>
<tr>
<th>Level</th>
<th>Requirements to service provider</th>
<th>Benefit and rights of service provider</th>
<th>Value to coal trading center</th>
</tr>
</thead>
<tbody>
<tr>
<td>L4</td>
<td>· upgrade from L2, L3 to L4 · reach to a certain of service scale in specific segmentation · more standard service · strategic cooperation capability certification · high credit level · high platform propaganda contribution · high service innovation contribution · more service representative certifications · high membership fee · ......</td>
<td>· brand co-building and share · share clients information · share strategic information · share profit · co-create innovation service · assist in build, promote and improve supplier brand · platform collective governance committee · ......</td>
<td>· improve platform value and competitiveness · assist in platform governance · membership fee and profit sharing · increase in supplier quantity and quality · supplier collective action increase</td>
</tr>
<tr>
<td>L3</td>
<td>· entry threshold · upgrade from L2 to L3 · supplier standard</td>
<td>· brand co-building · share clients information in specific service domain</td>
<td>· membership fee and profit sharing · increase in supplier</td>
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Suppliers can choose to enter the level L1 or L2 according to their own needs and conditions, while L3 and L4 have a certain threshold, the threshold can be set according to the needs of service providers, the achievements in a certain period of time serve in the platform, and the willingness of participating in platform governance and management, service providers should initiate to apply for a higher level, after can be adjusted to a higher level.

Suppliers’ contribution to coal trading center platform can be measured from the following aspects: service scale in the specific service of the platform, supplier credit rating level, the contribution of helping platform promoting and service innovation performance. L4 is coal trading center platform’s strategic partners who have strong sense of sharing the same fate with platform. Coal trading center platform provider need to take the initiative to identify this kind of suppliers and to support its growth. The suppliers who can not only greatly improve the value of the solution, but also enhance the market competitiveness of the platform may establish a strategic partner relationship with platform. Strategic suppliers share the economic outlook and a large number of strategic information, and mutually trust, share the profits, undertake risks together, improve each other’s competitiveness and finally achieve a win-win situation.

**Conclusions**

This paper discusses the supplier relationship management of coal trading center, on the supply chain platform perspective the supplier is the service provider of the platform including logistics service providers, financial service providers, quality assurance service providers and other coal trading related service providers, all the providers can be seen as supplier of coal trading center supplier chain platform, so we can manage these suppliers by type and each type of suppliers classify into several levels, each level has different requirements and accordingly has specific rights and benefits and all these contributes to the value of supplier chain platform.
References


