

# The Evaluation of the Alliance Systems Designed by “ Enterprise Currencies” in Japan

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**Abstract.** Mileage points and electronic money are called “Enterprise currencies”. The total market of mileage points issued in Japan in 2006 was 665 billion yen. As represented by the mileage programs offered by the airlines and the point programs of home electronics retailers, etc., they have been launched to provide a means of directly returning a company’s advertising and sales costs to customers. In Japan, they have thrived with alliances centered on the airline, and many alliances have composed of the open point issuers.

We have successfully evaluated some open types of representative “Enterprise currencies” compared to a closed type by systems engineering (SE) approach like Pugh’s Method. And we proposed to design new types of future alliances based on product value chains, services and areas according to the customer behavioral processes or product life cycles. These future ones will have better performance in the evaluation of SE than closed type.

## Introduction

### Enterprise Currencies Offering an Effective Means of Retaining Customers

In the past, a company’s sales promotional activities, for the most part, consisted of advertising on TV and in the newspapers as well as rebates and commissions paid to the distribution network (sales incentives). In other words, companies used their advertising and sales promotion costs to all consumers uniformly, albeit indirectly.

Mileage points, that is, enterprise currencies, are different from these advertising and sales promotion costs. Enterprise currencies are a sales promotion technique that works by rewarding those customers who frequently buy a company’s products or services with a large number of points.

Actually, consumers find these enterprise currencies very appealing. According to a survey conducted by Nomura Research Institute in September 2005, about 40 percent of respondents stated that they considered whether they would earn points when purchasing a product or service. About 20 percent said that, if they earned points, they would still buy a product or service even though it was slightly more expensive than that in another store [Yasuoka, 2006]. We can say, therefore, that enterprise currencies are an effective means of both attracting and retaining customers.

Moreover, by managing the IDs of consumers who subscribe to point programs, we can also use enterprise currencies as a type of marketing tool. Enterprise currencies enable a company to identify products appealing to consumers, make general consumers into loyal customers, and then retain those customers.

Nowadays, given that we take broadband connections for granted, the internet has stepped into the role of a new point of contact between companies and customers. Because the amount of system investment is relatively low when compared to launching an original point card scheme, combining enterprise currencies with the online sales of products and services is also very effective. Accordingly, as broadband services spread, cases adopting enterprise currencies are also increasing.

Currently, we are seeing the introduction of enterprise currencies by the channels that consumers contact in their daily lives, such as supermarkets, department stores and convenience stores. About 80 percent of people in Japan have experience in using point programs [NRI, 2006]. This high rate reflects consumers' willingness to use these programs and the efforts of many companies to take advantage of such willingness by introducing enterprise currencies.

### **Value of Points Issued in Japan Exceeds 665 Billion Yen Annually**

As a result of Japan's companies introducing enterprise currencies, it is estimated that at least 665 billion yen is issued in points in 2006 (Table 1). Among the many companies issuing points, 3 industries each issue points worth more than 100 billion yen per year. The 9 industries are considered in Table 1 [NRI, 2008].

In estimating the issue amount of enterprise currency, consideration was given to the rate at which the point program is applied to sales and revenue passenger miles of each company (point application rate) and the actual number of points that are issued (point redemption rate). The point application rate is used to exclude the value of the purchases made by persons who are not members of the point program.

However, points can be awarded regardless of the value of a purchase, such as when sales campaigns are being run [Humbly, 2008]. In addition, the point redemption rate can vary. As examples, "premium" members earn double points, and certain products earn triple points [Quinn, 2005]. Currently, with far more than 100 companies that have a point program in place, the total amount of enterprise currency issued in Japan per year is highly likely to substantially exceed 665 billion yen. And forecasting the issue amount of enterprise currency to 2012, it is estimated that at least 787 billion yen is issued in points in 2012 (Figure 1) [NRI, 2008].

In this paper, as to enterprise currencies, we introduce not only the market size and alliances by using them but also the evaluation of them on the general criteria from systems engineering approach after the situation explanation.

Table 1. Annual Issue Value of Enterprise Currencies (Major Industries, 2006)

Industry	Total sales	Redemption rate	Annual issue value (Million yen)
Mass home electronics retailers (top 10 companies)	4,149,274	6.5%	201,759
Credit cards (entire industry) Amount used for shopping	32,170,100	0.5%	160,851
Mobile phones (top 3 companies)	8,483,146	1.3%	108,543
Airlines (top 2 companies) Revenue passenger miles (1,000 person miles)	97,240,887	1.5Yen/Mile	72,931
Oil companies (major 3 companies)	11,689,117	1.3%	61,711
General merchandise store (top 5 companies)	8,594,207	0.5%	21,486
Department stores (top 10 companies)	5,760,457	1.0%	28,802
Convenience stores (top 3 companies)	3,364,732	1.0%	5,047
Drugstores (top 5 companies)	861,684	1.0%	4,308
Total			665,438

Notes)

1) For redemption rates, the lowest industry standard values are adopted based on published figures.

2) Companies not offering point programs are not included

Source) Enterprise Currency Marketing, Nomura Research Institute, 2008.

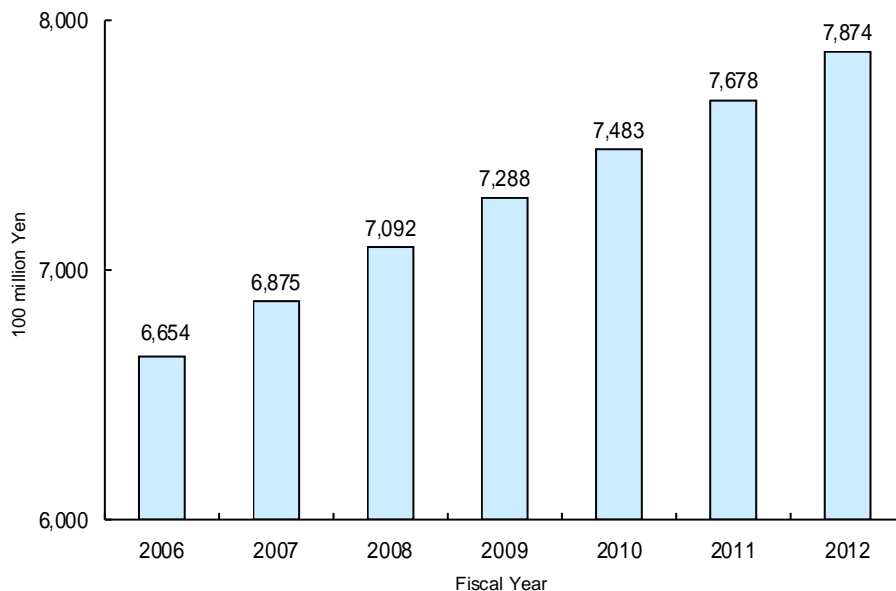


Figure 1. Estimate amount of Mileage Point issued in Japan annually

Source) Enterprise Currency Marketing, Nomura Research Institute, 2008.

## The Spread of Enterprise Currencies in Japan

We found that the rate of consumers who were actively making use of points issued in Japan was around 60 percent. For those companies that regard the issuing of points as part of their cost of sales promotion, any points that are not used constitute a reduction in their costs. However, when we consider the original aim of point schemes, a company should try to maximize the use of its points.

One way of achieving this goal is alliances between companies to honor each other's points, as is common in the United States. In Japan, enterprise currencies would become even more valuable if companies form complex interrelationships in every aspect of their business activities that take into account consumer behavioral processes, rather than just forming simple alliances for exchanging points.

### Alliances Centered on Airlines

Recently, Japan has seen a rapid increase in the number of companies that are willing to accept the enterprise currencies of their partners. This trend has centered on two airlines, namely, JAL and ANA (Figure 2). JAL and ANA almost accept the currencies of their partners one-sidedly. In other words, they almost change other companies' points into airline miles, thus supporting their own mileage programs [NRI, 2006]. This model can work effectively only because airline mileage is one of "key currencies" that have value as a sales promotion tool. ("Key currencies" are used more than any other, and possessing them generates more value than others do. In terms of real money, the US dollar would be one of key currencies.)

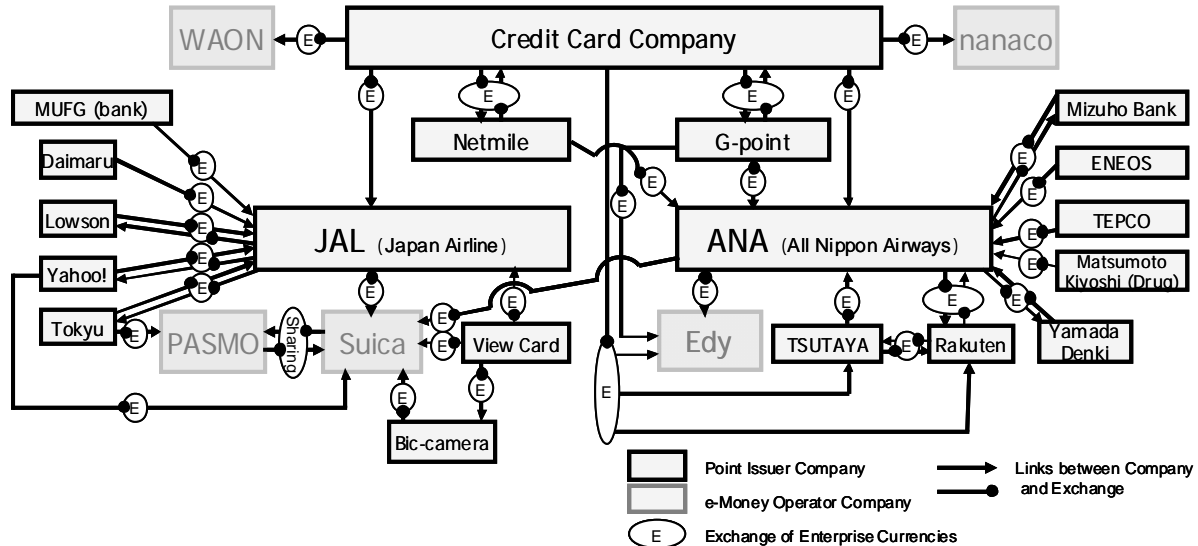


Figure 2. Alliance of "Enterprise Currencies" in Japan (Summary Model)

For example, JAL has alliances with JR East and the Tokyu Group. JAL and JR East jointly offer the "JAL 'View Suica' Card" which provides a well thought-out way of directing one company's customers to the partner, and then retaining those customers. JAL's passengers tend to travel to the airport using one of the JR companies with which the airline has an alliance. Passengers can redeem their mileage points for JR East's "Suica" electronic money. This enhances the

effectiveness of mileage points for retaining JAL customers and increasing their number, even including customers who are not saving points to make trips. JR East enjoys the same benefits.

### **Trend of Alliances Among Multiple Companies**

The above-mentioned questionnaire survey also revealed that, in addition to airline miles, consumers have been collecting points mostly from the purchase of products and services used on a daily basis, such as those offered by supermarkets and mobile phone companies. Furthermore, they want to redeem their points for the same kinds of products and services. Accordingly, when considering an alliance with another company, a company should not only consider the provision of rewards in the form of “dream” products/services such as travel, but also look at how points can be applied in day to day life.

If we look at the above findings by gender and age group, mobile telephone points tend to be collected by young people in their twenties and thirties, while women constitute the greatest number of savers of supermarket points. By profession, we find that an overwhelming majority of airline miles are collected by male businessmen in their thirties to fifties.

One mid-class US airline has an alliance with national hotel and resort chains to mutually exchange mileage points. Through alliances with hotels, the airlines can provide business travellers with accommodations at their destinations. The alliances with resort facilities are aimed at providing services to travellers during their free time. In addition, the sharing of customer databases between airlines and hotels enables them to see customers’ travel habits. They can then target their customers with effective direct mailings.

This pattern can also be found among Japanese companies, where enterprise currency is used to introduce one company’s customers to another company. Moves to attract and retain customers from partner companies by providing benefits (CRM: Customer Relationship Management) have been spreading, not just among airline companies. Companies such as TSUTAYA and Rakuten are also adopting this model.

This model of alliances that transcend the existing framework of a group made up of capital ties is a new method of retaining customers and gathering customers from one company in the alliance to the others. We can think of this process as CRM by multiple companies. It seems that we are moving away from individual point programs and the limits that they impose on CRM, and are instead moving toward an era in which we can draw on the combined strengths of multiple companies.

With the enforcement of the Personal Information Protection Law in Japan, the handling of information has become extremely important to every company. It is no longer possible to simply collect information. Instead, to collect the minimum required amount of information, companies must state why the information is needed and take the consumer’s point of view when promoting services to be offered by multiple companies.

### **The Getting / Using / Exchanging Rate of Enterprise Currencies**

For an enterprise currency to become one of “key currencies,” it is important for companies to provide as many opportunities as possible to increase the amount of currency in circulation and to enable an enterprise currency to be used for a variety of products and services. One way of

achieving this is by increasing the number of alliances similar to those described above. However, simply increasing the number of places where mileage points can be used will only lead to accumulated points being used here and there, and the issuing company will have to bear the cost. Accordingly, when mileage points are exchanged for products or services, it is important that their perceived value be high. Otherwise, when mileage points are changed into other types of points or electronic money, the exchange rate must be adjusted.

Figure 3 is the CVCA (Customer Value Chain Analysis) [Wilson, 1993] which is taken up the representative business examples of Figure 2. As shown Figure 3-①, when we use the airline which costs for example 30,000yen, we get average 500 miles which is worth about 2.5%. And if we don't want to use our mileage points to purchase airline services, but instead want to exchange them for electronic money (Suica/Edy), then the exchange rate would obviously be set somewhat lower. Its case is that 10,000 "JAL/ANA" miles = 10,000 "Suica/Edy" yen in Figure 3-②.

The airline company ANA serves very similar plan of JAL except that, instead of Suica, it has an alliance with the Edy electronic money system. This avenue gives those persons who have collected large numbers of miles, but who are too busy to use them, the opportunity to spend their points. This contributes to eliminating the dissatisfaction that some users have with their "immovable miles." Through careful adjustment of the exchange rates, mileage points can still be used to make a financial contribution to the business.

TSUTAYA rental video store issues T-point which is open type point. Its cases are in Figure 3-③ & 3-④. T-point can be exchanged to airline's mile. And Bic-camera home electronics retailer issues Bic-point which is near closed type pint. Its cases are in Figure 3-⑤ & 3-⑥. Bic-point can be exchanged to only electronic money (e-money) Suica.

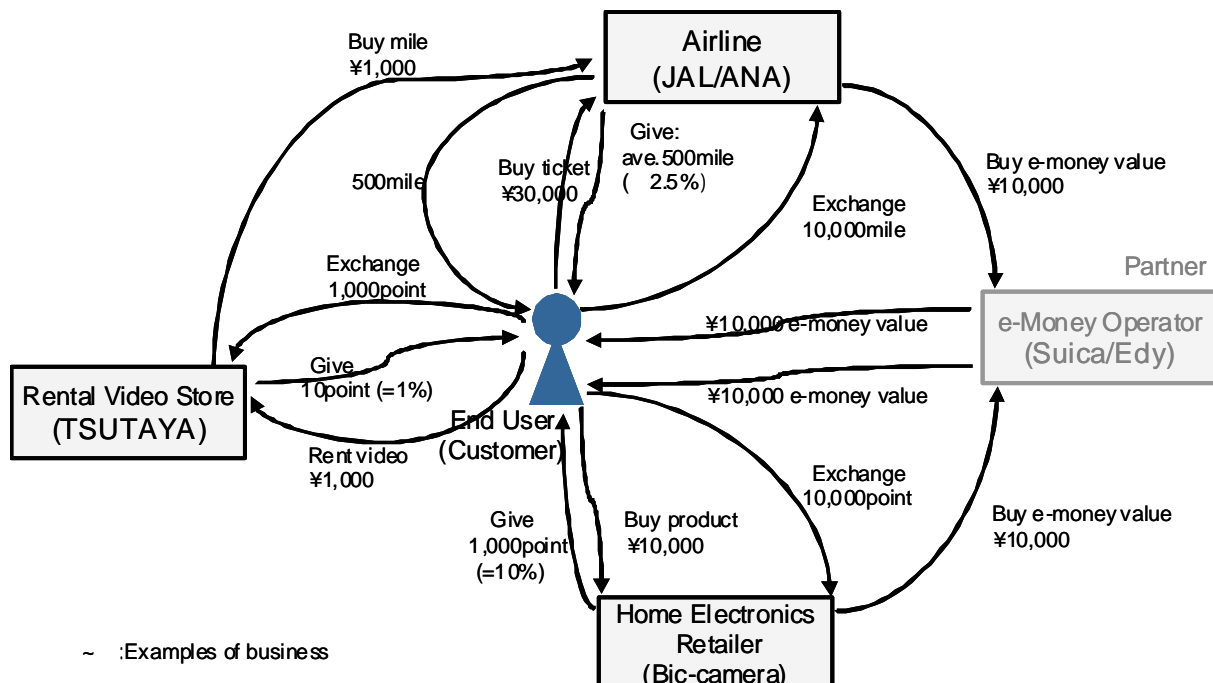


Figure 3. Representative Enterprise Currency's Components CVCA (Customer Value Chain Analysis)

These cases raise the possibility of a need arising for a means of changing the rate on a market value basis so that the rate is advantageous to a given enterprise currency that is strong at the time, in much the same way as with exchange rates.

### **The Evaluation of the Representative Enterprise Currencies**

We evaluate above representative enterprise currencies by Pugh's Method [Creveling, 2002]. This method is the most well known selection matrix. These items of criteria in this method are related and evaluated by stakeholders. As to enterprise currencies, main stakeholders are customers (= end users), issuer company (= point operator), and partners (= buyer / exchanger of points). We take cases in Figure 3, and compare 3 operators with a complete closed point company. In Pugh's Method, we chose the object which is based on DATUM and pair-wise comparison.

We suppose a complete closed point company to be DATUM, and chose 4 customer merits, 3 issuer company merits, and 2 partner merits. Customer merits are as follows:

- "Get points from an Issuer" is that an issuer company gives points to a customer by purchasing issuer's product or service.
- "Get points from Partners" is that a partner company (except issuer) gives points to a customer by purchasing partner's product or service.
- "Use issuer's service" is that a customer uses point to issuer's product or service by discount and so on.
- "Use partner's service" is that a customer uses points to partner's product or service including e-money by exchanging and so on.

Next, issuer company merits are as follows:

- "Low cost" is what an issuer company issues points costs lower than simple discount.
- "Number of Customers" is that an issuer company has resulted to acquire and increase customer relationship by this enterprise currency (point) program.
- "Number of Partners" is that an issuer company has resulted to acquire and increase partners by this program, therefore customers can get, use and exchange points in many places and customer incentive increases.

Last, partner merits are as follows:

- "Point Fascination" is that point program operated by an issuer company serves not only rewards in the form of "dream" products/services such as travel, but also ones in the form applied in day to day life mentioned in the previous section.
- "Point Exchange Rate" is that it is advantageous to a partner compared to general cases.

And DATUM (a complete closed point company) is supposed as follows:

- As to "Get points from an Issuer", about 1% in general case
- As to "Get points from Partners", nothing because of complete closed point

- As to “Use issuer’s service”, normal as 1 point can be equivalent to 1 yen
- As to “Use partner’s service”, a little less than above (“Use issuer’s service”) if point program can be used in this case because an issuer company must pay value fee of partner’s service
- As to “Low cost”, normal as 1 point can be equivalent to 1 yen
- As to “Number of Customers”, normal as an issuer company retains own customers by oneself
- As to “Number of Partners”, nothing because of complete closed point
- As to “Point Fascination”, a little because of nothing special
- As to “Point Exchange Rate”, equal value if point program can be exchanged

From above explanation, 3 operators are compared with a complete closed point company DATUM (Table 2). Airline’ program has the most scores of +, therefore they can center alliances and can sale the millage for many partners. An open point company has a few more scores than near close point one. The reason is supposed that mass home electronics retailers give customers more points than other industries, so the difference in the case of Table 2 is smaller than in other cases.

Table 2. The Evaluation of the Representative Enterprise Currencies by Pugh’s Method

Criteria		Airline Company that Centers Alliances (ex. JAL / ANA)	Open Point Company (ex. TSUTAYA)	Near Closed Point Company (ex. Bic-camera)	Complete Closed Point Company (A company)
Customer Merit	Get points from an Issuer	+	s	+	
	Get points from Partners	+	+	s	
	Use issuer’s service (ex. Discount products)	+	s	s	
	Use partner’s service (ex. Exchange e-money)	-	s	+	D
Issuer Company Merit	Low cost (Issuing cost)	+	s	-	A
	Number of Customers (Relationship)	+	+	s	T
	Number of Partners (Exchangable Partners)	+	+	s	U
Partner Merit	Point Fascination	+	s	s	M
	Point Exchange Rate	-	s	s	
Score	of +	7	3	2	0
	of -	2	0	1	0
	of s	0	6	6	9

“+” means better than  
“-” means worse than  
“s” means same as DATUM

## Designing the Effective Use of Enterprise Currencies

As we have seen in the examples from above, enterprise currencies can be made more attractive by increasing the number of “get” options, while similarly increasing the number of goods and



services having a high perceived value that constitute the “use.” It is important to remember that the “get” is the “points that we collect,” while the “use” is the “goods and services we want to purchase with points.”

When point program alliances are considered in the future, a company’s own target markets for its point program should be clarified first. By also considering the possibility of sharing mutual customer databases, a partnership should be established with a company that has customers that can contribute to strengthening and supplementing the establishing company’s own point program.

By establishing alliances based on customer behavioral processes and life cycles [Yasuoka, 2008], we can establish new alliances that are rarely seen even in the United States. We propose the establishment of the following new alliances as we move towards the future.

- Alliances based on product value chains
- Alliances based on services used
- Alliances based on (domestic) areas

We describe some of the concepts related to these new types of alliances in the following sections.

### **Alliances Based on Product Value Chains**

First, we will consider an alliance between multiple companies covering the entire process up to providing maintenance support by a manufacturer. Here, as an example of a consumption value chain from manufacturing to retail sales, we consider the sales of automobiles (Figure 4).

First, the manufacturer awards points directly to a vehicle buyer, handling it as an advertising and sales promotion cost, while the dealers spend the sales promotion costs every time they sell to a repeat customer. When the customer buys insurance, he or she is again awarded points. The points accumulated in this way can be used to pay for low-cost parts and accessories for vehicles.

Because the cost for oil is high, points are awarded every time the owner brings the vehicle in for an oil change, rather than allowing the owner to use points. He or she can then use those points to pay for regular servicing. Furthermore, this point system on product value chains does not have to be limited to sales outlets. By extending the scheme to used-car buyers, the scheme can cover not only the life cycle of a vehicle, but also the customer’s entire vehicle-use process. Accordingly, the participation of used-car buyers in enterprise currency alliances is considered appropriate. In this way, new alliances will be better able to take on competition even for individual companies that are not large.

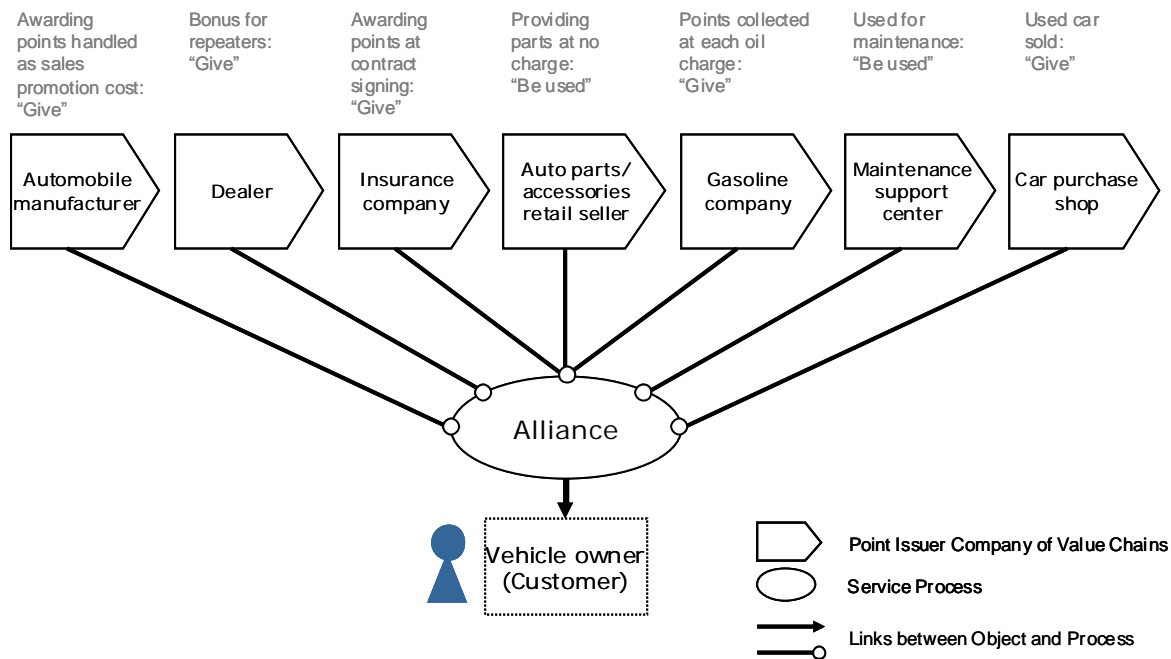


Figure 4. Enterprise Currency Alliance Covering Up to Provision of Maintenance Support in Sales of Automobiles (indicated by OPM: Object-Process Methodology)

### Alliances Based on Services Used

#### (1) Alliances based on the integration of services used such as the Internet

Alliances can also be set up based on those services that are used at the same time the Internet is accessed. Because the user first needs broadband infrastructure, the user must have a contract with an Internet service provider. When the user actually surfs the Internet, he or she will go through a portal site or a content provider site. Accordingly, if the providers of these services form an alliance by taking the customer's point of view, an enterprise currency under such alliance would be very effective and offer excellent value.

This approach not only applies to Internet access, but also to electronic commerce, with Rakuten's "Super Point" being a good example. This scheme is not limited to group companies such as Rakuten Ichiba and Rakuten Travel, but is also linked with the above-mentioned ANA (by anticipating the sales of airline tickets via a website), NTT Communications, etc. Each of these companies honors the points issued by the others. This alliance is not just an alliance between group companies, but can be said to be a service alliance for the IT era.

#### (2) Alliances based on a common brand

An example of this approach is the "WiLL" project that was launched as a common brand of several different companies in 2000. The "WiLL" project set out to create a new brand targeted at the "new generation" market. (According to a press release issued by the participating companies, this market consists of people who actively seek out the information available in an information network society, and who attach great importance to their own preferences.) While "WiLL" was jointly adopted as a new marketing technique by different businesses including foodstuffs, autos, cosmetics, appliances and the travel industry, it failed to become popular with consumers.

However, it was highly likely that WiLL would have been accepted by customers if a common enterprise currency had been issued as a means of providing practical advantages based on a common loyalty program, which might have led to establishing a closer relationship.

Consumers probably viewed this relationship between participating companies only in terms of brand name. Accordingly, it would not have been very likely that a consumer who bought a WiLL car from Toyota would then go out and buy WiLL cosmetics from Kao. However, if enterprise currencies were used to link the participating companies, this project would have led to new alliances as Figure 5.

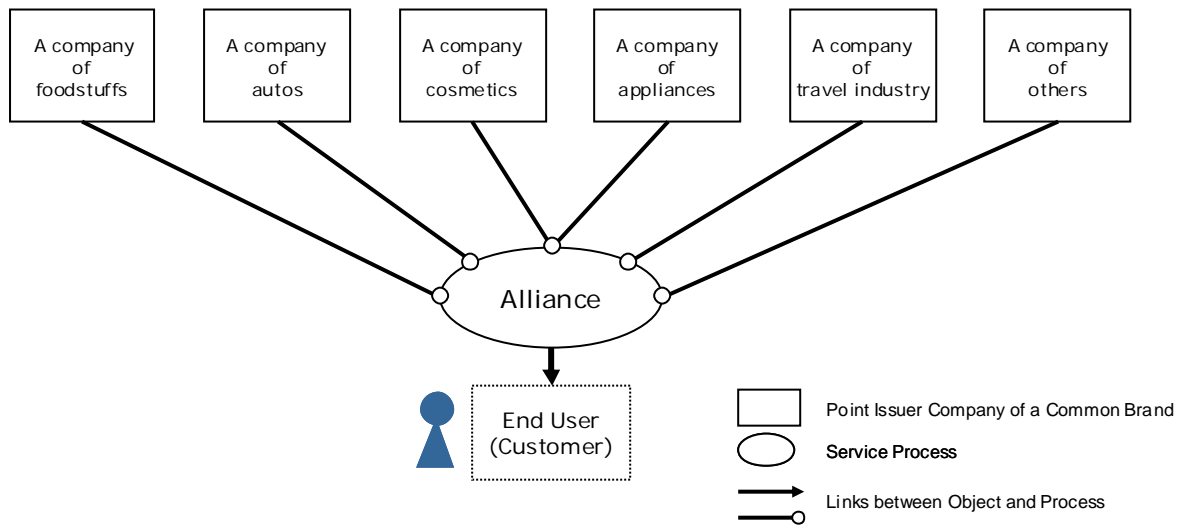


Figure 5. Enterprise Currency Alliance Based on a Common Brand (indicated by OPM)

### (3)Alliances based on a common platform

By considering a common platform for providing digital content, it is likely that the media industry, such as TV, would participate in a enterprise currency program as a means of paying for digital content. The structure of the media industry is similar to that of airline industry in that, although the initial costs are very high, profits can be expected and marginal costs are very low. If customers can use a common points scheme to pay for desired content, points (the advertising and sales costs of advertising companies) will eventually flow to those providers offering popular content. It would also be possible to use a common enterprise currency as such a common platform. In this case, from the standpoint of companies that implement advertising and sales, they can effectively assign their costs.

### Alliances Based on Domestic Areas

Here, we consider “area currencies” that are enterprise currencies based on areas. An excellent example of this is the “earthday money” that is issued by an alliance between the geographically distant Shibuya district in Tokyo and Ito district in Shizuoka prefecture. This area-based currency is issued by a non-profit organization (NPO) called the “earthday Money Association,” and can be used in a wide range of stores in either area.

However, because the purpose of an area currency is environmental protection, etc. (which is the feature of an area currency), in many cases earthday money can only be received when activities are conducted for NPO projects. Participating stores treat earthday money as a sales cost, and allow it to be used for payment. However, earthday money is not given out when a purchase is made at a store. If we consider the circulation and spread of an area currency, however, it would seem desirable to also issue the currency for purchases.

An ideal approach would be to provide a mechanism enabling an area currency to be used more widely and to establish an environment supporting and vitalizing local businesses in the area. In turn, this would also promote the volunteer work of the host NPO and lead to further spread of the area currency. By expanding the coverage of a railway company's group points, an alliance could be established with the area currency in the area along the railway line (Figure 6). This kind of alliance is based on the area in which the consumers make purchases and might lead to a new evolution of area currencies. Currently, there are over 600 schemes around the country, although none of them is very active.

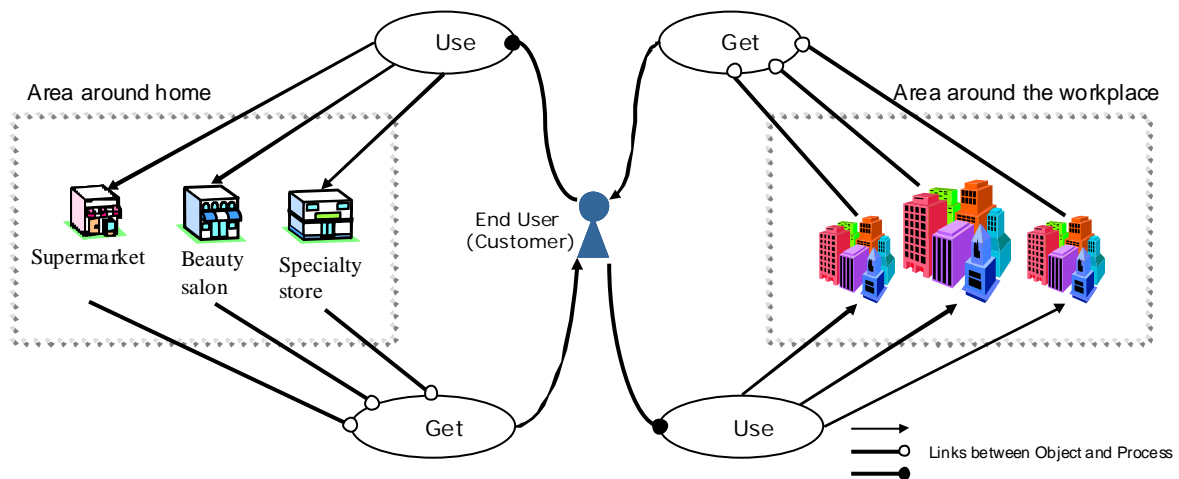


Figure 6. Alliance Involving Area Currency and Local Businesses along a Rail Line (indicated by OPM)

### The Evaluation of the New Alliances Designed by Enterprise Currencies

As explained in the previous sections, we can evaluate enterprise currency. Therefore the new alliances designed by enterprise currencies are made to evaluate by Pugh's Method and previous items of criteria. We suppose a complete closed point company to be DATUM (Table 3).

Table 3. The Evaluation of the New Alliances Designed by Enterprise Currencies by Pugh's Method

Criteria		Product Value Chains	Services Used (Common brand)	Domestic Areas	Complete Closed Point Company (A company)
Customer Merit	Get points from an Issuer	s	s	s	
	Get points from Partners	+	+	+	
	Use issuer's service (ex. Discount products)	s	s	s	
	Use partner's service (ex. Exchange e-money)	+	+	+	D
Issuer Company Merit	Low cost (Issuing cost)	+ Able to be adjusted by each product	+ Brand fee including point one (Scale merit)	s	A
	Number of Customers (Relationship)	+	+	+	T
	Number of Partners (Exchangable Partners)	+	+	+	U
Partner Merit	Point Fascination	+	+	+	M
	Point Exchange Rate	s	s	s	
Score	of +	6	6	5	0
	of -	0	0	0	0
	of s	3	3	4	9

Figure 4

Figure 5

Figure 6

"+" means better than  
 "-" means worse than  
 "s" means same as DATUM

Product value chain and service used common brand have a few more score than domestic areas because each field is near, so each alliance's cost become low. But domestic areas in an alliance are near areas or near concepts, for example sightseeing places for the same target customer, their costs will perhaps become low.

By using a variety of alliances as explained, the criteria of enterprise currencies become better. Therefore, an issuer company of enterprise currency should adopt any new effective alliance. However, complete other alliances than ones as explained can't perform because of non-relationship with partners.

## Conclusion

As explained in two last sections, we have successfully evaluated the representative enterprise currencies and the new alliances designed by enterprise currencies by a certain degree of objectiveness. The new alliances are based on product value chains, services used, domestic area according to the customer behavioral processes or product life cycles. Those evaluations are used by Pugh's Method in SE. And these items of criteria in this method are related to stakeholders of customers, issuer companies and partners. We evaluated above enterprise currencies compared to a complete closed point, and chose merits of customers, an issuer company and partners. By these future alliances, enterprise currencies will become more effective in this evaluation than closed type. Therefore, by using a variety of new alliances, enterprise currencies have better performance. Consequently an issuer company of enterprise currency should adopt any new effective alliance.

A variety of systems to make use of enterprise currencies will be considered. At the same time, we

also face the issue of systems and standards to further develop enterprise currency into a highly convenient, safe and secure tool that could be used frequently by many consumers all over the world. And alliances designed by enterprise currencies contribute to effects of company's IR (investor relations) due to the image of expanding coverage area and so on. Therefore, we will try to consider other criteria in detail and apply them internationally in the future.

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