2017 Cultural Administration Research Survey

A Quantitative Evaluation:

The Economic and Social Effects of Culture

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Introduction

This report is a survey report on the economic and social impacts of culture, mainly from the perspective of economic scale. The survey was commissioned by the Agency for Cultural Affairs to the Communication Design Institute under the title of “2017 Cultural Administration Research Survey-A Quantitative Evaluation: Economic and Social Effects of Culture”.

The survey period is from December 15, 2017 to March 30, 2018. The outline is as follows.

(1) Purpose of the survey

In cultural administration, when considering what fields in the future or in what methods to implement highly effective cultural policies and measures, numerical evaluation of the economic and social impacts of culture is very important point.

In this study, the economic scale of culture was calculated based on the cultural GDP calculated in the “Research Project on Economic Scale and Economic Ripple Effect of Cultural Industries” conducted in FY2015.

The purpose of this survey is to clarify the relationship between culture and economy and to consider cultural measures to be taken in the future.

(2) Survey details

1) Examination from the economic aspect (cultural GDP) of the new cultural policy that the Agency for Cultural Affairs works on

Case studies were conducted in four fields: “movie”, “tea ceremony”, “Japanese sake” and “national treasure Matsue Castle”. Basically, we focused on literature surveys, and for tea ceremony and sake, we conducted a questionnaire survey (Internet survey) and an interview survey to grasp the actual state of cultural activities and consumption.

In conducting the survey, a study group consisting of experts in cultural theory, economic statistics, and cultural economics was organized, and approached from both cultural theory and economics, such as cultural framework, definition, and quantification.

Study group members (Title is as of 2017)

・Kiyoshi Fujikawa
Professor, Applied Social System Institute of Asia, Nagoya University: Economic Statistics

・Masatishi Takada
Professor Emeritus, Mukogawa Women's University: Cultural Theory

・Tadashi Yagi
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2) Research on new cultural GDP

Based on the calculation method of cultural GDP in other countries and recognition of the relationship between culture and economy, etc., we researched the appropriate calculation method of new and cultural GDP and examined the issues.

3) Proposals for new cultural measures

In the relationship between culture and economy, we proposed the promotion of cultural satellite account (CSA) as one of the directions of new cultural measures that the Agency for Cultural Affairs should implement in the future.

Abbreviations

CSA	Culture Satellite Account
FCS	Framework for Cultural Statistics
GDP	Gross Domestic Product
SNA	System of National Account
TSA	Tourism Satellite Account
VA	Value Added

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■Chapter 1 Towards a calculation of cultural GDP

1.1 Quantitative evaluation of economic and social effects of culture

1.1.1 Approaches to cultural GDP

Gross domestic product (GDP) is one component of the System of National Accounts (SNA) and is a key economic indicator describing a systematic record of the production, consumption, investment, assets, liabilities, stocks, etc., of a country, and is used to denote the scale of its economy. GDP is the collective value added that is produced during a given period (generally, one year), and growth in GDP describes the economic growth rate.

There are three types of GDP: from the aspect of production, from the aspect of distribution (income), and from the aspect of expenditure. In macroeconomics, these three are equivalent (three-surface equivalence principle). From a production perspective, GDP is expressed by the following formula.

Domestic production - intermediate inputs = value added (GDP)

Applying this methodology for computing GDP to a cultural context allows us to arrive at cultural GDP.

Column 1: Structure of cultural GDP

As an example of cultural goods and services, assuming that a Japanese film costs ¥2,000 at a movie theater, GDP is calculated as shown below (amounts are provisional). In this model, the cultural GDP of the movie studio is ¥1,500. Domestic production value is ¥4,500 and intermediate input is ¥3,000. If all the goods and services related to culture are be added up in this way, the cultural GDP can be calculated theoretically.

Table 1-1 GDP Model (Movie)

	Movie production companies	Movie distribution companies	Movie theaters/cinemas	Total
Total domestic production	1,000	1,500	2,000	4,500
Intermediate inputs[1]	500	1,000	1,500	3,000
Value added	500	500	500	1,500

(Source: Prepared by CDI) (Unit: JPY)

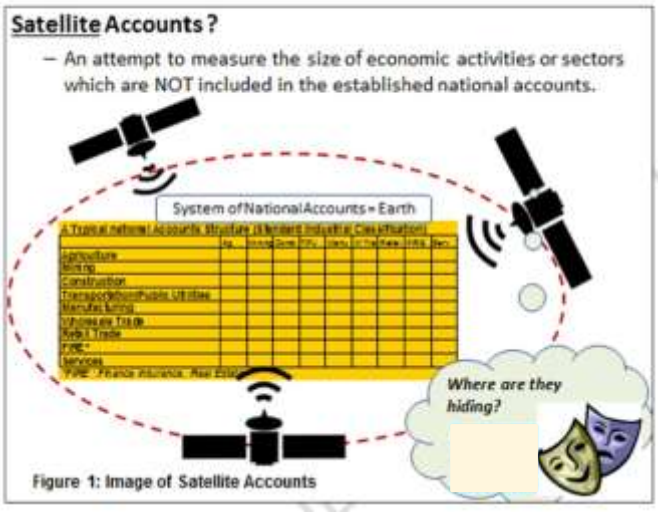
[1] The above does not take into account the value added of intermediate inputs from goods and services produced by movie production companies.

1.1.2 Cultural GDP and the Culture Satellite Account (CSA)

The System of National Accounts (SNA), which forms the basis for calculating GDP, is a framework used to systematically record economic activity in the industrial sector; as such, it does not incorporate an economic or systematic accounting of cultural activity in its scope. While cultural activity's implications on the economy may not be immediately visible, they to some extent form a part of SNA. Applying SNA to the sphere of culture requires identifying cultural factors latent within the SNA framework and quantifying them, then reapplying these to SNA.

Given that this involves identifying aspects implicit in the SNA framework, SNA is likened to the globe, with the task of identifying these factors being likened to a satellite around the globe, which gives us the appellation SA (Satellite Account).[2]

Figure 1-1 Satellite Account concept image



Source: An Examination of Current Methodologies and Country Experiences, UNESCO Institute for Statistics, 2015

The cultural version of the satellite account is the "Cultural Satellite Account (CSA)". If cultural GDP is calculated according to the SNA framework, it can be compared with other industrial sectors and economic activities that are also calculated according to the SNA framework. This would allow for measuring the proportion, degree of contribution, and rate of growth of the cultural industries at the national level.

Furthermore, given that SNA is based on an international framework, it would also allow for international comparative analysis of cultural GDP. Given that GDP is also used for analysis of local and regional economies, this would also allow for further defining cultural activity and cultural industries in specific regions (such as in the context of degree of contribution to job creation, etc.).

For these reasons, CSA not only provides a functioning "database" of economic analysis and policymaking that accommodates economically-informed approaches of culture, but also offers useful policy metrics in the form of growth rate and scale (increase) of ratio. New insights have come to light about the social value of culture, and more effective and logical bases for policymaking and measures for the promotion of the culture are being sought.

[2] The Satellite Account concept is also being applied to areas like tourism, the environment, non-profit areas like volunteer activities and NPOs, and welfare sectors like nursing and childcare.

1.1.3 Issues posed by this research

This research posed two specific issues.

1. Technical dimensions of quantifying culture from a social and economic vantage point

One current issue in terms of quantifying culture and the arts is creating a system for the calculation of cultural GDP through Culture Satellite Account (CSA). Calculating cultural GDP using CSA allows for creating a common framework for the quantification of culture alongside the economy and industry.

However, the scope of cultural activities subject to CSA is quite wide-ranging. Furthermore, there are many aspects of culture that cannot be quantified, such as the way in which the joy of unpaid creative expression acts as motivation for said activity, among other areas in which the commodities therefore cannot be interpreted as mere commodities or the object of consumption.

Taking this into account and seeking to perform a multi-polar inquiry into the technical dimensions of how to proceed with this project and what problems may be posed, we have restricted the scope of this research to a preliminary calculation of cultural GDP in four domains.

2. Making use of quantified outcomes on social and economic impact of culture and the arts

Quantifying the social and economic impact of culture or calculating cultural GDP is not a goal unto itself; rather, the resulting figures would ultimately be used in social and economic contexts in order to promote the culture. This research performed a simulated calculation of cultural GDP in four domains and examined the significance of the results therein.

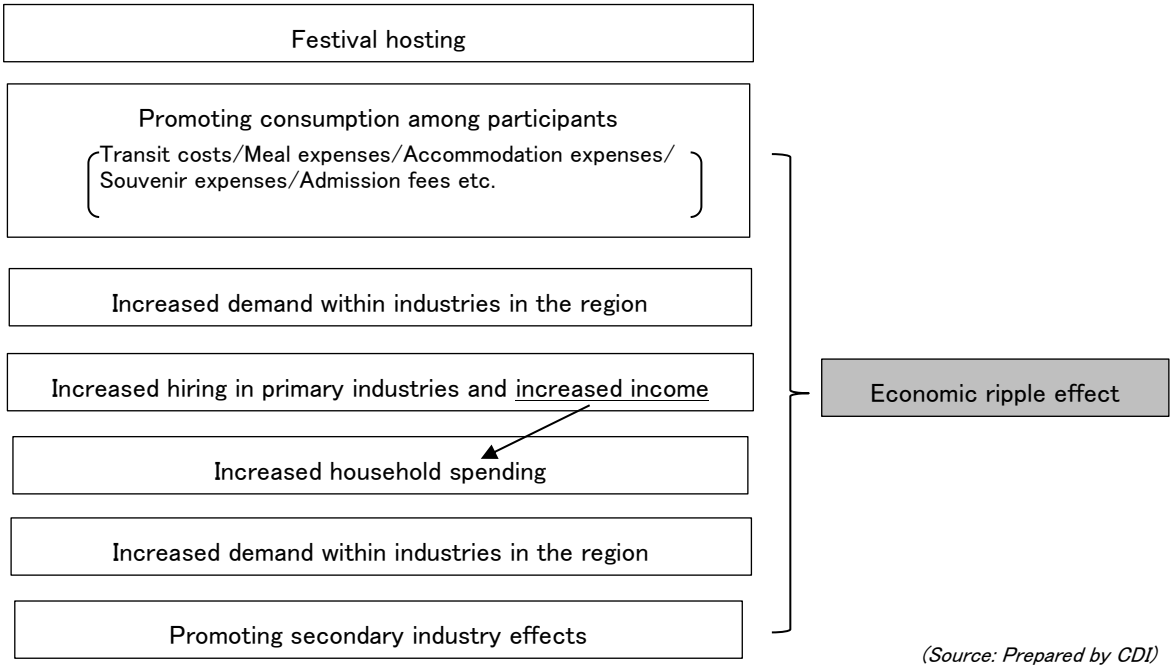
Column 2: Economic ripple effects and cultural GDP

In addition to calculating the cultural GDP from the Cultural Satellite Account (CSA), there is a method of calculating the "Economic Ripple Effect of Culture" (hereinafter "Economic Ripple Effect") as an attempt to quantify cultural arts economically.

The economic ripple effect occurs when a change occurs in the production value or price of a certain industry and the production value and price of other industries are successively influenced through transactions between industries. This effect can be calculated using an input-output table. Apply this to culture and it is called the "economic ripple effect of culture".

For example, the economic ripple effect of holding a "cultural festival" has the structure shown below

Figure 1-2 Economic ripple effects from cultural festivals



(Source: Prepared by CDI)

This example calculates where and how much consumption (production) is induced when a new investment expenditure (holding cost) is input to hold a cultural project, and the economic ripple effect is the total amount. This economic ripple effect includes not only production-inducing effects but also new job creation effects. This is because new production induces new jobs.

Increasing investment by producers (businesses and governments) will increase national income, increase consumption, increase national income, further increase consumption, further increase national income, and further increase consumption. This chain effect on the economy is the economic ripple effect. This cycle of increase is a multiplier effect that is a multiplier (multiplication) increase in investment growth, and this multiplier theory is used to calculate the economic ripple effect. In contrast to the economic ripple effect of a culture that seeks a ripple effect (spread), cultural GDP differs in that it seeks the scale of industrial value produced within a certain period of time.

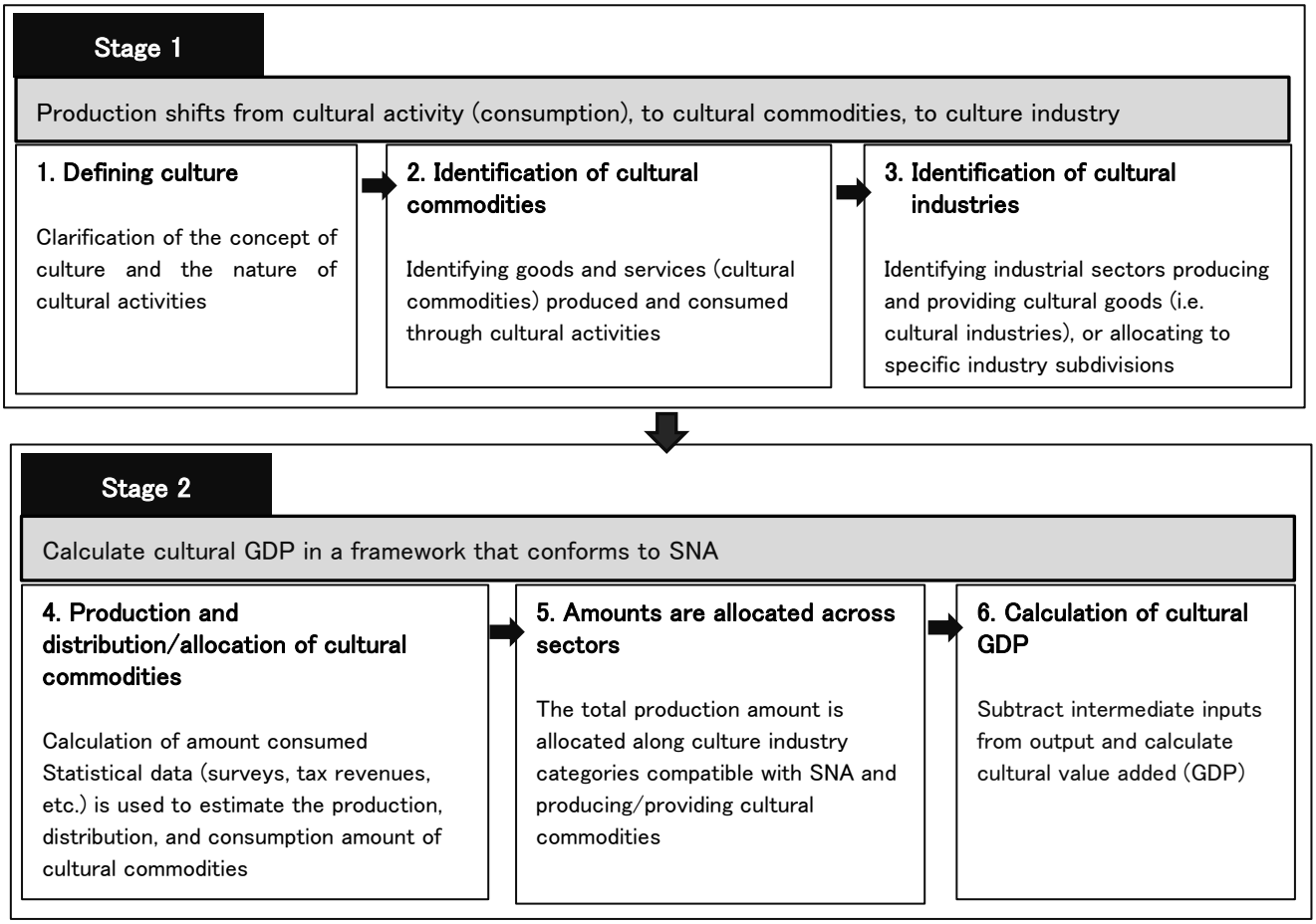
1.2 Framework of the Culture Satellite Account (CSA)

1.2.1 Overall summary

The Cultural Satellite Account (CSA) framework largely consists of the following processes.

Starting from cultural activities (consumption), the activities (consumption) are converted into products, and the corresponding industrial sector is determined from the products to convert from consumption to production. In this way, the framework conforms to the National Accounts (SNA).[3] This is a rough procedure for calculating cultural GDP.[4]

Figure 1-3 CSA implementation process



Source: Prepared by CDI

[3] In general, GDP is calculated on the production side. For the calculation, two tables are used: the SNA appendix of goods/services by economic activity (product output table by industry: V table) and the input of goods and services by economic activity (product input table by industry: table U). Specifically, the output is estimated based on the V table, and the GDP is calculated by subtracting the intermediate input in the U table. This is a method of estimating value added by industry (value added method) and is also used in the tourism satellite account (TSA). However, the SNA supplementary table is a rough industrial classification, and it does not correspond to specific cultural products. Therefore, when calculating the cultural GDP in this case study, an input-output table, which is an industry classification corresponding to fine cultural products, was used. For this reason, this report uses the phrase "compatible with SNA". For movies and sake approached from the production side, the cultural GDP was calculated by excluding non-household consumption expenditure from the gross value-added sector of the relevant industry in the input-output table. For the tea ceremony and national treasure Matsue Castle approached from the consumer side, we calculated the cultural GDP of the entire industry (production side) using the inverse matrix coefficient.

[4] In general, GDP refers to domestic production value minus intermediate input. However, the gross value added used in this survey is the gross value added sector of domestic production values in the input-output table, excluding non-household consumption expenditure. This is to correspond to GDP in SNA (National Accounts). SNA gross value added does not include non-family spending.

1.2.2. Summary of each stage

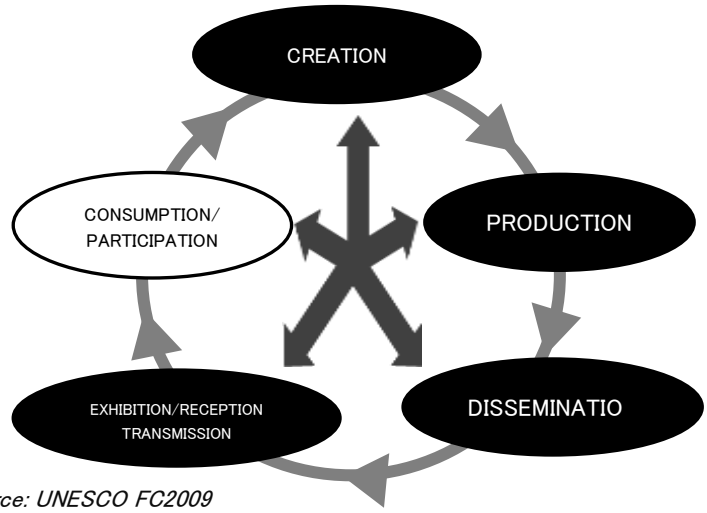
Defining culture

The first stage of Culture Satellite Account (CSA) begins by determining the scope and nature of the cultural activity to be accounted for. The calculated value varies depending on the range of culture. Therefore, creating a cultural framework and defining culture are important.

It is also important at what stage the culture is perceived. "UNESCO FCS 2009" states that there are the following five stages of circulation processes. And this report points out that the compilation of CSA needs to capture economic activities (monetary transactions) at the “consumption / participation” stage of the final stage of the process. This expresses the recognition that culture has a social cycle that begins with creation and ends with social enjoyment (consumption/participation).

This UNESCO definition is treated as an international standard in the CSA calculation currently underway in several countries. In this research study, including the scope of the culture in the next section, we are proceeding with examination in accordance with the standards presented by UNESCO.

Figure 1-4 Culture cycle (UNESCO FCS2009)

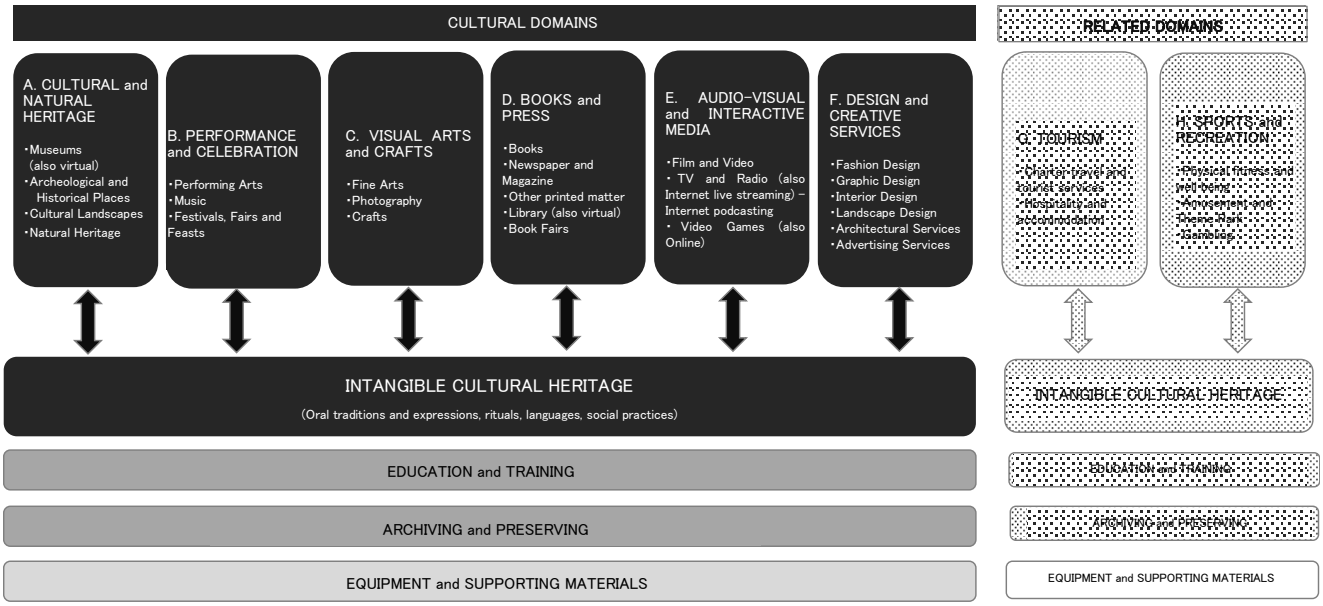


Source: UNESCO FC2009

Scope of culture

UNESCO has also further defined culture and proposed the following six cultural domains and three lateral domains as a framework (UNESCO FCS 2009). This is the underlying premise used in the form of CSA recommended by UNESCO.

Figure 1-5 Framework for cultural statistics domains (UNESCO FCS2009)



Source: UNESCO FC2009

Identification of cultural commodities

Cultural products are goods and services that are consumed within the scope and content of cultural activities defined so far. These are particular goods and services associated with cultural activities. For example, art activity is a type of cultural activity. Inherent cultural products for art activities include materials and tools such as paint, purchased artworks, art-related books, entrance fees for art exhibitions, and tuition fees for painting classes. As described above, in the area of each cultural activity, "cultural product identification" work is to identify specific products for the cultural activities in those areas.

Identification of culture industries

Industries producing and supplying cultural commodities particular to a given cultural domain are identified and treated as "culture industries." Taking artistic activity as an example, specific products are linked to the industries that produce them, as follows:

Painter: Writing/Artist Industry (Japan Standard Industry Classification)

Paints and art tools: Other manufactured industrial products (writing and stationery) (37 categories) Brush or painting supplies manufacturing industry (excluding pencils) (Japanese standard industry classification)

Art works: Retail not classified elsewhere (art retail) (Japanese standard industry classification), Artist and Artist (Author / Artist) (Japanese Standard Industry Classification)

Art books: Information and communication (37 categories), or publishing (Japanese standard industry classification)

Exhibition fee for art exhibition: Education/Research (in case of public art museum/non-profit) (37 areas) Or museum / art museum (Japan Standard Industry Classification)

Painting class: Personal services (37 categories) or other liberal arts / skills teaching (Japanese standard industry classification.

Column 3: Accounting from a consumption and production basis

According to the “three-sided equivalence principle”, the GDP in terms of production is equal to the GDP in terms of expenditure. Therefore, the result is the same whether the account is started from production or consumption (expenditure). If so, it can be considered that starting from production is more efficient in calculating cultural GDP. It also states: “The method of making an industry sector as a producer of cultural activities can lead to overestimation and underestimation of cultural production. Without a reasonable distribution index, all output from an industry sector is cultural. Finland and the UK are making this a future issue. Uruguay raises the risk of overestimation in the fields of communications and information technology as well as in the field of architecture and software." Overcalculation leads to overestimation, and one country's cultural GDP is overestimated.

In this way, capturing culture from consumption (demand) rather than production will lead to the following ideas in addition to problems from the technical side. “Culture is produced by people's cultural activities, not necessarily by the industrial sector.”

Estimating production, distribution, and consumption of cultural commodities

The amount of production, distribution, and consumption of various goods and services must be estimated at a particular threshold or interval. In Japan, these amounts must be estimated from economic census, household finance surveys, or with reference to industry sales data.

Allocation to specific cultural industries

In accordance with the “1.2.2.4 Extraction of cultural industry” work, allocate to each industry sector and total the amount. By doing so, the production value of each production sector falls within a framework compatible with the National Accounts (SNA) in the process of “starting from the consumption of cultural products to the production sector of cultural products”.

However, as shown in the example of art in “1.2.2.4 Extraction of cultural industry”, the assigned industrial sector as a whole is often not a cultural product production sector. For example, there are cases where paints and art tools are allocated to a plurality of industrial sectors as part of “brush and painting supplies manufacturing industry (excluding pencils)” and “other manufacturing industrial products” in the industrial classification. In such a case, the ratio of cultural products in the sector is set as follows.

$$\frac{\text{Total sales of cultural commodities in the sector}}{\text{Total sales of all products in the sector}} = \text{Proportion of cultural commodities produced}$$

Calculating cultural GDP

Based on SNA itself or a framework suitable for SNA such as an input-output table, intermediate value is subtracted from domestic production value to calculate value added (GDP). Japan's cultural GDP is the sum of the GDP of various cultural and industrial sectors that produce cultural products

Table 1-2 Calculation concept of cultural GDP

	Cultural Industry A	Cultural Industry B	Cultural Industry C	・・・・・・・	Cultural Industry Z	CSA
Intermediate input (a)	*x1A*	*x1B*	*x1C*	・・・・・・・・	*x1Z*	$\Sigma j\ x1j$
	x2A	*x2B*	*x2C*	・・・・・・・・	*x2Z*	$\Sigma j\ x2j$
	x3A	*x3B*	*x3C*	・・・・・・・・	*x3Z*	$\Sigma j\ x3j$ Total of cultural Intermediate input
	・	・	・	・ . ・ . ・		
	xnA	*xnB*	*xnC*	・ . ・ . ・ ・	*xnZ*	$\Sigma j\ xnj$
VA(b-a)	*vA*	*vB*	*vC*	・・・・・・・・・	*vZ*	$\Sigma j\ vj$ (cultural GDP)
Domestic production (b)	*xA*	*xB*	*xC*	・・・・・・・・・	*xZ*	$\Sigma j\ xj$ (Domestic cultural Production value)

Source: Compiled by CDI

■Chapter 2 Case studies

2.1 Summary of case studies

2.1.1 Positioning of case studies

As already mentioned, and as seen in the definition of UNESCO, the areas and contents of cultural activities are broad and diverse, and it takes a lot of time and effort to give and organize a framework. It should also be taken into account that work on the Cultural Satellite Account (CSA) was recently started and is at a trial stage, and no method or technology has been established.

Based on this situation, this study selected four fields as the subject of the case study and tried to calculate cultural GDP for each field. Through case studies in four fields, it will be possible to grasp how technically the CSA calculation work should proceed in the future and the problems that will occur at that time.

2.1.2 Aspects of four domains

The case study covers four areas: movies, tea ceremony, Japanese sake, and Matsue Castle (designated as a national treasure). The characteristics of these four fields and the reasons for selection are as follows.[5]

Movies

"Movies" is positioned as an industry sector within the framework of the National Accounts (SNA). In addition, the "Specific Services Industry Survey (Ministry of Economy, Trade and Industry)" and statistical data from industry groups are in place. Using these existing data, the cultural GDP of the film industry can be calculated (satellite accounting) within a framework that is compatible with SNA. In addition, related fields such as movie production, DVD sales/rentals, and television broadcasts may be considered as the cultural industry sector. For this reason, the cultural sector and the industrial sector are smoothly connected, and the laborious division and separation of labor required for the satellite account is relatively easy.

Tea ceremony

Tea ceremony" is easy to define as culture because the whole activity is cultural activity. In addition, it is an area in which various other cultural and artistic fields such as flowers, calligraphy, pottery, kimono, gardening, etc. are involved. However, the connection with specific industrial sectors has not been analyzed. In addition, figures such as consumption and production are not available.

This situation is expected in several areas related to culture in the future. For this reason, the tea ceremony field

[5] For the calculation, the input-output table used is the 2014 extended input-output table (2014 price) and the 2011 Shimane prefectural input-output table. In addition, the consumption and production value of sake and movies were based on the 2014 Industrial Statistics Survey and the Survey on Specific Service Industries. In addition, the movie rental sales are based on the 2012 economic census, the tea ceremony population is the 2016 basic survey on social life, and the Matsue Castle related statistics are based on the 2016/2017 tourism survey. For this reason, the cultural GDP of each field does not represent a certain year.

can be called a miniature version of a satellite account, and is an appropriate field for case studies.
In fields such as the tea ceremony, micro data (data on actual activities and actual consumption) is required to utilize existing macro data (such as SNA, input-output tables, and economic census).

Japanese sake

With regard to “Sake”, statistical data on sake itself is incorporated in the economic census and input-output tables, and is relatively well prepared. There are also data on consumption in household surveys. However, when looking at sake from the viewpoint of culture as well as from the amount of production and consumption, it is necessary to define it as a culture by approaching it from the viewpoint of how it is consumed and the awareness of its roles and symbolism. For example, the same Japanese sake product (for example, the bottle of sake) can be simply consumed as an alcoholic beverage or used as an offering dedicated to a shrine.

In this way, sake is an area where the product itself is easy to grasp, but the issue is the understanding of its cultural characteristics. These issues of sake are similar to the issues of distinguishing general consumption from cultural consumption in the areas of lifestyle and culture (eg clothing, food and housing).

Matsue Castle (a designated national treasure)

This is an attempt to capture the economic effects of “Matsue Castle” designated as a national treasure as cultural GDP. Until now, economic ripple effects have been mainly estimated in relation to national treasure designation, world heritage registration, and Japanese heritage certification. On the other hand, this is a case where the newly induced production effect is seen as added value, and is regarded as cultural GDP.

The regional economic effects of cultural policies can be quantified by examining whether one of the cultural property protection policies designated as a national treasure has boosted regional GDP as its policy effect. Furthermore, since the target is a cultural property called Matsue Castle, it will be positioned as a clue when trying to convert the existence value of the cultural property into economic value in the future, and will contribute to the study various issues.

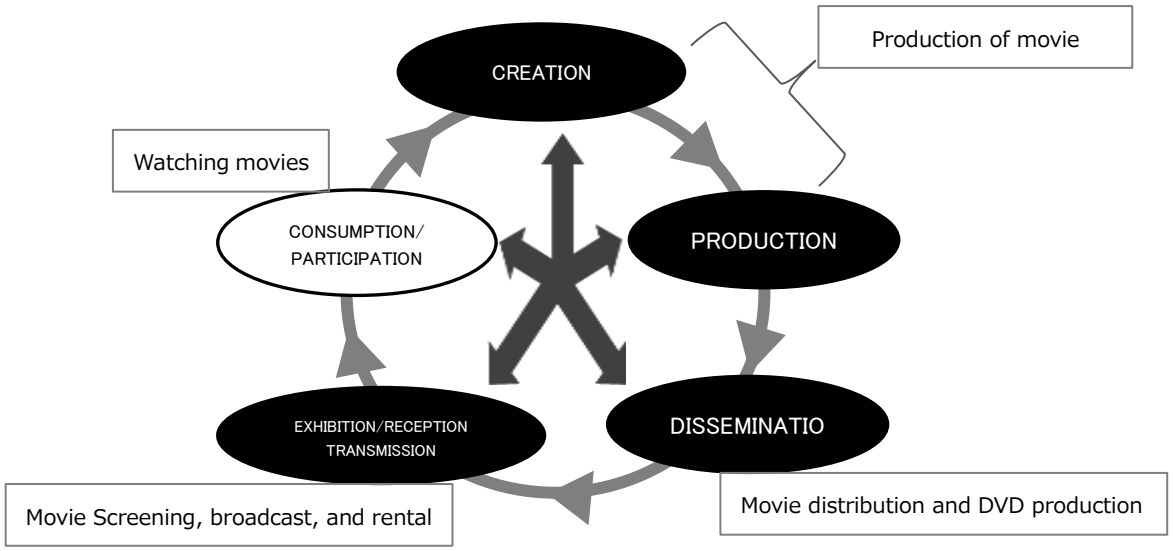
2.2 Cultural GDP of movies

2.2.1 Stage 1

Defining the movie domain

There are two streams of "movie" as cultural activities: "production, distribution, screening, and appreciation" (primary use) and "production, DVD production, sales/rentals, and appreciation" / "production, airing on TV, and appreciation" (secondary use). These are all "production, transaction, consumption" cycles. When this is applied to the UNESCO culture cycle, it appears as shown in the figure below.

Figure 2-1 Cultural cycle of the movie domain



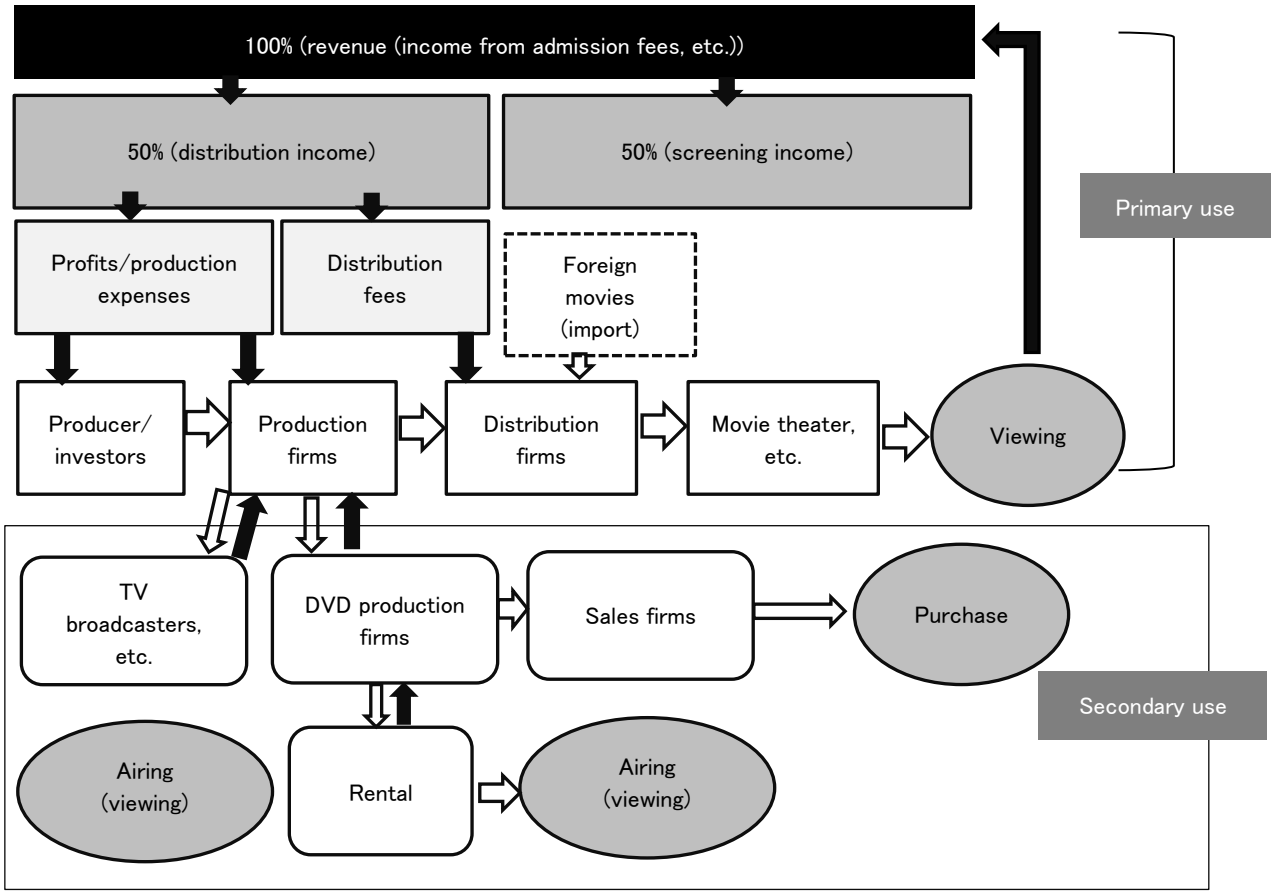
Source: Prepared by CDI based on UIS

Identification of movie commodities

This circulation structure is represented by the transaction structure as shown in the figure below. The consumption/participation stage, except for voluntary screening, is mainly in three forms: "watching at a movie theater", "purchasing/renting a DVD, etc." and "viewing a TV broadcast". These are the final consumption/ participation aspects of the movie category, and at the same time, the product unique to the movie domain (the movie itself).[6]

[6] In recent years, Internet distribution such as on-demand distribution has been rapidly increasing in this field. The transaction structure of this research study does not include such factors. This is a future issue to consider.

Figure 2-2 Structure of transactions in the movie industry

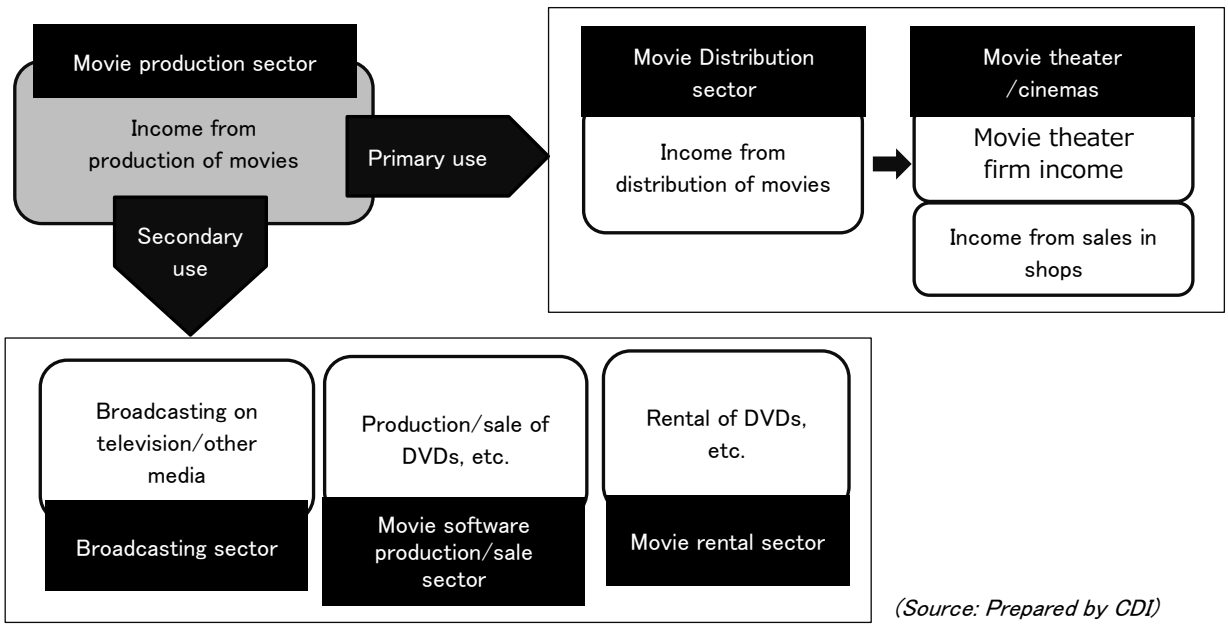


(Source: Prepared by CDI)

Identification of movie industries

Based on the transaction structure of the movie industry, movie products are made to correspond to the following industrial sectors related to production, distribution and services, and these are designated as the movie industry.

Figure 2-3 Structure of the movie industry



(Source: Prepared by CDI)

2.2.2 Second stage

Calculating production/consumption amounts of movie commodities

The final consumption of movies is entrance fees at movie theaters, DVD purchase or rental fees, television rights for broadcasting, etc. Among these, the business model of primary use of movies (production of movies → distribution → entertainment) is unique. In the three stages of production/distribution/entertainment, the final box office revenue (sales) flows back to distribution and production, rather than the transaction structure of purchasing goods and servicess from the previous stage. Specifically, a movie production company does not sell a movie product to a distribution company, and a distribution company does not sell a movie product to an entertainment company (movie theater). About 50% of the movie theater admission revenue (primary usage) is revenue (sales) by the box office companies such as movie theaters, and the remaining 50% is revenue (sales) by the distribution company and production company. Therefore, the primary use of movies is linked to the sales of distributors and production companies in the amount consumed in movie theaters. Based on such a transaction structure, the sales of each industrial sector constituting the movie industry are calculated using various statistics of the country and industry.

●Primary use

1. Revenue in movie production and distribution sector

   Annual sales of film and video production work in the "2014 Survey on Specific Services Industries" corresponds to total sales. However, since the film production and distribution cannot be separated in this survey, total sales are combined. The sales amount is 1,947 million US dollars.

2. Theater box office income

   According to a report by Japan Filmmakers Federation, 2014 box office income at movie theaters was 1,903 million US dollars. In the subsequent calculation of the added value, an input-output table is used. The total production value of "movie theater" in the input-output table is based on the figures published by the Japan Filmmakers Federation, but not from the "Specific Services Industry Survey". Therefore, the former amount is used in this calculation.

3. Movie theater income from shops

   This revenue amount is calculated by converting (rebating) it into the box office revenue amount based on the composition ratio of the annual sales amount of each operation of "Movie Theater" ("2014 Survey on Specific Services Industry"). As a result, the revenue from movie theaters etc. is 483 million US dollars.

4. Income from movie theater services (production amount)

   This was calculated using the same methodology as in 3 above. Services were treated as advertising income (50%) and food services income (50%). The income (production) amount was 62 million US dollars.

5. Revenue from primary use

   Totaling revenue from each primary use sector yields 52,017 million US dollars.

Table 2-1 Income/revenue from primary use of movies (gross production)

Category	Revenue
1. Movie production/distribution	1,947
2. Theater box office income	1,903
3. Theater income from shops	483
4. Revenue from movie theater services	62
Total	4,395

(Source: Prepared by CDI) (Unit: million US dollar)

●Secondary use

1. Sales of movie software

Of the 2014 video software sales (Japan Video Software Association materials), Japanese, Western and Asian movies and animations were calculated. For animation, since the breakdown of theater and TV is unknown, the ratio of the number of theatrical movie titles and the number of TV animation titles was calculated from "Japan Animation Industry/Market Trends" by the Japan Animation Association. The total sales amount is 626 million US dollars.

2. Movie rental revenue

Calculated by apportioning movie content from the rental business of music and video recorded in "2012 Economic Census-Activity Survey". Specifically, music and video content are calculated based on the ratio of the total sales of Oricon music software, excluding music video software, to the video software rental/cell market estimate, and movie and animation rentals. The amount was divided by the ratio of movies and animations to the total sales of video software. The total amount is 634 million US dollars.

Table 2-2 Revenue or sales of secondary use of movies (total production)

Category	Revenue
1. Movie software revenue	626
2. Movie rental revenue	634
Total	1,261

(Source: Prepared by CDI) (Unit: million US dollar)

Based on the above, the total amount of sales for primary and secondary use is regarded as production value, and the total economic weight of movies is approximately 5,656 million US dollars. The breakdown is about 4,395 million US dollars for primary use from the production and distribution of movies to the performance in front of the camera, and about 1,261 million US dollars for secondary use of software sales and rentals. In addition, the broadcasting rights revenue for TV etc. in the secondary use is included in the sales amount of "1. Movie production/distribution" for the primary use.

Allocation to industrial sector

As shown in the table below, the production value of each sector of the movie domain was allocated to the industrial sector of the basic classification (516 × 395 sector table) of the 2014 extended input-output table.

Table 2-3 Allocation of movies to the industry sector

Category of movies	Industrial sector Basic classification (see: 37 categories)
Movie theaters	Movie theaters/cinemas (Personal services)
Movie shops	Retail (Commercial)
Movie theater services: advertising	Advertising (Business services)
Movie theater services: food	Food services (Personal services)
Movie production/distribution	Video/audio/text information production (Telecommunications)
Movie software sales	Video/audio/text information production (Telecommunications)
Movie rentals	Leasing of goods (excludes rental vehicles) (Business services)

(Source: Prepared by CDI)

Calculating cultural GDP

The cultural GDP was calculated using the input ratio of the industry to which each sector of the 2014 extended input-output table belongs. The results are as follows, and the cultural GDP of the movie is estimated to be about 2,298 million US dollars in total.

Table 2-4 Calculation of gross value added (GDP) for the movie industry

		Domestic production value	GDP (gross value added)
Movie theater	Movie theaters	1,903	552
	Movie shops	483	305
	Movie theater services	62	22
Movie production/distribution		1,947	758
Movie software sales		626	244
Movie rentals		634	405
Total		5,655	2,285

(Source: Prepared by CDI) (Unit: million US dollar)

2.3 Cultural GDP of “tea ceremony”

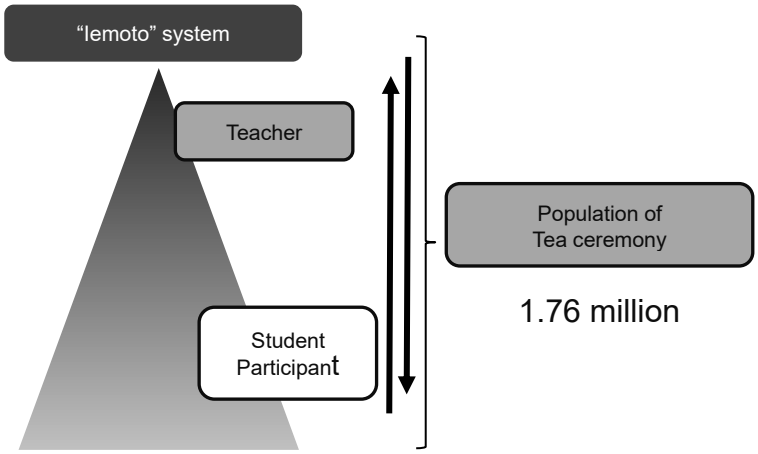
2.3.1 Calculation procedure

Definition of tea ceremony field

The tea ceremony ("Chado" or "Sado") was established in the 16th century by Sen-no-Rikyu. This example of traditional Japanese culture is still enjoyed by many Japanese people today. A full-fledged tea ceremony is associated with various cultural and art related items such as tools, tea rooms, tea gardens, hanging scrolls, etc., and it is said to be a “comprehensive” art. Even today, the tea ceremony is practiced and enjoyed. There are also various schools. There are two major activities related to the tea ceremony. One is to encounter tea ceremony culture by drinking tea. The second is to learn tea ceremony as a practice or culture. There are various forms and levels of encountering the tea ceremony, but eventually this takes the forms of teaching, learning, knowing about and experiencing the tea ceremony. In this study, the actual drinking of tea was excluded because that is classified under “food and drink”, and the tea ceremony as the latter, the cultural activity, was targeted.

In the world of tea ceremony, there are schools and “iemoto” systems, which are the core of the cultural activities of tea ceremony. There are professors and leaders under the “iemoto” system in each school, and these people often have a qualification given by the school in some way. In some schools, such a system based on the relation between teacher and students is called “syachu”, a kind of association. With the exception of enjoying tea individually, most persons involved in tea ceremony participate in various activities as a member of the association or in the role they have been licensed to fill. Basically, the “iemoto” system has a pyramid structure, and the people who comprise it are the “tea ceremony population”. The figure below shows a model of this.

Figure 2-4 The structure of contemporary tea ceremony



Source: Made by CDI based on “Survey on Time Use and Leisure Activities 2016” (Ministry of Internal Affairs and Communications)

Extraction of tea ceremony products

We conducted interviews with people who attend tea ceremony at several levels, and determined about 90 items of goods and servicess required or consumed in actual activities. The products vary widely and include related areas such as membership fees, tuition fees, powdered tea, Japanese sweets, tea utensils, and Japanese clothing, etc.

Identification of "the tea ceremony industry"

The next task is to identify the industrial sector that produces the determined tea ceremony products. The industrial sector was assigned to 98 integrated middle categories in the extended I-O table of 2015. For example, "membership fees", "tuition fees, training fees", etc. are allocated to "097 other personal services", "tea bowls", within the category of tea utensils, are allocated to "030 ceramics", and "tea whisks" are allocated to "010 wooden wares". "Transportation" is 70% for "072 railroad", 30% for "037 road passenger transport", "expenses for utilities" is "065 water" 25%, "063 electricity" 50%, "064 gas" 25%. The apportionment was made mainly based on the consumption rate from the "Family income and expenditure survey".

Calculation of consumption and production value of tea ceremony products

The sum of the consumption and production value of the extracted tea ceremony products corresponds to the consumption or production value of the tea ceremony products. But there is no such data. Therefore, a sample survey on consumption of tea ceremony products was conducted in a questionnaire. The questionnaire was conducted on the internet and was conducted for 979 men and women over the age of 20 who came in contact with the tea ceremony in some way over the past year. It asked about the annual consumption of the extracted tea ceremony products. For example, the survey results below show how values for each product, and sample values of annual consumption for each product, for people who come in contact with tea ceremony in some form, can be obtained.

Table 2-5 Example of annual consumption per person for tea ceremony products

Item of expenditure cost	Number of respondents (person)	Total monetary use of respondents (USD)	Amount per capita (USD)
Membership fee	364	34,193	34.9
Tuition, training fee	338	71,494	72.6
Various qualification cost	239	26,059	26.7
Social expensive (tea ceremony)	356	43,100	108.8
Beauty salon, dressing services	266	34,129	34.9
Transportation expensive	472	75,106	76.3
Book and magazine purchase costs, subscription fee	146	11,949	11.9
Book/magazine purchase costs, tea ceremony related book purchase costs	154	20,461	21.1
Supplies expense: powder tea	326	25,149	25.7
Supplies expense: Sweets	315	25,516	25.7
Supplies expense: tea ceremony dishes (include Japanese sake)	180	32,438	33.1
Supplies expense: incense	160	9,468	10.1
Total		837,536	856

Source: compiled by CDI

The result of the questionnaire is the "annual consumption per capita" of people who come in contact with the tea ceremony in one form. The annual consumption per person is US $ 856. Since Total consumption is calculated by multiplying the consumption per person by the total number of people, to calculate the total domestic consumption amount, it is necessary to calculate the "tea ceremony population (the total number of people who come in contact with tea ceremony in some way)" in one year. The tea ceremony population was estimated as follows.

Estimation of tea ceremony population

The tea ceremony population can be calculated by multiplying the total population by the tea ceremony participation rate. The tea ceremony participation rate can be obtained from “Survey on time use and leisure activities 2016” (Ministry of Internal Affairs and Communications). In this survey, 1.55% of those surveyed (10 years or older) are in contact with the tea ceremony in some way for more than one day a year. Multiply 113.3 million (persons 10 years old and over) by 1.55% (tea ceremony participation rate) is 1,761,000 participants.

Estimation of the total consumption of tea ceremony

The table below shows the total consumption of tea ceremony products based on the annual consumption of tea ceremony products and the estimated population of tea ceremony (1,761,000 people). The total consumption of tea ceremony products is estimated at approximately US $ 1,507 million.

Table 2-6 Estimated consumption by tea ceremony population

Item of expenditure cost	Average amount (USD)	Estimating the total amount based on the tea ceremony population (million USD)
membership fee	34.9	61.5
tuition, training fee	72.6	128.6
various qualification cost	26.7	46.9
social expensive (tea ceremony)	44.1	77.5
beauty salon, dressing services	34.9	61.4
transportation expensive	76.3	135.1
book and magazine purchase costs, subscription fee	11.9	21.5
tea ceremony related book purchase costs	21.1	36.8
supplies expense: powder tea	25.7	45.2
supplies expense: sweets	25.7	45.9
supplies expense: tea ceremony dishes	33.1	58.3
supplies expense: incense	10.1	17.0
supplies expense: flower	17.5	30.7
supplies expense: kaishi	4.6	8.6
supplies expense: kuromoji (chopstics), etc.	3.7	6.4
supplies expense: charcoal	5.5	9.7
supplies expense: utility cost	11.0	19.9
supplies expense: tea towel, towel, rag	4.6	7.9
supplies expense: paper towel, tissue, etc.	3.7	6.1
supplies expense: detergents	3.7	6.9
Supplies expense: other consumables (cosmetics, etc.)	5.5	9.5
tea things: bowl	25.7	45.0
tea things: tea whisk	9.2	16.4
tea things: tea scoop	7.4	13.4
tea things: sifter	6.4	11.9
tea things: tea caddy	9.2	15.6
tea things: pouch for holding a tea caddy	6.4	11.5
tea things: tea container	11.9	21.8
tea things: small silk wrapper	5.5	9.3
tea things: small bag for kaishi	5.5	9.6
tea ceremony related: kettle	9.2	16.6
tea ceremony related: chain	1.8	3.8
tea ceremony related: teakettle	2.8	5.0
tea ceremony related: hearth	2.8	4.2
tea ceremony related: futaoki	0.9	2.2
tea ceremony related: tea ladle stand	1.8	3.4
tea ceremony related: yunoko	1.8	2.5
tea ceremony: waste water container	2.8	4.3
tea ceremony: hot water bowl	1.8	2.5
tea ceremony: water jug	3.7	6.6
tea ceremony: basket,etc	1.8	2.4
tea ceremony: gotoku	0.9	1.8
tea ceremony related: box for charcoal	1.8	2.7
tea ceremony related: hibashi(tongs)	0.9	2.2
tea ceremony related: basket for charcoal	0.9	1.9
tea ceremony related: feather	0.9	2.2
tea ceremony related: ash hoe	0.9	1.6
tea ceremony related: nagaita for hearth	1.8	3.8
tea ceremony related: incense container	1.8	3.6
tea ceremony related: shikiita, etc	0.9	2.1
tea ceremony related: chatu-bako	1.8	2.9

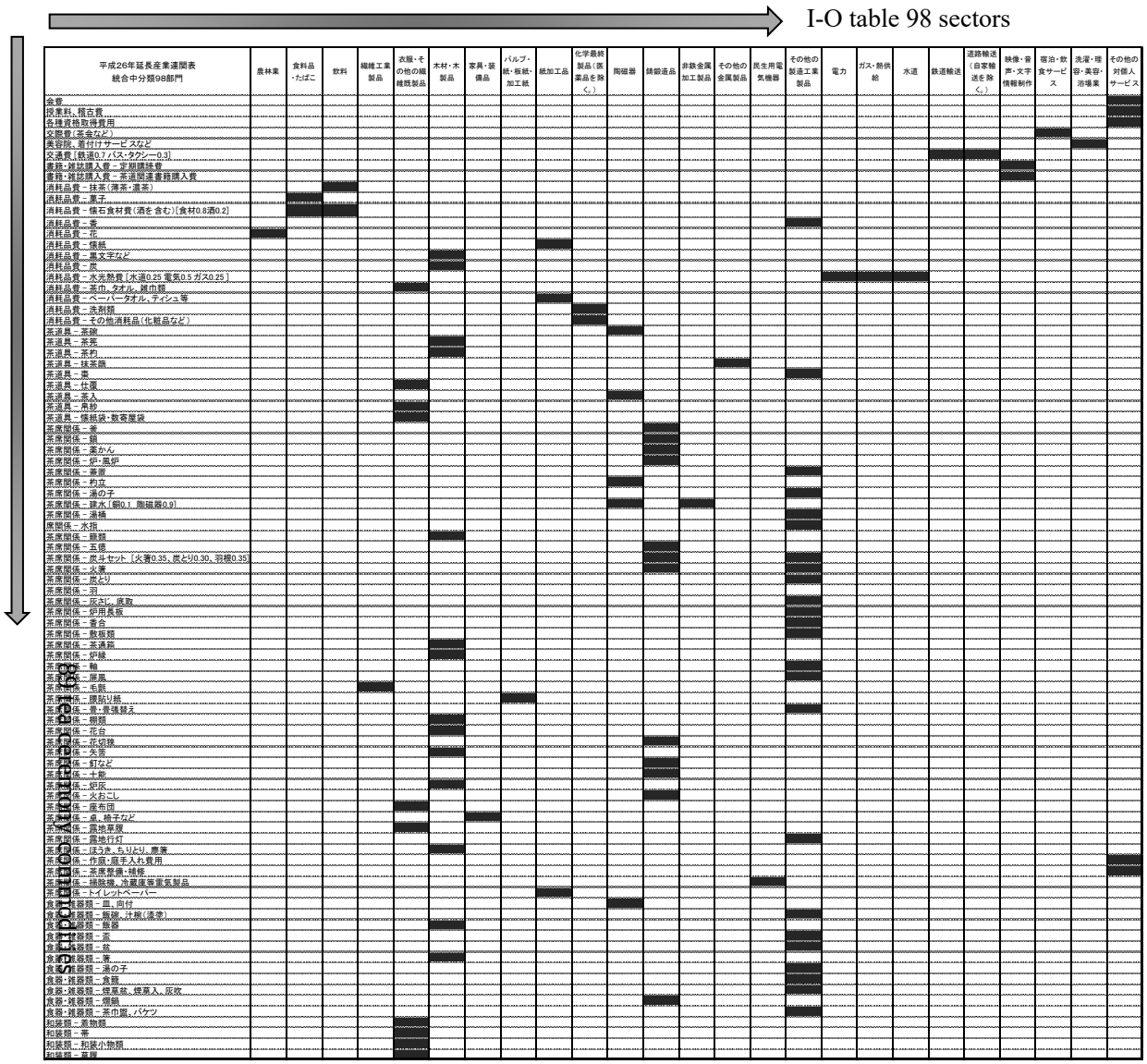
Item of expenditure cost	Average amount (USD)	Estimating the total amount based on the tea ceremony population (million USD)
tea ceremony related: flame of hearth	1.8	2.6
tea ceremony related: hanging scroll	10.1	17.7
tea ceremony related: folding screen	2.8	5.2
tea ceremony related: rug	1.8	2.5
tea ceremony related: wainscot paper	0.9	1.8
tea ceremony related: tatami	3.7	6.7
tea ceremony related: shelf, etc.	1.8	3.0
tea ceremony related: flower stand	2.8	4.1
tea ceremony related: flower-cutting scissors	0.9	2.4
tea ceremony related: yahazu	0.9	1.3
tea ceremony related: nail, etc.	0.9	1.3
tea ceremony related: fire shovel	0.9	1.3
tea ceremony related: ash for hearth	1.8	3.1
tea ceremony related: hiokoshi	0.9	1.7
tea ceremony related: cushion	1.8	2.6
tea ceremony related: table, chairs, etc.	0.9	1.7
tea ceremony related: Japanese sandals for garden	0.9	2.1
tea ceremony related: paper-flamed lamp for garden	0.9	1.6
tea ceremony related: broom, dustpan	0.9	1.2
tea ceremony related: gardening expense	3.7	6.0
tea ceremony related: tea room building	1.8	3.4
tea ceremony related: vacuum cleaner, refrigerator	1.8	3.8
tea ceremony related: toilet paper	0.9	2.0
tableware, miscellaneous goods: dish, plate, etc.	7.4	12.2
tableware, miscellaneous goods: bowl for rice and soup	7.4	12.5
tableware, miscellaneous goods: rice container	3.7	7.0
tableware, miscellaneous goods: glass	2.8	5.1
tableware, miscellaneous goods: tray	2.8	5.6
tableware, miscellaneous goods: chopsticks	1.8	4.0
tableware, miscellaneous goods: yunoko	2.8	4.4
tableware, miscellaneous goods: basket for food	2.8	5.4
tableware, miscellaneous goods: tobacco tray, etc.	2.8	4.3
tableware, miscellaneous goods: kettle for sake	3.7	6.3
tableware, miscellaneous goods: bucket for tea towel	1.8	3.2
kimono: kimono, etc.	105.7	186.6
kimono: obi(belt)	32.2	56.8
kimono: small articles for kimono	12.9	22.0
kimono: Japanese sandals	10.1	17.7
Total	855.8	1506.4

Source: compiled by CDI

Allocation to industrial sector

At the time of specific work on the tea ceremony industry, work had already been done to link tea ceremony products and industry. The amount of production for each industry was calculated by applying the amount of consumption for each product calculated in “Estimation of consumption by tea ceremony population” to this allocation table. The masked cells represent the allocation destination.

Table 2-7 Allocation table of tea ceremony activity consumption to production areas



Note: The masked cells represent the allocation destination

Source: compiled by CDI

Estimation of cultural GDP of tea ceremony

The production value was calculated by multiplying the consumption related to the tea ceremony allocated to each industry by the inverse matrix coefficient (open type) of the 2015 extended I-O table, and each value was calculated by multiplying this by the VA ratio. The sum of the VA calculated here is regarded as the tea ceremony culture VA. The estimation results are as follows.

- tea ceremony consumption US $1,507 million
- tea ceremony related production value US $2,155 million
- tea related VA US $1,120 million

Table 2-8 Estimation of VA of tea ceremony (major items only)

(Unit :1000USD)

	Consumption of tea ceremony	Tea ceremony related domestic demand	Tea ceremony related products	VA
001 agriculture, forestry	30.7	13.7	39.4	18.4
006 food, tobacco	92.6	45.0	74.9	23.2
007 beverage	56.9	32.0	39.7	19.6
009 wearing apparel and other	326.1	38.2	39.9	13.8
010 lumber and wooden products	77.8	22.9	30.8	10.6
011 wooden products	16.7	8.6	18.8	6.4
012 pulp, paper, etc.	1.8	0.6	18.2	3.6
022 final chemical products	16.4	5.8	17.1	4.3
030 ceramic wares	86.2	28.7	29.2	12.0
034 casting and forging products	47.3	34.9	35.9	12.8
039 miscellaneous metal products	11.9	6.0	18.0	7.6
057 other manufactured goods	135.0	74.3	80.3	26.9
063 electricity	9.9	9.9	60.0	9.5
064 gas	5.0	5.0	15.3	3.7
065 city water	5.0	5.0	14.2	6.2
067 commerce	0.0	404.9	484.8	317.6
068 financial services and insurance	0.0	0.0	37.7	24.1
069 real estate and rent	0.0	0.0	37.9	23.9
072 railroad	94.6	94.2	100.5	66.2
073 road transport	40.5	57.2	76.3	52.7
082 information services	0.0	0.0	18.9	11.2
084 video / audio / text work	58.3	30.3	44.0	16.6
090 renting and leasing services	0.0	0.0	21.2	13.8
091 advertising	0.0	0.0	18.9	5.3
092 motor vehicle repairs	0.0	0.0	21.8	8.3
093 other business services	0.0	0.0	69.8	50.3
094 hotel and drinking eating place	77.5	77.5	78.6	33.7
094 laundry, barber and beauty shop	61.4	61.4	63.7	40.8
097 other personal services	246.3	246.3	249.9	171.3
total	1506.4	1307.4	2155.9	1120.5

Source: compiled by CDI

Note1: Tea ceremony-related consumption was allocated to each industry. Multiply this by the commercial margin and freight rates to convert to producer prices. Next, the domestic demand was calculated by multiplying the self-sufficiency rate. In addition, the production value was calculated by multiplying this result by the inverse matrix coefficient (open type) of the 2014 extended input-output table.

Note2: Multiply the VA rate to calculate added value.

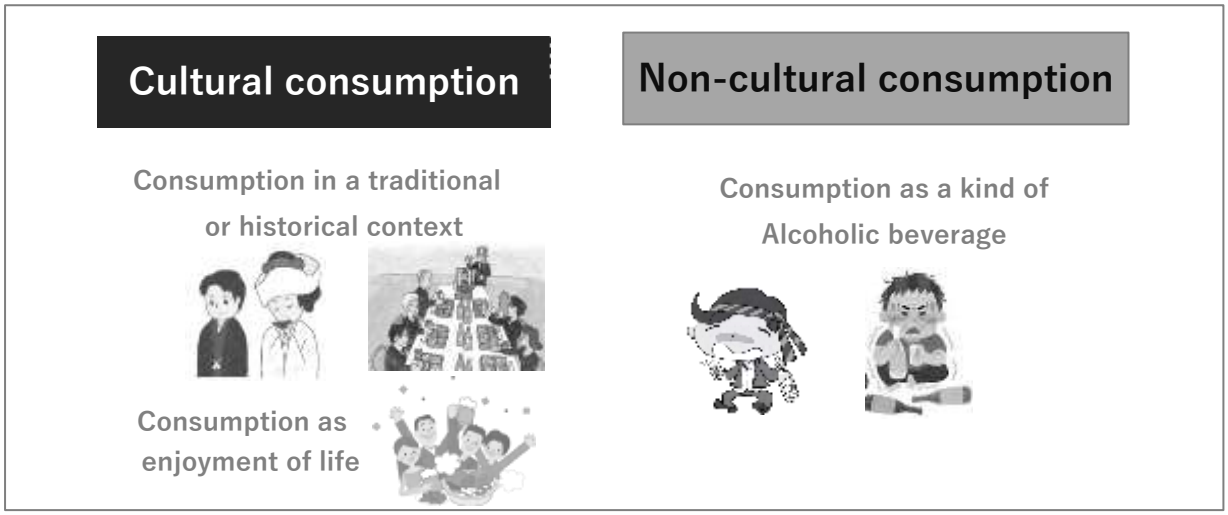
2.4 Cultural GDP of Japanese sake

2.4.1 Calculation procedure

Definition of Japanese sake

Sake is a traditional Japanese liquor. Sometimes, sake is consumed as a drink (alcoholic beverage), and, sometimes, is consumed in the historical and traditional social context. In addition, it is consumed for enjoyment and entertainment as a kind of lifestyle. By this definition, the latter two cases are positioned as “cultural consumption of Japanese sake”, and this is called “Japanese sake culture”.

Figure 2-5 Types of sake consumption and cultural consumption



Source: compiled by CDI

Extraction of products in the cultural consumption of sake

The products consumed in the area of cultural consumption of sake are the sake itself and related products. Related products include manufactured goods (goods) such as liquor and food items such as “sake no sakana”, and services in pubs, weddings, and other venues. There are two types of consumption: consumption at home and outside the home. As described above, cultural consumption / general consumption is determined by context, or the attitude/awareness to the beverage of the person who drinks it. Here, the cultural product is set as follows.

i) Consumption at home: Consumption by consumers with cultural awareness of private consumption of sake. (non-public drinking)

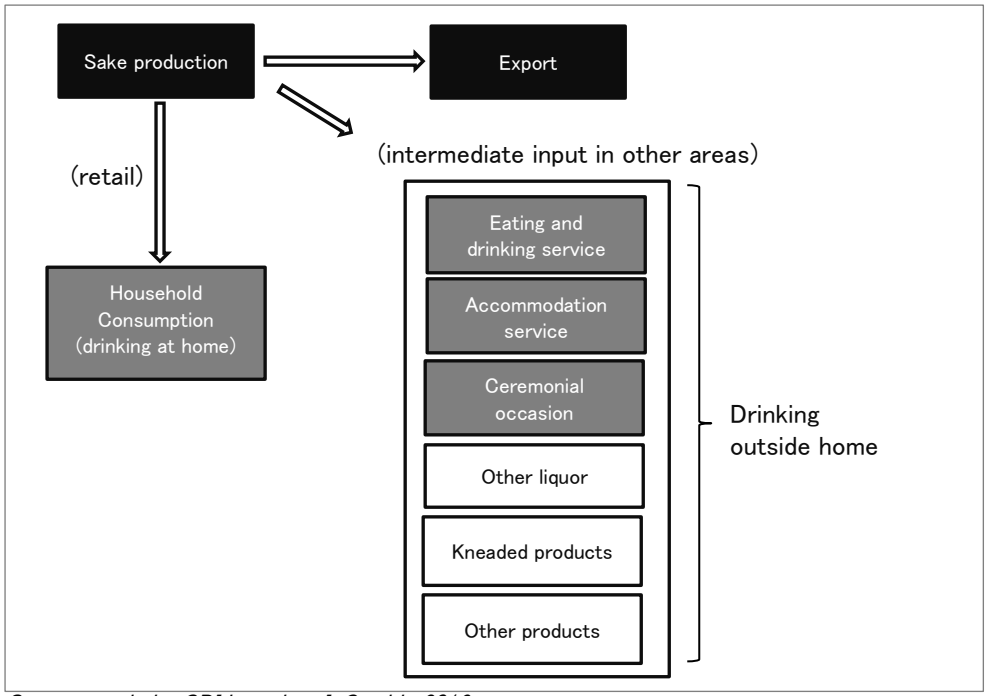
ii) Consumption outside the home: sake and related services consumed at pubs, restaurants, wedding halls, etc. (public drinking)

Identification of “the Japanese sake culture industry”

Sake is the core product of the cultural consumption of sake. Therefore, when looking at the trade structure of sake in the industry I-O table 2015 (extended table), the transaction structure is as shown below. With reference to this

transaction structure, it can be seen that the main sectors of sake related to cultural consumption are “sake production”, “sake retail”, “eating and drinking services”, “accommodation services” and “ceremonial occasions”. However, consumption of such items as “sake ware” and “sake lees” are not included in household consumption.

Figure 2-6 “Cultural consumption of sake” transactions



Source: made by CDI based on I-O table 2016

Calculation of consumption value of “cultural Japanese sake”

Here, the basic classification of the 2015 extended I-O table (516 × 395 division table, nominal value: 2016 price) is used. According to it, the domestic demand for sake is about US $ 3,033 million. Of this, US $ 1,655 million is household consumption (drinking at the home), and US $ 1,011 million is intermediate input (raw material costs) of other industries.

Table 2-9 Sake production and transaction structure based on 2015 extended I-O table

Intermediate input						
672101 eating and drinking services	671101 accommodation services	112109 other liquor	111304 kneaded products	679902 ceremonial occasions	111602 agricultural preserved food	111705 seasoning
845	144	17	15	11	8	4

Intermediate input						
111309 other seafood	111303 bottled and canned seafood	69100 unclassified	111302 salted, dried and smoked products	111601 bottled and canned agricultural preserved food	085 government	7000 total of endogenous sector
3	3	2	0.2	0.02	0.1	1,053

711100 consumption outside the household	721100 household consumption	098 other	7900 total of domestic demand
312	1,687	11	3,062

(Unit :M USD)

Source: Made by CDI based on the 2016 expended input-output table

Next, calculate the amount of sake consumption and cultural VA using the following methods:

i) Among the input areas, those that are raw materials for other products (other alcoholic beverages, kneaded products, etc.) are excluded from cultural consumption.

ii) For “672101 eating and drinking services”, “671101 accommodation services” and “679902 ceremonial occasions”, the total demand for the consumption of sake is apportioned by the proportion of sake in the intermediate inputs.

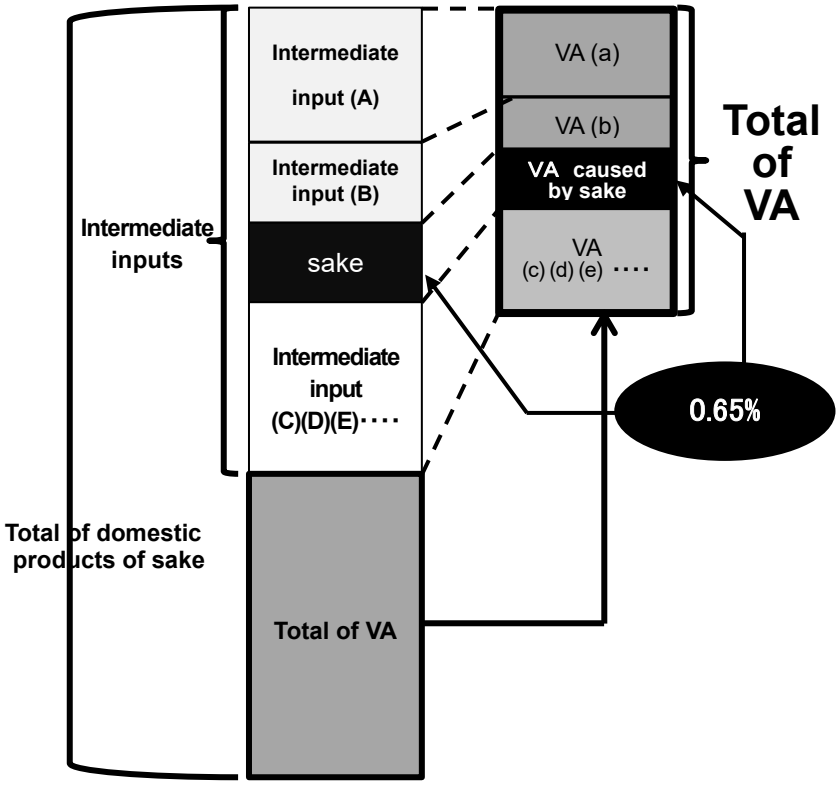
iii) Of the consumption calculated by apportioning the consumption of sake, “672101 eating and drinking services”, “671101 accommodation services” and “679902 ceremonial occasions” (consumption outside the home) are considered types of cultural consumption. The total consumption of this sector is cultural consumption.

iv) For “non-public consumption” (consumption in the home), calculate the ratio of cultural consumption using the questionnaire.

Questionnaire, value added ratio and cultural consumption

The questionnaire was conducted to calculate the ratio of cultural consumption. Details are given in the annex. According to this survey, 85.8% of sake consumption is “cultural consumption”. On the other hand, in addition to the sake manufacturing industry, there are “6712 eating and drinking services”, “6711 accommodation services” and “6799021 ceremonial occasions” as related sectors. In these areas, in addition to alcoholic beverages, various ingredients and facilities are used as raw materials (intermediate inputs) in providing the services. Also, consumers purchase alcoholic beverages other than Japanese sake (beer, wine, etc.) Therefore, it is necessary to extract (apportion) the VA produced by sake in these industrial sectors. As the extraction (apportionment) method, the following work was performed assuming that VA was produced at the same rate as the ratio of sake in the intermediate input of each area. From the above, the VA ratio of sake in these three categories outside home consumption is calculated.

Figure 2-7 Apportionment method for VA of sake in eating and drinking services



Source: made by CDI

Table 2-10 Intermediate input ratio of sake consumption outside the home related sectors

	672101 eating and drinking services	671101 accommodation services	679902 ceremonial occasions
Total of domestic product (M USD)	231,885	44,628	27,109
Intermediate input (M USD)	129,815	23,458	12,075
Intermediate input of sake (M USD)	845	144	11
Ratio of sake in intermediate input	0.00651	0.00612	0.00092
Domestic production amount for sake (M USD)	1,510	273	25

Source: made by CDI

With the previous culture ratio of sake production added, the total cultural consumption (production value) of sake is about US $ 4,517 million as shown in the table below.

Table 2-11 Domestic production by cultural consumption of sake (Unit :M USD)

112101 sake industry	672101 eating and drinking services	671101 accommodation services	679902 ceremonial occasions	total
2,710	1,510	273	25	4,517

Source: made by CDI

Allocation to industrial sector

Already, four divisions of “112101 sake industry”, “672101 eating and drinking services”, “671101 accommodation services”, ”679902 ceremonial occasions” are assigned as industrial sectors related to “sake culture”.

Cultural GDP of Japanese sake

The VA related to the sake culture of the above four sectors, the total of VA of sake culture, is US $ 1,987 million.

Table 2-12 Calculation of VA by cultural consumption of sake (Unit :M USD, 2014 price)

	112101 sake industry[7]	672101 eating and drinking services	671101 accommodation services	679902 ceremonial occasions
A. Amount of domestic products	3,157	231,885	44,904	27,109
B. Amount of intermediate input of sake	－	845	144	11
C. Ratio of sake in intermediate	－	0.00651	0.00612	0.00092
D. Consumption expenditure outside households	－	3,777	1,093	715
E. Consumption of sake in consumption expenditure outside households	－	25	7	0.7
F. Input of sake + consumption expenditure outside households[8]	－	870	150	12
G. Total of VA	1,652	98,292	20,077	14,318
H. Sake for the VA sector	1,652	640	123	13
J. Sake for the VA sector (exclude sake lees and mirin)(×0.90518)[9]	1,495	579	1,113	－
K. Ratio of cultural consumption	0.85831	1	1	1
L. Cultural value added of sake	1,283	580	11	13
M. Total	1,987			

[7] The domestic production value of sake is US$ 3,157 million. The VA is US$ 1,652 million, excluding intermediate input of US$ 1,505 million. In addition, this intermediate input includes consumption expenditure outside households that is included in the VA sector in the I-O table. This is a measure to ensure consistency with the SNA. In this trial calculation, consumption expenditure outside households was treated similarly to that of other sector.
The domestic production value and VA sector of sake include not only sake but also sake lees and mirin, which are not separated in the I-O table. Therefore, the production value of sake and sake lees and mirin are separated from each other in the “Industrial Statistical Table 2014”. The ratio of refined sake minus sake lees and mirin is 0.90518. By multiplying this, the VA of sake production alone is considered to be US$ 1,495 million.
According to the questionnaire, the cultural consumption ratio of sake is 0.85831. When this ratio is multiplied by the VA, US$ 1,283 million is calculated as the cultural VA of sake based on the cultural consumption of sake.

[8] Consumption expenditure outside the households is regarded as the endogenous sector. The amount of sake consumed outside households is allocated to the amount of sake consumed by each industrial sector.

[9] 0.90518: The ratio excluding sake lees and mirin calculated from “Industrial Statistical Table 2014”. This excludes ceremonial services.

2.5 Cultural GDP by Matsue Castle National Treasure Designation Effect

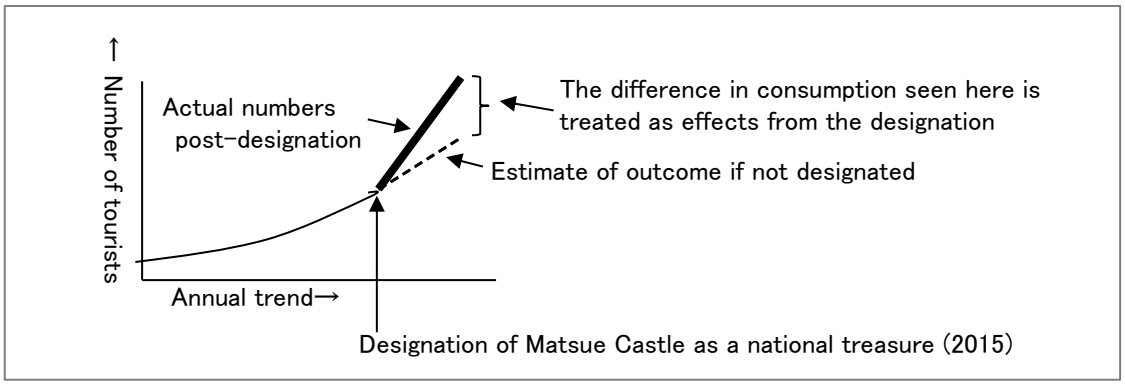
2.5.1. Stage 1

Defining the economic effects of the national treasure designation

Matsue Castle (more precisely, the Donjon (keep) of Matsue Castle) was designated as a national treasure in July 2015. The resulting economic effects are mainly seen in the tourism area. Before and after national treasure designation, grasp what kind of changes have occurred in the tourism area, and quantify those changes economically. This measures the policy effects of cultural and fiscal measures as cultural GDP. Specifically, the definition is as follows.

(1) Changes in the tourism sector are expressed through increase or decrease in the number of tourists. Therefore, we treated the change in number of tourists to Matsue Castle before and after its designation as a national treasure as the economic effect from the designation.
(2) Consumption within the region by the additional number of tourists was treated as an economic effect.
(3) However, this is not meant to imply that all increases in tourists following the designation of Matsue Castle as a national treasure are the result of the designation. The number of tourists to Matsue City proper is on an upward trend, so we excluded those numbers representing this upward change in order to isolate the effect strictly from the designation as a national treasure.

Figure 2-8 Summary image of economic effects of designation of Matsue Castle as a national treasure



Source: Made by CDI

Identification of commodities

The increased consumption of Matsue Castle visitors will be the product of economic effects associated with the Matsue Castle National Treasure designation. This consumption content is the same as the consumption classification used in the tourism statistics and tourism satellite account (TSA).

Definition of Japan in Tourism Statistics (Definition in Travel and Tourism Consumption Trend Survey)

○ Tourism: Travel to extraordinary areas regardless of leisure, recreation, business, etc.
○ Accommodation trips: All trips other than at home for at least one night.
○ Day trips: One-way travel distance of 80 km or more, or total travel time and stay time (the required time) travel to extraordinary areas is 8 hours or more.

The following are set as commodities consumed as defined above. The survey uses these categories.

Table 2-13 Definition in Travel and Tourism Consumption Trend Survey (Japan Tourism Agency)

Major item	Minor item (examples)
1. Transit expenses	Rail, bus, taxi, car rental, fuel costs, etc.
2. Accommodation expenses	Inns, hotels, campgrounds, etc.
3. Meal expenses	Meals, cafes, alcohol, etc.
4. Entertainment and other services fees	Museums, aquariums, exhibits, sporting events, etc.
5. Shopping	Sweets, agricultural and marine products, ceramics, glass products, etc.
6. Miscellaneous	Postal, courier, and communications fees, etc.

Source: prepared by CDI based on questionnaire forms from Travel and Tourism Consumption Trend Survey (Japan Tourism Agency)

Identification of industries

Similarly, the national Tourism Satellite Account applies the above product categories to the industrial sectors below. Our research made reference to the elements below while conforming to the categories in the input-output tables.

Table 2-14 Details of tourism industries (based on Tourism Satellite Account by Japan Tourism Agency)

Tourism industries	Lodgings/accommodations, private villas (imputed rent), food and beverage, passenger rail transport, passenger road transport, water transport, air transport, other transport, sports, leisure
Non-tourism industries	Categories not covered above

Source: prepared by CDI based on industrial TSA categories listed in Survey of Economic Effects in Travel/Tourism Industries (Japan Tourism Agency)

2.5.2 Stage 2

Calculation of consumption/production amounts

The tourism unit price and expense breakdown for tourists in Matsue City are as follows. This consumption is regarded as the consumption of Matsue Castle tourists, and is used as the basis for calculating consumption and production due to economic effects.

Table 2-15 Consumption unit price and item breakdown for tourism consumption in Matsue City (2015)

	Travelers within prefecture		Travelers from outside of prefecture	
	Overnight stay	Day trip	Overnight stay	Day trip
Transit expenses	28.8	8.9	20.7	11.4
Accommodation expenses	78.5	0.0	115.9	0.0
Souvenir expenses	5.5	6.7	37.9	25.5
Dining expenses	34.7	12.0	41.6	28.1
Admission fees	2.4	3.9	10.1	4.3
Miscellaneous	4.6	0.7	17.3	0.9

(Source: produced by CDI based on Matsue Tourism Survey 2015) (Units: USD. Amount converted at 2015 exchange rate)

Table 2-16 Consumption unit price and item breakdown for tourism consumption in Matsue City (2016)

	Travelers within prefecture		Travelers from outside of prefecture	
	Overnight stay	Day trip	Overnight stay	Day trip
Transit expenses	7.7	6.0	22.4	10.9
Accommodation expenses	126.7	0.0	160.3	0.0
Souvenir expenses	35.5	9.7	46.6	23.8
Dining expenses	33.5	18.8	50.7	23.0
Admission fees	4.2	5.1	13.8	8.7
Miscellaneous	23.1	4.1	12.9	4.8

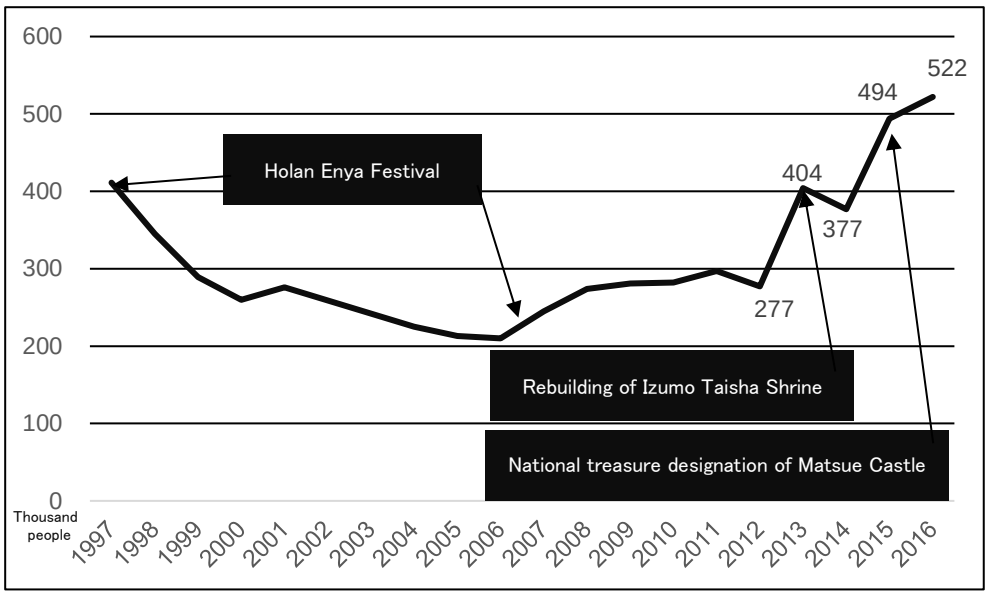
(Source: produced by CDI based on Matsue Tourism Survey 2015) (Units: USD. Amount converted at 2016 exchange rate)

Next, the increase in the number of tourists in Matsue Castle, designated as a national treasure, is estimated. In the long term, the number of tourists at Matsue Castle has been on a downward trend for almost 10 years since the 1997 Holan Enya Festival[10] was held. The last ten years saw tourism halved from about 400,000 to about 200,000. However, the 400-year commemorative efforts of establishment of government in Matsue began in 2006, and in 2007, the Holan Enya Festival was held. After that, tourism continued to increase due to the effects of rebuilding the Izumo Taisha Shrine and improvements around Matsue Castle. The designation of Matsue Castle as a National Treasure in July 2015 continued, and now the number of tourists exceeds 500,000.

Although the number of tourists in Matsue Castle has fluctuated, the overall number of tourists visiting Matsue City has not changed significantly. In fact, it has shifted from flat to increasing. In Matsue City as a whole, it is speculated that the recent increasing trend is influenced by the Holan Enya Festival, rebuilding of Izumo Taisha Shrine, and Matsue Castle National Treasure designation effects.

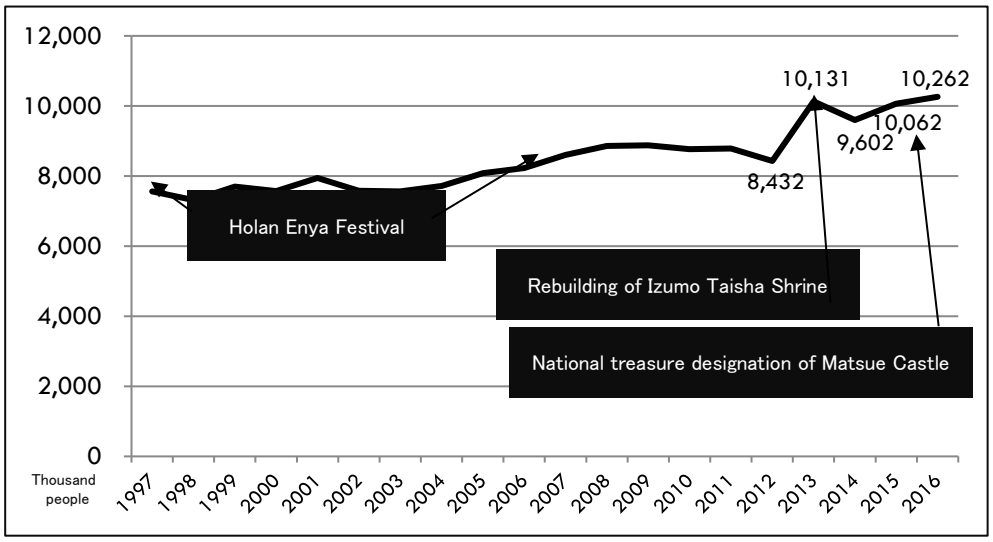
[10] Traditional festival of Matsue. Held once every 10 years.

Figure 2-9 Trends in number of tourists to Matsue Castle



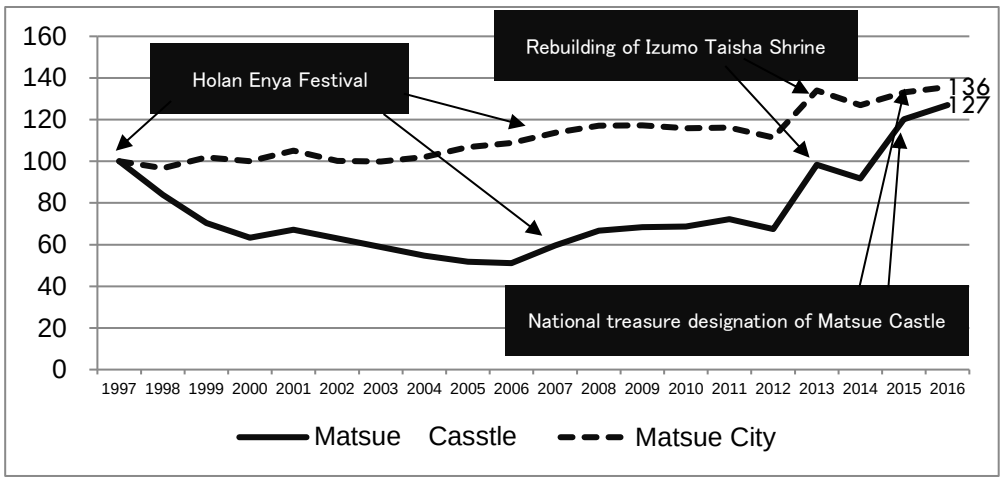
Source: prepared by CDI based on annual tourism white papers from Matsue City

Figure 2-10 Trends in number of tourists to Matsue City (total number)



Source: prepared by CDI based on annual tourism white papers from Matsue City

Figure 2-11 Trends in number of tourists to Matsue Castle and Matsue City (treating 1997 as 100)

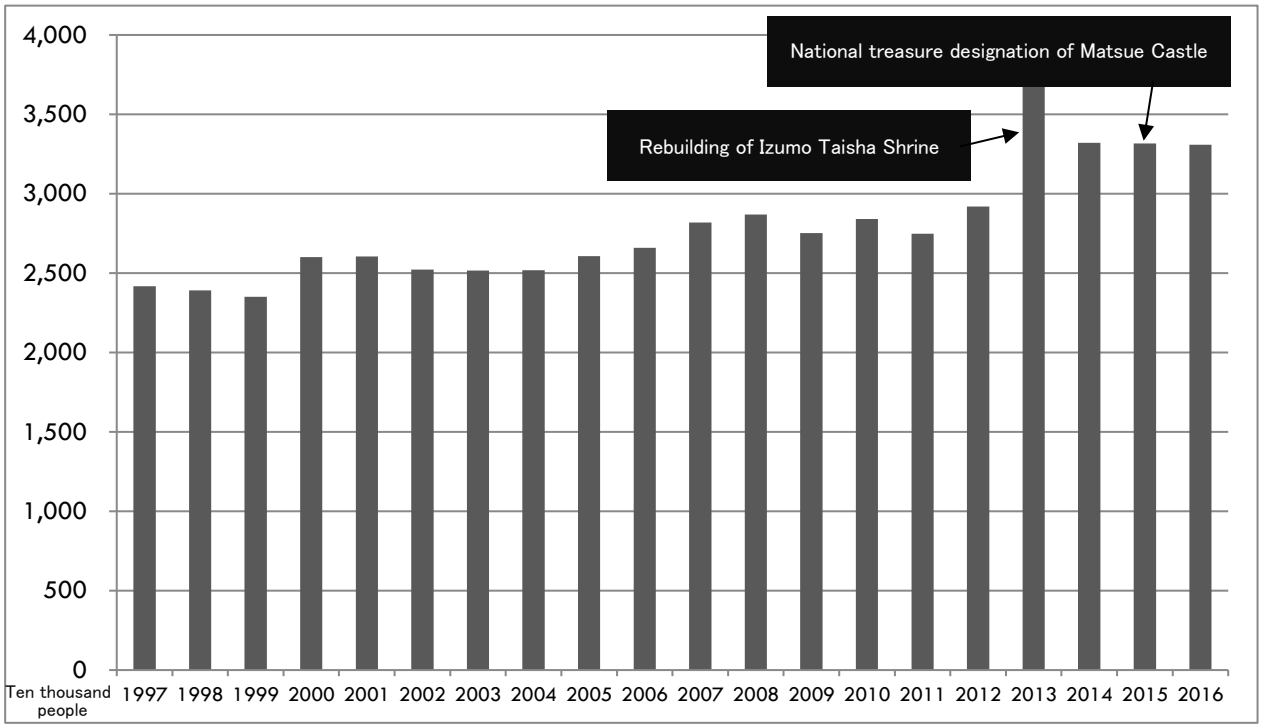


Source: prepared by CDI based on annual tourism white papers from Matsue City

The year-on-year increase in the number of tourists in Matsue Castle and Matsue City in 2015 was 31.0% and 4.8%, respectively. The increase in the number of tourists at Matsue Castle is considered to be a national treasure designation effect. In 2016, the growth rates for the previous year were 5.7% for Matsue Castle and 2.0% for Matsue City. The national treasure designation effect seems to continue in this year. On the other hand, the change in the number of tourists in Shimane Prefecture reached its maximum in the year of the rebuilding of Izumo Taisha Shrine, and has since declined.

From the above, it can be considered that the transition in the number of tourists due to the designation of Matsue Castle as a national treasure is mainly reflected in the transition in the number of tourists in Matsue Castle itself. Therefore, it can be considered that the effects of national treasure designation can be measured by comparing the changes in the number of tourists in Matsue Castle before and after the national treasure designation.

Figure 2-12 Trends in number of tourists to Shimane Prefecture



Source: produced by CDI based on Shimane Prefecture Tourism Survey

Specifically, the transition in the number of tourists when Matsue Castle was not yet designated as a national treasure, in 2015, was predicted, and the difference in the number of tourists between the predicted value and the real number is regarded as an increase due to the effect of Matsue Castle National Treasure designation. Since the Matsue Castle National Treasure designation occurred in July 2015, the increase in the number of tourists in Matsue Castle in 2015 was assumed to show the effect of national treasure designation, and a hypothetical number of Matsue Castle tourists, assuming no national treasure designation, was predicted.

Visitors to Matsue Castle introduced a positive event dummy and a negative event dummy at the same time as estimating with time trends. The positive event dummies are the imagined increase in tourists due to the influence of the Horan Enya Festival in 1997 and 2010, and the influence of the Izumo Taisha Shrine in 2013 and 2014. The negative event dummies are from 2004 to 2006 The number of tourists has decreased or leveled off due to a sluggish period in domestic tourism demand and heavy snowfall in Shimane prefecture.

The estimation formula was as follows.

Estimated number of tourists visiting Matsue Castle
＝230.759 + 5.412 × time trend + 139.123×event dummy - 63.470× negative event dummy

The ***t*** values for the coefficients are 9.267, 2.601, 4.002, and -2.581, respectively, and all estimates are significant at the 5% significance level. As a result of the estimation, the predicted values were 334,000 in 2015 and 339,000 in 2016, and the difference from the real numbers was 160,000 and 183,000, respectively. The total difference of 33,000 people over the past two years is considered to be an increase in the number of designated national treasures. The economic effect is quantified by multiplying this tourist increase by tourism consumption.

Table 2-17 Calculating the effect on tourist numbers of Matsue Castle national treasure designation (increase in number of tourists)

	Matsue Castle (Actual number)	Matsue Castle (Estimated number)	Increase
1997	411		
1998	345		
1999	289		
2000	260		
2001	276		
2002	259		
2003	242		
2004	225		
2005	213		
2006	210		
2007	245		
2008	274		
2009	281		
2010	282		
2011	297		
2012	277		
2013	404		
2014	377		
2015	494	334	160
2016	522	339	183

Source: produced by CDI based on Shimane Prefecture Tourism Survey etc. (Units: 1,000 people)

Based on the "Matsue City Tourism Movement Survey" in 2015 and 2015, we estimate the breakdown of the increase in the number of visitors to Matsue Castle in 2015 and 28 as follows.

Table 2-18 Estimated breakdown, number of tourists to Matsue Castle (2015-2016) (Units: people)

Category				2015	2016
Number of tourists visiting Matsue Castle	Increased by			160,000	183,000
	Breakdown	Overnight tourists	Travelers from within the prefecture	1,216	1,281
			Travelers from outside the prefecture	48,608	59,658
		Day trip tourists	Travelers from within the prefecture	32,608	40,809
			Travelers from outside the prefecture	77,568	81,252
Proportion of tourists visiting Matsue Castle	Increased by			100.0%	100.0%
	Breakdown	Overnight tourists	Travelers from within the prefecture	0.8%	0.7%
			Travelers from outside the prefecture	30.4%	32.6%
		Day trip tourists	Travelers from within the prefecture	20.4%	22.3%
			Travelers from outside the prefecture	48.5%	44.4%

Source: produced by CDI based on Matsue Tourism Survey 2015/2016

By using the breakdown ratio of the increased number of tourists, an increase in consumption by the increased number of tourists is calculated.

Table 2-19 Increased consumption from designation as national treasure (2015) (Units: thousand USD)

	Travelers from within prefecture		Travelers from outside of prefecture		Total
	Overnight tourists	Day trip tourists	Overnight tourists	Day trip tourists	
Transit expenses	35	289	1,006	884	2,214
Accommodation expenses	96	0	5,633	0	5,729
Souvenir expenses	7	219	1,840	1,979	4,045
Dining expenses	42	391	2,021	2,181	4,635
Admission fees	3	127	489	332	951
Miscellaneous	6	24	842	69	941
Total	188	1,050	11,831	5,445	18,514

Source: produced by CDI

Note: Due to rounding, totals may not match.

Table 2-20 Increased consumption from designation as national treasure (2016) (Units: thousand USD)

	Travelers from within prefecture		Travelers from outside of prefecture		Total
	Overnight tourists	Day trip tourists	Overnight tourists	Day trip tourists	
Transit expenses	10	245	1,334	887	2,476
Accommodation expenses	162	0	9,561	0	9,723
Souvenir expenses	45	395	2,781	1,931	5,151
Dining expenses	43	769	3,024	1,866	5,701
Admission fees	5	209	824	710	1,748
Miscellaneous	30	165	771	388	1,354
Total	296	1,783	18,294	5,781	26,154

Source: produced by CDI

Note: Due to rounding, totals may not match.

Source: produced by CDI

Note: Due to rounding, totals may not match.

As shown in the table above, increased touristic consumption resulting from the designation of Matsue Castle as a national treasure was, in 2015, when the castle was first designated, approximately 18.5 M USD, and in 2016, 26.1M USD, for a combined total over two years of approximately 44.6M UDS.

Allocation to specific industries

This tourism consumption will correspond to the 32 sectors of the 2011 Shimane Input-Output Table[11]. The souvenir costs are divided into "food and beverages" such as Japanese confectionery and "other manufactured industrial products" such as Yakumo Nuri (traditional lacquered product) and agate work. The ratios in each category are 80% and 20%. This ratio is estimated from the ratio of products sold at tourist stores around Matsue Castle.

Table 2-21 Application of touristic consumption items to sectoral categories in input-output table

	Sector
Transit expenses	Transport/postal
Accommodation expenses	Personal services
Souvenir expenses	Food products (80%), other manufactured products (20%)
Dining expenses	Personal services
Admission fees	Other non-profit services
Miscellaneous	Personal services

Source: produced by CDI

[11] The latest at the time of this survey.

Cultural GDP caused by the Matsue Castle National Treasure designation effect

The increase in new consumption in the region due to the Matsue Castle National Treasure designation effect was approximately 5,090 million yen in the two years of 2015 and 2016. Since this amount is consumption, it is allocated to the production sector using the prefecture self-sufficiency rate, the inverse matrix coefficient table, etc. of the input-output table.

As a result, the new GDP designation of Matsue Castle National Treasure is estimated to be about 10.5 million US dollars in 2015 and about 15.1 million US dollars in 2016, with a total of about 25.6 million US dollars for two years. This creates 726 new jobs in two years.

Table 2-22 New GDP resulting from designation of Matsue Castle as a national treasure (Units: M USD)

	2015	2016	2015-2016 total
Production amount	19.2	27.5	46.7
Intermediate input amount	8.7	12.4	21.1
Gross value added (GDP)	10.5	15.1	25.6
Job creation	314 jobs	412 jobs	726 jobs

Source: produced by CDI

Note：Due to rounding, totals may not match.

Shimane Prefecture's prefectural gross production value (nominal) is about 21,605 million US dollars, so the increase in the prefecture's GDP by designating Matsue Castle as a national treasure is 0.05-0.07% of that.

Table 2-23 Contribution of designation of Matsue Castle as a national treasure to (nominal) prefectural GDP

(Units: M USD)

	2015	2016
Increase in total prefectural production from designation of Matsue Castle as a national treasure (GDP -- prefectural accounts)	10.5	15.1
Nominal prefectural GDP, Shimane Prefecture (2013-2014 average)'	21,605	
Degree of contribution	0.05%	0.07%

Source: produced by CDI

Note：Due to rounding, totals may not match.

Column 4: Economic ripple effects from designation of Matsue Castle as a national treasure

The economic ripple effect of the increase in tourism consumption due to the designation of Matsue Castle National Treasure is estimated to be approximately 24.8 million US dollars in 2015 and 32.2 million US dollars in 2016 in the total effect including the secondary effect in terms of production induced value. The total is approximately 57.0 million US dollars over two years.

The effect ratio is 1.20 to 1.22 as a ratio of the total effect to the final demand, and 1.48 to 1.49 as a ratio of the total effect to the direct effect. The added value of the total effect is about 13.8 million US dollars in 2015 and about 18.4 million US dollars in 2016, totaling about 32.2 million US dollars for two years.

Table 2-24 Economic ripple effects from designation of Matsue Castle as a national treasure (Units: M USD)

	2015		2016	
	Induced production amount	Gross value added	Induced production amount	Gross value added
A. Direct effect	15.0	8.2	21.6	11.8
B. Primary indirect effect	4.1	2.3	5.9	3.3
C. Secondary indirect effect	3.3	2.2	4.4	3.0
D. Total effect (A+B+C)	22.4	12.7	32.0	18.1
Effect scale (total effect/end demand)	1.20		1.22	
Effect scale (total effect/direct effect)	1.49		1.48	

Source: produced by CDI *Note : Due to rounding, totals may not match.*

As shown in the table below, it can be seen that the effect of designating Matsue Castle as a national treasure has greatly contributed to the economic effect compared to the previous year.

Table 2-25 Degree of contribution of economic ripple effects from designation of Matsue Castle as a national treasure (Units: M USD)

	2015			2016		
	Touristic consumption	Economic ripple effects (through to secondary)	Increase in tourism consumption from the previous year	Touristic consumption	Economic ripple effects (through to secondary)	Increase in tourism consumption from the previous year
Matsue City (as a whole)	562.3	688.9	2.5	644.3	816.2	23.9
Effects from designation of Matsue Castle as a national treasure	15.0	22.5	15.0	22.1	32.2	5.5
Proportion of effects from designation of Matsue Castle as a national treasure	2.7%	3.3%	600.0%	3.4%	3.9%	23.1%

Source: produced by CDI based on Matsue Tourism Survey 2015/2016

■Chapter 3 Future issues of numerical evaluation

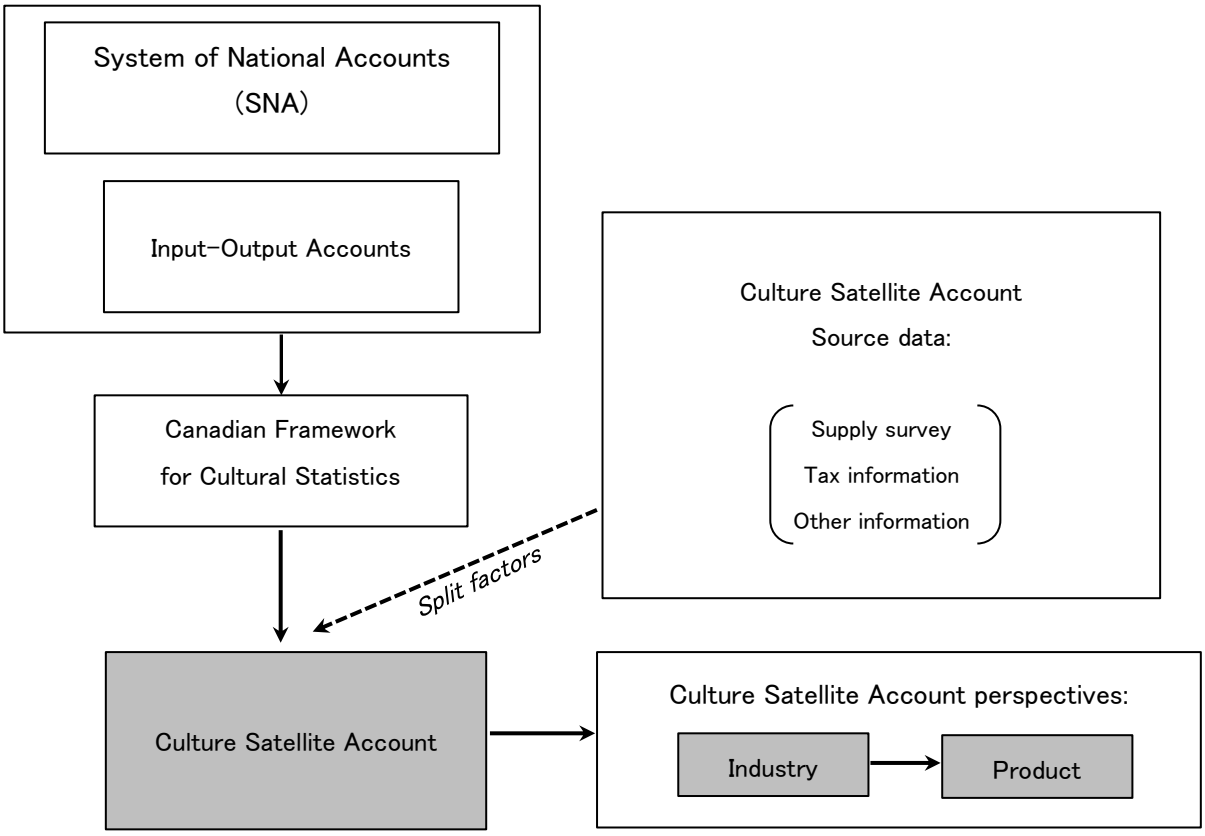
3.1 Technical issues to implementation of Culture Satellite Account (CSA)

3.1.1 Basic issues in Japan

Importance of cultural statistics as a premise of CSA

The implementation of the Cultural Satellite Account (CSA) requires two statistical bases. The following figure shows the Canadian CSA framework. The Canadian framework is an international standard. As shown in this figure, CSA is the work of incorporating cultural statistics into National Accounts (SNA), for which the necessary cultural statistics must first be sufficient. Enhancement of cultural statistics is a prerequisite for compiling CSA.

Figure 3-1 Canadian system of National Account and the Canadian Cultural Satellite Account



Source: Canadian Culture Satellite Account, 2010

Relationship with SNA

The SNA in Japan has been prepared from an industrial perspective and framework for that purpose. For this reason, cultural activities and economic activities are not well connected. In addition, there is a problem that the priority is given to the manufacturing industry, and many cultural activities included in the services industry cannot be picked up in detail. For example, various cultural services are grouped together as "other services" and "other personal services" regardless of whether the theme is art or drama. For this reason, cultural accounts have to be rough.

Inconsistency between statistics

The CSA needs to use some basic economic statistics in addition to SNA. One of them is the input-output table. However, for example, the industrial classification is not the same between the input-output table and SNA. Therefore, it is necessary to create a comparison table between SNA and the industrial classification of the input-output table.

In addition, since CSA views cultural activities in the phase of consumption/participation, it will try to capture the consumption (demand) of goods and services (cultural products) related to cultural activities. For example, a “Household survey” is useful for capturing final consumption. However, consumption items in household surveys are not linked to input-output tables or SNA goods and services (products). Therefore, it is necessary to link the two. In that work, it is reasonable to make the "Japanese commodity standard classification" correspond to the "Japanese standard industry classification sub-classification". However, the "Japan Product Standard Classification" is a classification of physical goods, and does not correspond to services (characteristic non-material human services) that are characteristic of cultural goods. Also, since it has not been revised since 1990, the product lineup is old and does not include new products.

Therefore, there is no other way but to relate products and industries while relying on the relatively new "Japanese Standard Industrial Classification". However, this task is likely to be arbitrary. In addition, different results or errors are likely to occur depending on the method.

3.1.2 Issues for targeting culture

Definition of culture

In the first place, the definition of culture itself is ambiguous and abstract. Even in the cultural satellite account, it is not clear what kind of content and how far is defined as culture. There are also various types of cultural activities, their contents, the level of their main constituents, and the way. Further, in some fields, such as the publishing industry, all the products produced are not cultural products. The boundaries between entertainment/leisure activities and cultural activities, and the boundaries between lifestyle and cultural activities are also ambiguous.

Therefore, a rough definition of the culture targeted by the CSA is needed, taking into account the definition of each culture. It is reasonable to proceed with the definition of culture in conformity with the framework set by UNESCO for CSA.

In addition to the UNESCO framework, it is also conceivable to add the concept of Japan's Basic Law on Culture and Art, and the areas of life and culture that are considered to be important themes in cultural administration in Japan in the future, as well as traditional areas of life and culture. In this study, “tea ceremony” and “Japanese sake” were added to the case study assuming these areas.

Subject of cultural activity

The calculation of satellite accounts is based on the calculation of GDP by rearranging the framework of the National Accounts Accounting (SNA), and on social activities that were not originally included in the existing SNA

framework, such as domestic work and volunteer activities. There are two types of calculations using the SNA framework. CSA and Tourism Satellite Accounts (TSA) are of the former type, while Environmental Accounts, Satellite Accounts for NPOs and Volunteer Activities, Domestic Labor, Care and Welfare, etc. are of the latter type. However, in the cultural field, volunteer and NPO activities are also active, and this belongs to the latter type. Therefore, they are not included in the CSA calculated under the former framework. In some cases, companies engage in cultural activities as one of their social contributions, but this is not clearly reflected in SNA. In the future, how to handle such cultural activities in the calculation of CSA will also be an issue.

Cultural consumption and general consumption

The TSA defines tourist consumption as tourism consumption. An example of a tourist definition is "a person who leaves his usual place of residence and travels for personal purposes, such as business or leisure, within a year. " For example, if an office worker near a city restaurant goes to lunch, consumption is not tourism consumption. However, if people from other cities or foreign countries eat at the same restaurant, it is considered tourist consumption. In the case of cultural activities, this division is difficult. Especially in the case of consumption of cultural services, production and consumption often occur simultaneously in the same place. In addition, it is difficult to set up a framework of “cultural consumers” that corresponds to “tourists”, and it is not possible to pre-divide cultural consumers and non-consumers unlike the TSA. Therefore, it is necessary to carefully classify cultural and non-cultural depending on the nature of cultural products (services) and on a case-by-case basis. In order to make such a careful classification, statistical data of a fine division is required.

Cultural consumption and touristic consumption

For example, in the area of culture/natural heritage, most of its consumption is the same as tourism consumption, such as the case study Matsue Castle. In these areas, it is difficult to separate cultural consumption from tourism consumption. In the area of cultural properties/historical sites and natural landscapes, activities such as protection/maintenance/survey are considered as cultural activities, and the consumption part connected with sightseeing may be treated as “peripheral (related) area of culture”. However, such processing may not lead to the viewpoint that culture becomes a resource for regional development. As in these cases, the division and arrangement of cultural consumption and tourism consumption is also an issue for the future.

Cultural transformation

For example, in relation to the media, there is a remarkable change in the way of enjoying culture and art. The growth of music and video distribution over the Internet is remarkable. In addition to the distribution services, the equipment for receiving the services is also changing. Our cultural behavior is changing, and that change is affecting industries and economies. Conversely, the industrial and economic side can have a significant effect on our cultural behavior. In some cases, the SNA in the industrial framework has not fully responded to such changes. If CSA is to be pursued, it is necessary to conduct some case studies in the future, verify the degree of impact, and consider countermeasures.

Globalization of culture

The development of information and transportation systems has increased the density of cultural exchanges, and the globalization of culture is accelerating. In the content area of cultural activities, it can be reflected in CSA as a phenomenon such as an increase in appreciation of Western music and an increase in the number of foreign artists visiting Japan, or an increase in the number of people going to overseas art exhibitions and art museums. On the other hand, the popularity of Japanese anime overseas is growing. Exports of Japanese food and sake are also increasing. Conversely, imports of some cultural products are increasing. These phenomena must be processed in trade account data and reflected in CSA. In that case, trade balance and immigration data will be important. However, CSA tends to prioritize the division of production accounts, and the data on trade accounts is less important. Verification and research on this aspect is needed in the future.

Column 5: Current status of CSA in the world

CSA has already been compiled in several countries. In many countries, CSA is conducted in accordance with guidelines and manuals prepared by CAB, an international organization of UNESCO and Latin America. However, none of them are completed types, and so to speak, they are still being tested, and various technical issues still arise. In addition, each country has various ideas and unique elements, depending on the actual situation. That's necessary given the characteristics of the culture in question. However, if countries seek too much uniqueness, it will be difficult to make international comparisons, one of the goals of CSA. In this regard, the necessity of international standards has been pointed out, and UNESCO has begun to respond.

Table 3-1 Countries compiling CSA

Country	Start year
1. Spain	2009
2. Finland	2009
3. South America (Uruguay, Mexico, Argentina, Chile, Costa Rica, etc.)	2009-2012
4. United States	2013
5. Australia	2014
6. Canada	2014

Source: Prepared by CDI based on Culture Satellite Account: An Examination of Current Methodologies and Country Experiences, UNESCO Institute for Statistics, 2015

3.2 Issues of using Culture Satellite Account (CSA)

3.2.1 Clarification of assumptions

The Cultural Satellite Account (CSA) is the calculation of the value of production, distribution, GDP, and employment of products and services in the cultural domain, starting from cultural activities and cultural consumption. It also quantifies the economic importance of culture to the economy. This figure is in the same framework as other economic activities and industries and can be compared with them. By comparing in the same framework, we can recognize its significance and position. Furthermore, since CSA is both a cultural indicator and an economic indicator, the Canadian CSA report, for example, states that the following functions can be expected:

(i) timely annual or quarterly macroeconomic performance indicators on the state of culture in Canada;

(ii) detailed information on jobs in the culture industries;

(iii) estimating government tax revenues generated from culture industries and culture products; and

(iv) economic impact modeling that can be used for "what if" simulations of the indirect or multiplier effects generated throughout the economy from additional spending on culture.

This sort of arrangement strongly emphasizes the view of culture from the economic side. It can be said that it indicates the direction of revitalizing the economy through culture, or the recognition that culture can revitalize the economy. In the future, it is important to deepen discussions about the meaning and significance of the development of cultural GDP theory (CSA theory) built into industrial society. This kind of discussion is a prerequisite for how to use CSA.

3.2.2 Utilization and development in various fields

Enhancement of cultural statistics as a premise to achieving CSA

The culture and arts of the country and society are important elements of the status and presence of the country and society. It must be clear what culture and arts are desirable in each country. However, this is not limited to the relationship between culture and economy. Visualized numerical data is important so that people can share the perception of the situation of culture and art from various angles, and can see a wide range and perspective of culture and art. The CSA is one of them, but CSA relies on the existence of appropriate and accurate cultural statistics. Therefore, the compilation of CSA and the enhancement of broad and basic cultural statistics must be promoted in parallel.

Compilation of CSA according to international standards

CSA is based on SNA, which is compiled based on internationally harmonized standards. Therefore, like SNA, CSA can be compared internationally. However, cultural activities are more ambiguous than economic and industrial activities, and they vary from country to country. For this reason, internationally unified standards for CSA are not yet established. With UNESCO taking the lead in setting international standards, the process of compiling CSA in each country is just beginning. Some Western countries, Latin American countries, Australia, etc. are working on CSA, but

there seems to be little horizontal cooperation. No Asian country, including Japan, is working on CSA compilation. If Asian countries were to participate in the compilation of CSA, the situation would be more complicated due to differences in cultural views and national circumstances.

International comparisons are important for using CSA, but the basis is still weak. Therefore, in order to proceed with the compilation of CSA in Japan, it is reasonable to proceed in the framework of UNESCO while participating in the development of unified standards promoted by UNESCO. If Asian countries are to participate in the future, Japan may be expected to take an initiative in CSA compilation in Asia and to serve as a bridge between Asia and leading countries in CSA.

Promotion of the whole culture utilizing the economic elements of culture

In the framework of CSA, the viewpoint of looking at culture from the economy is emphasized, but the viewpoint of looking at the economy from culture is also important. For example, looking at various areas of culture through CSA, some are more productive and some are less productive. Some have a strong influence on other industries, while others have a weaker influence. Evaluating culture in terms of economic value and numerical value is different from evaluating cultural diversity, creativity, and humanity. Along with the economic cycle and ecosystem, if we can simultaneously clarify the creative structure and cycle structure, interrelationship, and ecosystem inherent in culture, it will be possible to formulate richer cultural policies.

Based on the CSA, the economic element of culture can be used as a lever to formulate policies for promoting the entire culture. For example, suppose that it becomes clear that the cultural industry A is based on a strong relationship with the value and existence of the culture B, and that the relationship between the two could be quantified. Based on this, the economic value generated by A can be returned to the maintenance and promotion of B, and both economic value and cultural value can be balanced or circulated. This perspective is considered to be one of the essential aspects of CSA utilization. The development of such model policies may be possible with some CSA's upfront model studies.

This is an approach that leads to the construction of a new business model utilizing culture and the promotion of industry through innovation. Furthermore, it is thought to function as an important factor in considering policies such as the maintenance of regional infrastructure in the depopulated society, the utilization of cultural resources in promotion, and the investment in local culture. In addition, CSA can compare time series, measure policy effects and investment effects, and it is necessary to consider its use in this regard.

Public and private roles

When trying to maintain and promote culture using the economy as leverage, it is necessary to deepen discussions on the division of roles between the public and private sectors, assuming a new culture-economy relationship. If the perception of culture and the cultural industry and its evaluation of potential change, for example, private companies will actively participate in cultural industries and create cultural industries, in addition to the traditional social contribution activities. These changes can affect the culture. The two sectors, public and private, need to fully understand that there is a reciprocal relationship between economy and culture, and to fully discuss their specific programs and division of roles.

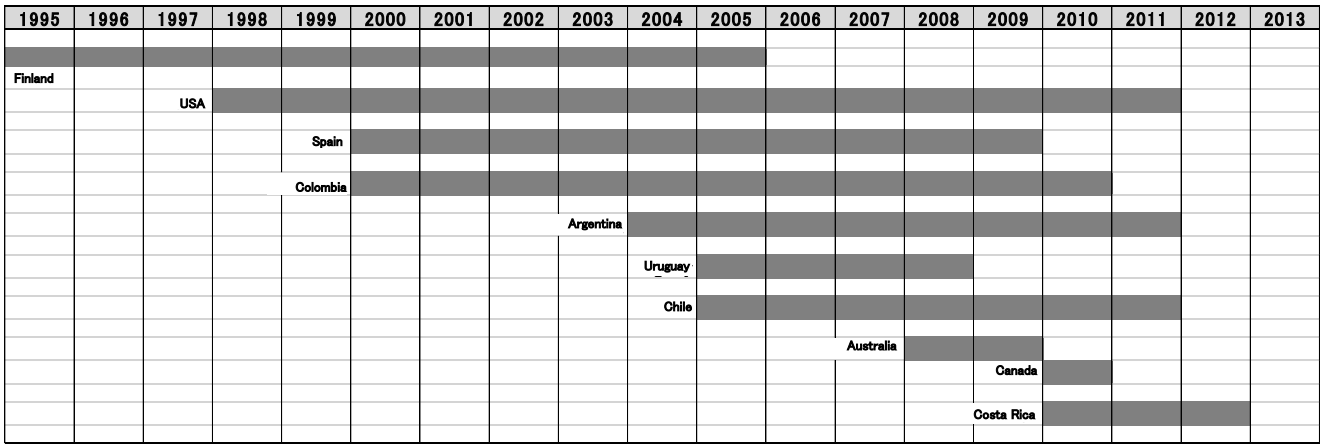
3.3 Towards implementation of CSA

To promote the CSA, there are many issues to be considered in parallel, such as the basic philosophy, significance, and vision of utilization, in addition to technical issues. But first of all, it is important to overcome technical problems and move forward. This section describes the basic scheme for promoting CSA, focusing on technical aspects.

3.3.1 Necessity of sufficient study and trial period

Basic cultural statistics are required for CSA implementation. However, the content of the CSA is complicated, unlike the Tourism Satellite Account (TSA), in which it is relatively easy to grasp the rules of tourism behavior and its consumption. The figure below illustrates the years from launch to publication in countries that are already working on CSA. Obviously, the time taken by the country to start later is short. Of course, the reason is that there is a preceding case that can be referred to. Latin American countries share Spanish guidelines and manuals and are in an environment where they can be easily referenced based on cultural commonality. In the case of Australia and Canada, it is probable that TSA was promoted and that experience was applied to CSA.

Figure 3-2 Comparison of CSA creation time



Source: Prepared by CDI based on Culture Satellite Account: An Examination of Current Methodologies and Country Experiences, UNESCO Bureau of Statistics, 2015

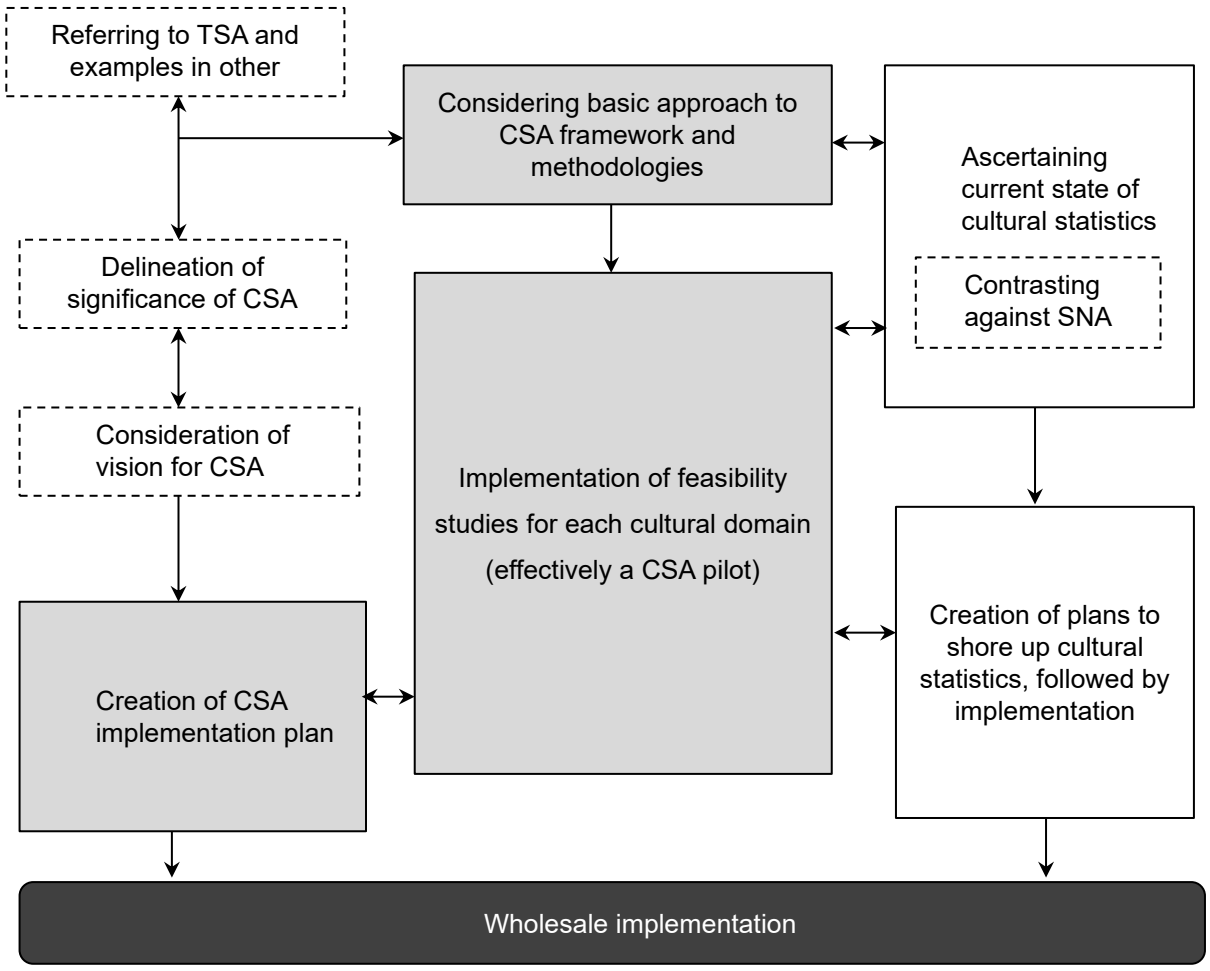
For the purpose of compiling a CSA, it is effective and efficient to refer to the TSA framework and process for the time being. The implementation of TSA in Japan has been promoted after a long period of study and trial.

Considering employing TSA　2000-2001
Implementing surveys on travel/tourism consumption: preliminary calculation of TSA　2003
Basic Act for Promotion of a Tourism-Oriented Country 2006
Plan for promotion of a tourism-oriented country: Wholesale implementation of TSA is incorporated 2007
Announcement of wholesale TSA measures 2009

3.3.2 Strategic and trial realization programs

The CSA compilation is based on the preceding TSA, but the work is not expected to be as simple as TSA. There are two main reasons for this. One is that the target culture is not as simple as tourism, but is diverse and multi-layered. The other is a statistical factor, such as insufficient cultural statistics, which is the basis of CSA, and a lack of statistical bridge between SNA and CSA. This is the same as the preceding countries in terms of conditions, but it is being tackled tenaciously. The outline of CSA compilation in Japan with reference to such precedents is as follows.

Figure 3-3 Programs towards realization of CSA



Source: Prepared by CDI

The points of the procedure are the following three points.

(1) For each cultural area, set a feasible framework according to the nature and actual situation.
(2) At the same time as examining the framework, grasp the current status of cultural statistics in the cultural area (including coordination with SNA).
(3) Advance the development plan of cultural statistics.

Considering the actual situation of cultural statistics in Japan, it is considered that a realistic program is to go into full-scale implementation through such a strategic process.

3.3.3 Cultural domains and types of feasibility studies

In this study, we conducted case studies in four areas. Each area has the following positive and negative characteristics from the viewpoint of CSA.

Table 3-2 Aspects of each case study

Case study	Positive aspects	Negative aspects
Japanese Sake	(1) Basic goods/services (commodities) implicated are clear, making it easily applicable to SNA. (Easy to identify industrial sectors.)	(1) Basic goods and services (products) are not unique products of cultural activities, and it is necessary to set the cultural ratio of basic goods and services (products) themselves. (issue of drawing a line between cultural and everyday consumption). (2) Lack of cultural statistics on the subject.
Movies	(1) Basic goods/services (commodities) are clear, and this area is incorporated as an industrial sector within SNA. (The industrial sector can be readily identified.) (2) There are readily available cultural statistics, including on activities taken.	(1) The issue is how to include foreign film imports and Japanese animation exports. (Import / Export processing) (2) In the field of secondary use (such as the information industry) such as a change in media, it is necessary to perform processing to distinguish between cultural consumption and general consumption.
Tea ceremony	(1) The concept has been established as an area of cultural activity. In addition, the activities can be almost clarified.	(1) Cannot be related to characteristic goods or services. (2) There is almost no statistical data from a product or industrial perspective based on activities and consumption.
Matsue Castle	(1) With a focus on tourism consumption, statistical data on this aspect has been prepared. (2) CSA can be calculated in conjunction with TSA calculation.	(1) There is no conceptual division between tourism consumption and cultural consumption. (Issues of tourism and cultural consumption)

Source: Prepared by CDI

The four case studies in this study each have positive and negative characteristics. Therefore, if these four cases are used as models and applied to similar domains, it is possible to assume the necessary cultural statistics and the necessary work (activity survey, etc.) in the future. The table on the next page applies four case studies as models and one perspective. Based on this outlook, it is a realistic program of CSA in Japan that will successively build up strategic feasibility studies for each major cultural area, and bring it to the CSA implementation plan and full-scale implementation.

Furthermore, antiques in the “other areas” and cultural expenditures by the public, such as intangible heritage in the “peripheral areas” and education and training of culture are topics for further study. It is necessary to proceed with consideration while referring to examples from other countries.

Table 3-3 Comparison between the case studies of this study and the domains that can be modeled

Domain/Sub-domain		Type1 (Sake)	Type2 (Movies)	Type3 (Tea ceremony)	Type4 (Matsue castle)
A. Cultural and natural heritage	Museums (also virtual)				TSA Type
	Archeological and historical places				TSA Type
	Cultural landscapes				TSA Type
	Natural heritage				TSA Type
B. Performance and celebration	Performing arts				
	Music				
	Festivals, fairs and feasts				TSA Type
C. Visual arts and crafts	Fine arts				
	Photography				
	Crafts				
D. Books and press	Books				
	Newspaper and magazine				
	Other printed matter				
	Library (also virtual)				
	Book fairs				TSA Type
E. Audiovisual and interactive media	Film and video				
	TV and Radio (also internet live streaming)				
	Internet podcasting				
	Video games (also online)				
F. Design and creative services	Fashion design				
	Graphic design				
	Interior design				
	Landscape design				
	Architectural services				
	Advertising services				
G. Life culture	Tea ceremony				
	Flower arrangement				
	Calligraphy				
	Food culture				
	Other life culture				
H. Peripheral domains	Intangible cultural heritage				
	Education and training				
	Archiving and preserving				
	Equipment and supporting materials				
I. Other	Antique art				
	Public cultural policy and spending				

Areas for further study

Note: Domain where masked cells are similar to each type.

Source: Prepared by CDI

Index to figures and tables

Figures

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