

Abstract of Doctoral Thesis

Title: Research on the evaluation of digital archives in the region - Construction and Practice of an Interindustry Analysis Model for Digital Video Archives by Local Government

Doctoral Program: Major in Informatics of Behavior and Cultures

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In the early 1990s, when Japan's "digital archive" was in its infancy, various local governments tried to "promote regional development by digitally recording and promoting cultural assets. Among them, "videos" attracted much attention as a cultural asset, and many "local government digital video archives" were established. As for digital video archives by local governments, since taxpayers' money is invested, it is necessary to set KPIs from the perspective of cost effectiveness. However, there has been limited measurement of the economic benefits of digital video archives by local governments. Therefore, we measured the economic benefits of digital video archives by local governments and discussed the significance and value of digital video archives by local governments from the perspective of such benefits.

First, we reviewed the status of the establishment of digital video archives by local governments. In addition, "economic ripple effect" was defined as the effect to be measured in this study. We then estimated the economic ripple effects of the investment in the establishment of digital archives and the operating costs on a trial basis for "Ueda City Digital Archive" (Ueda City, Nagano Prefecture), "Ishikawa Shin Joho Shofu" (Ishikawa Prefecture), and "Wonder Okinawa" (Okinawa Prefecture), which are examples from the pioneer period. The economic impact shown here was 29.036 million yen (Ueda City Digital Archive), 41.759 million yen (Ishikawa Shin Joho Shofu), and 188.768 million yen (Wonder Okinawa), respectively. However, the accuracy of the estimation results remained a problem due to the lack of relevant data. Therefore, in order to refine the economic spillover effects, we estimated the economic spillover effects for the last three years for the "Ueda City Digital Archive," in which sufficient relevant materials remained and the cooperation of the local government was obtained. Here, highly accurate data showed a total economic ripple effect of ¥31.32 million over the three-year period. However, the lack of estimates of economic ripple effects resulting from tourism consumption, etc. remained a problem.

Then, through a study of the overall economic effects of digital video archives by local governments, an estimation model of the economic ripple effects of construction investment, operating expenses, and tourism consumption was constructed, and the estimation was practiced using this model. Here, the economic ripple effect was estimated for "Nanjo Archive Tourism" (Nanjo City, Okinawa Prefecture), and the result was 15.568 million yen.

Finally, the results of this study include "the demonstration of the economic ripple effects of digital video archives by local governments" and "the construction of some quantitative methods for weighing the quantitative effects related to digital archiving". The significance of the project is then listed as "the prospect of gaining the understanding of local residents" and "the methodological contribution to the measurement of quantitative effects". The economic ripple effect shown in this study was positioned as a fundamental effect that supports the "potential in the continuation and expansion" of digital video archives by local governments.