Perceptions of Sustainable Tourism Indicators in Rural America: Consensus on Priority Indicators and an Importance-Performance Analysis for the Upper Valley Region of Vermont and New-Hampshire

Jinyang Deng
West Virginia University

Daniel Eades
WVU Extension Service

Douglas Arbogast*
Douglas.arbogast@mail.wvu.edu
WVU Extension Service

Jada Lindblom
University of New Hampshire Cooperative Extension

*corresponding author

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Introduction

The increasing importance of the recreation economy has been recognized by the USDA as a priority area of national need and an effective means for rural development. A recent study (The U.S. Bureau of Economic Analysis, 2022) reveals that outdoor recreation economy accounted for 1.9% ($454.0 billion) of GDP in 2021 (The U.S. Bureau of Economic Analysis, 2022). Although outdoor recreation is a growing and diverse economic sector, many rural communities lack the capacity and resources to successfully capitalize on the recreation economy. Polukhina, et al., (2021) identified the need for a unified system of indicators to balance the benefits and costs of different stakeholders, aimed at stimulating interregional and inter-municipal cooperation to help manage the impacts of the increasing interest in visiting rural areas due to COVID-19. Gateway communities in the United States suffer from a similar lack of research-based performance indicators to measure and evaluate their strengths and weaknesses and clearly identify where additional resources are needed to enhance the tourism and recreation economy. To this end, a multi-state, integrated project team that involves research and extension faculty is developing an integrated process for measuring and evaluating sustainable tourism performance indicators. By understanding the factors that make destinations resilient the project will produce policy recommendations and general guidelines for improving destination and gateway community well-being. This project was funded from a USDA Agriculture and Food Research Initiative grant and adopts a mixed method approach that involves primary data collection and secondary data collection. Reported in this abstract are preliminary findings on academic, stakeholder, and visitors' perceptions of tourism sustainability indicators. Secondary indicators were evaluated by academic practitioners working on the research team and destination leaders in three rural tourism destinations in Pennsylvania, New Hampshire, Vermont, and West Virginia. Our analysis of visitor perceptions focuses particularly in the central New Hampshire and Vermont region known as the Upper Valley.

Methods

Questionnaire

Two questionnaires were developed based on previous literature (e.g., Durovic & Lovrentjev, 2014; Powell et al., 2017; Vogt, 2021) with input from the research team and invited external reviewers including tourism leadership in targeted destinations. One questionnaire focused on secondary indicators drawn from community capital/wealth and sustainable tourism frameworks (Asmelash & Kumar, 2019; Berry, 2006; Emery & Flora, 2020; Federal Lands Livability Initiatives, 2014; Pender, et al., 2012; Romao et al., 2013). Approximately 250 indicators were evaluated by core team members for inclusion in the survey. Sixty-five (65) indicators, organized under economic, social, and environmental domains were selected. An additional four indicators were included to describe destination management organizational capacity. Participants ranked selected indicators on seven-point Likert scale from very important (7) to not at all important (1). Participants were also given the option to assign the indicator to a different domain and suggest additional indicators for inclusion. The questionnaire was built into Qualtrics and reviewed and approved by West Virginia University IRB.

The second questionnaire consisted of eight sections, including: 1) background information, 2) trip characteristics, 3) perceptions of tourism sustainability indicators: importance, 4) perceptions of tourism sustainability indicators: performance, 5) perceptions of relative competitiveness for the Upper Valley area, 6) post-Covid-19 travel preferences and behaviors, 7) perceptions of the relationship between humans and the environment, and 8) socio-demographics. The questionnaire was built into Qualtrics and reviewed and approved by West Virginia University IRB. The questionnaire was pilot tested on Prolific on December 2022 and was finalized based on comments and feedback from 44 participants from Connecticut (CT), one of four tourism market feeder locations identified by local leadership for the region. The other three market origins identified are Massachusetts (MA), New York (NY), and Canada (Montreal). Table 1 lists 32 indicators that fall into four dimensions of sustainability: environmental, socio-economic, cultural, and institutional (Asmelash & Kumar, 2019; Global Sustainable Tourism Council, 2022).

Table 1

Rural Tourism Sustainability Indicators

Environmental	Socio-economic	Cultural	Institutional
1. Protection of the natural environment	9. Economic opportunities from tourism development	17. A policy and system to evaluate, rehabilitate, and conserve cultural assets, including built heritage and cultural landscapes	25. Evidence of links and engagement with other bodies
2. Rural authenticity	10. High-paying jobs from tourism development	18. Celebration and protection of intangible cultural heritage, including local traditions, arts, music, language, food and other aspects of local identity and distinctiveness	26. Existence of a regional collaboration and marketing organization
3. Environmental quality	11. Improvement of the well-being of rural communities from tourism development	19. Accurate interpretative material that informs visitors of the significance of the cultural and natural aspects of the sites they visit	27. Local leaders' support for tourism development
4. Reduction of energy consumption and improvement of efficiency in its use	12. Marketing and promotion of tourism assets to visitors	20. Guidelines for visitor behavior at sensitive sites and cultural events being made available to visitors	28. Quality of public-private partnership in tourism
5. Control of negative impacts through long-term planning	13. More investment in tourism development	21. Optimize visitor flow and minimize adverse impacts in cultural sites	29. A risk reduction, crisis management and emergency response plan
6. Management of waste	14. Contribution to community and sustainability initiatives in a responsible manner from enterprises,	22. Opportunities for visitors to reflect on religious or other spiritual values	30. A system to monitor and respond to socio-economic, cultural and environmental issues and impacts arising from tourism

	visitors, and the public		
7. Reduction of greenhouse gas emissions	15. Career opportunities and training in tourism	23. Cultural/heritages sites accessible to physically disabled tourists	31. Public participation in sustainable destination planning and management
8. Management of overcrowding	16. A system to monitor, prevent, publicly report, and respond to crime, safety, and health hazards that addresses the needs of both visitors and residents	24. Safeguarding cultural identify of local community	32. The destination management strategy/plan clearly visible and available online

Data collection

A Qualtrics link for the secondary data indicator questionnaire was distributed via email to academic team members and leadership in partner destinations. The survey was completed by 10 academic practitioners and 13 destination leaders.

Prolific was used as the survey platform for this study with a reimbursement of $5 for each participant who met the screening criteria and who completed the survey. A sample size of 600 was proportionately assigned to each market origin (50 for CT, 135 for MA, 336 for NY, and 78 for Canada), based on its available number of matching participants. The survey was distributed to CT on Jan. 25, 2023; to MA on Jan. 27, 2023; to Canada on Jan. 31, 2023; and to NY on Feb. 6, 2023; respectively.

Data analysis

Secondary indicators surveys were analyzed using descriptive statistics; interquartile ranges (IQRs) were calculated for each question. Consensus on indicators importance was considered “strong” when at least 75% of respondents reached agreement. IQRs (absolute value of the difference between the 75th and 25th percentiles) were used to calculate the strength of the consensus. An IQR of 0 indicates a strong group consensus while values greater than 2 indicates dispersed responses.

Visitor perceptions of sustainability indicators were evaluated using importance-performance analysis (IPA) by the market origin. The IPA framework was introduced by Martilla and James (1977) in marketing research to understand customers’ satisfaction by matching their perceptions of attribute importance and performance. Importance and performance data are plotted against one another into one of four quadrants: “concentrate here,” “keep up the good work,” “potential overkill,” and “low priority.” Two common approaches (scale-centered and data-centered) have been used in the literature to determine the crosshairs of the intersecting quadrant lines. Following Deng et al. (2017), this abstract used the data-centered approach with a slight modification, where the difference between the mean and the raw value, instead of the raw value of an attribute, was plotted in the quadrant matrix.

Results

Analysis of secondary indicators found disagreement between academic practitioners and destination leaders concerning variables deemed “important.” Specifically, we noted consensus from both groups around economic indicators, but lower importance rankings from local leadership for environmental and social indicators. For example, median importance ratings of 6+ and IQRs less than one were observed for only two social variables and one environmental variable. In contrast, we found consensus for five economic variables. Additionally, local leadership was more likely to take a narrow view of the respective domains. For example, within the environmental domain, variables describing the natural environment were consistently rated higher than built environment variables.

As of Feb. 8, 2023, the usable visitor questionnaires received are as follows: 49 from CT, 124 from MA, 173 from NY, and 63 from Canada, respectively. Figures 1-4 display IPA graphs for CT, MA, NY, and Canada, respectively. Results show that more than half of the 32 indicators were considered very important (above the average within each group) (17 for CT, 19 for MA, 16 for NY, and 18 for Canada). Of these indicators, five are environmental indicators (1, 3, 5, 6, and 7). In terms of performance, nearly 50% of indicators (14 for CT, 14 for MA, 15 for NY, and 16 for Canada) were perceived to perform well (above the average within each group), including four environmental indicators (1, 3, 5, and 6).

Four indicators (1, 3, 6, and 20) are consistently located in the “keep up the good work” quadrant across the four market origins. Five indicators (10, 12, 13, 15, and 25) are commonly located in the “low priority” area. Only one indicator (Indicator 11, improvement of the well-being of rural communities from tourism development) is consistently located in the “concentrate here” zone, while no common indicators are found in the “possible overkill” category among the four groups.

Figure 1

Importance-Performance Analysis (CT)

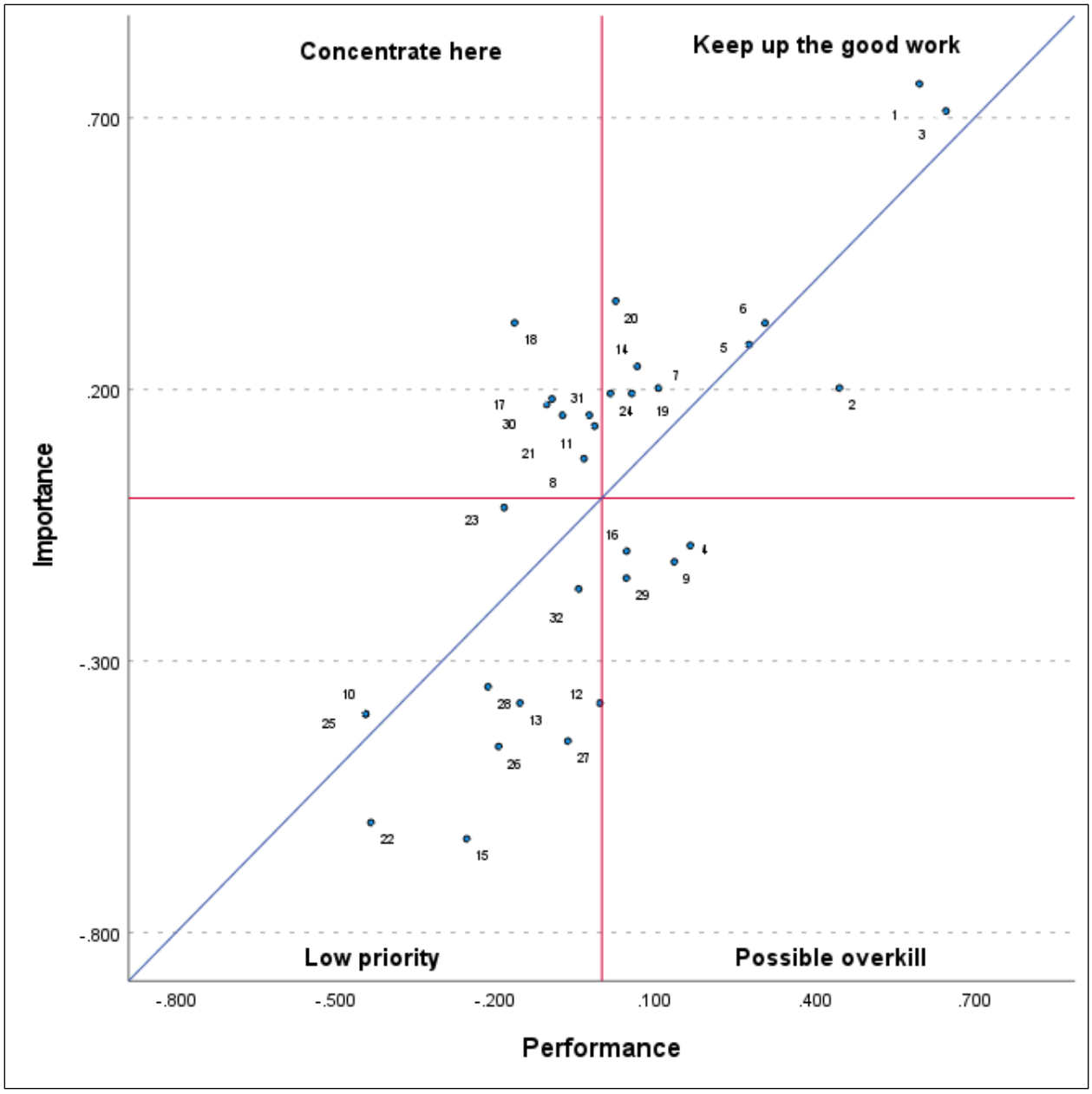


Figure 2

Importance-Performance Analysis (MA)

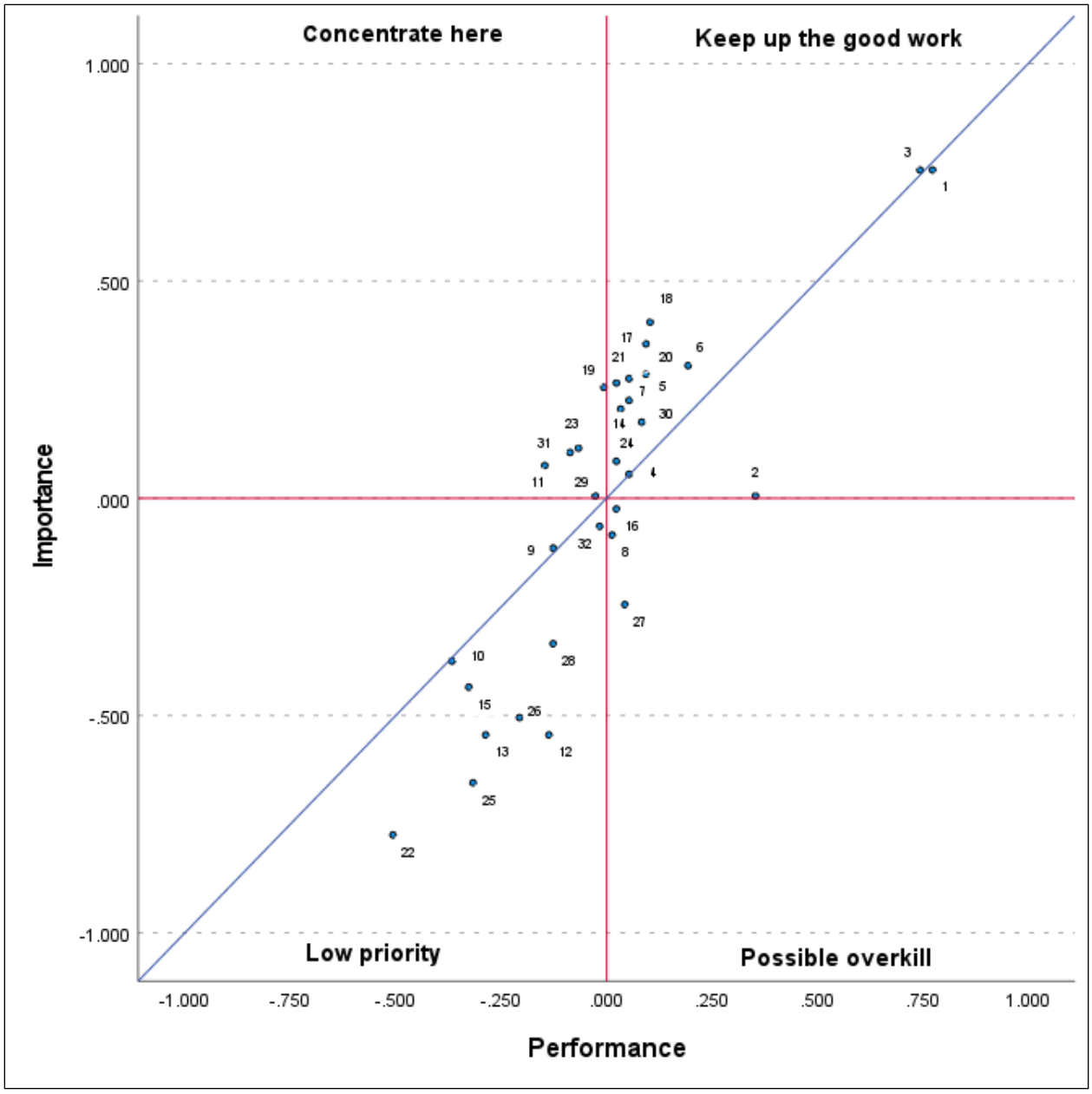


Figure 3
Importance-Performance Analysis (NY)

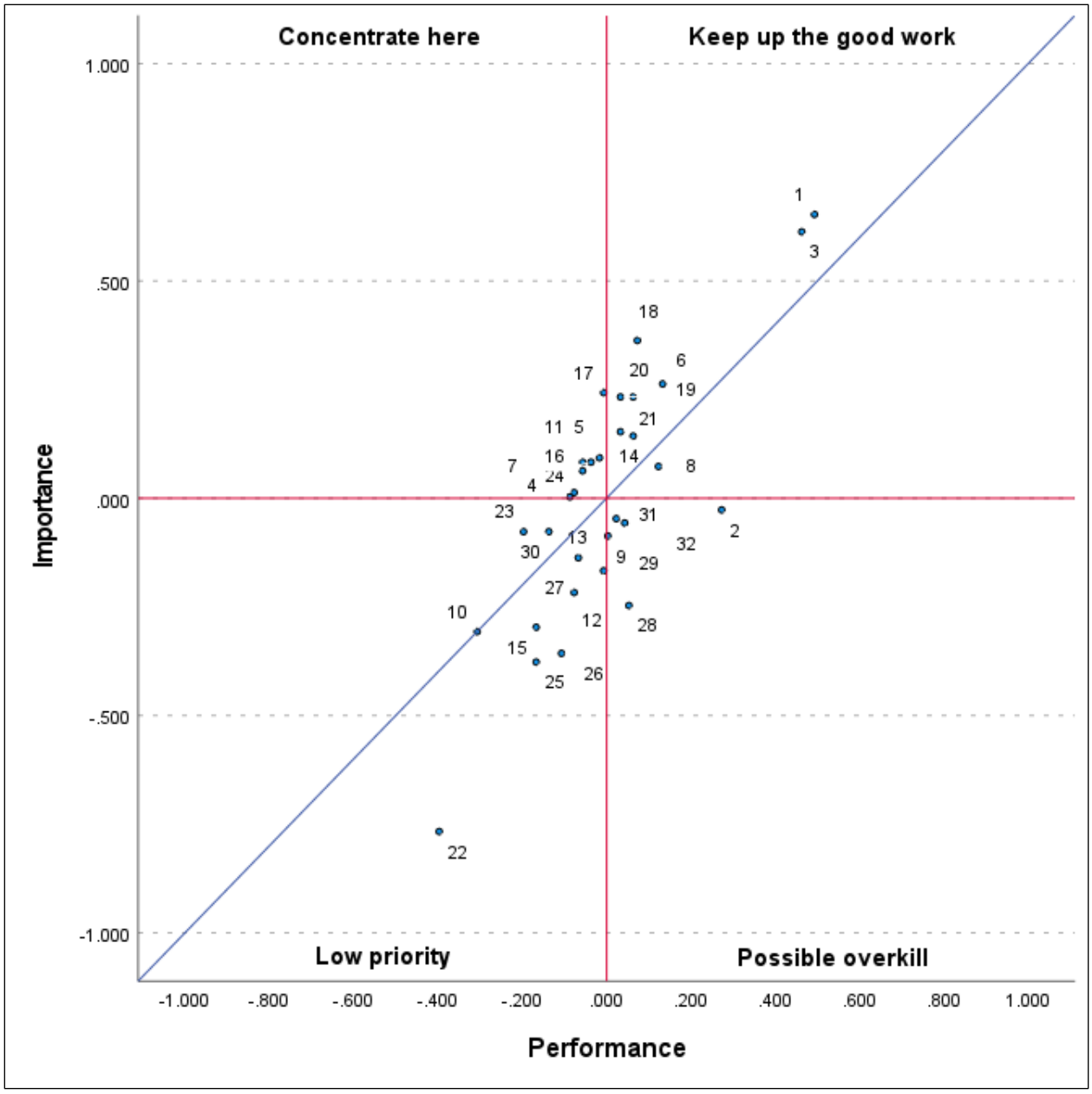
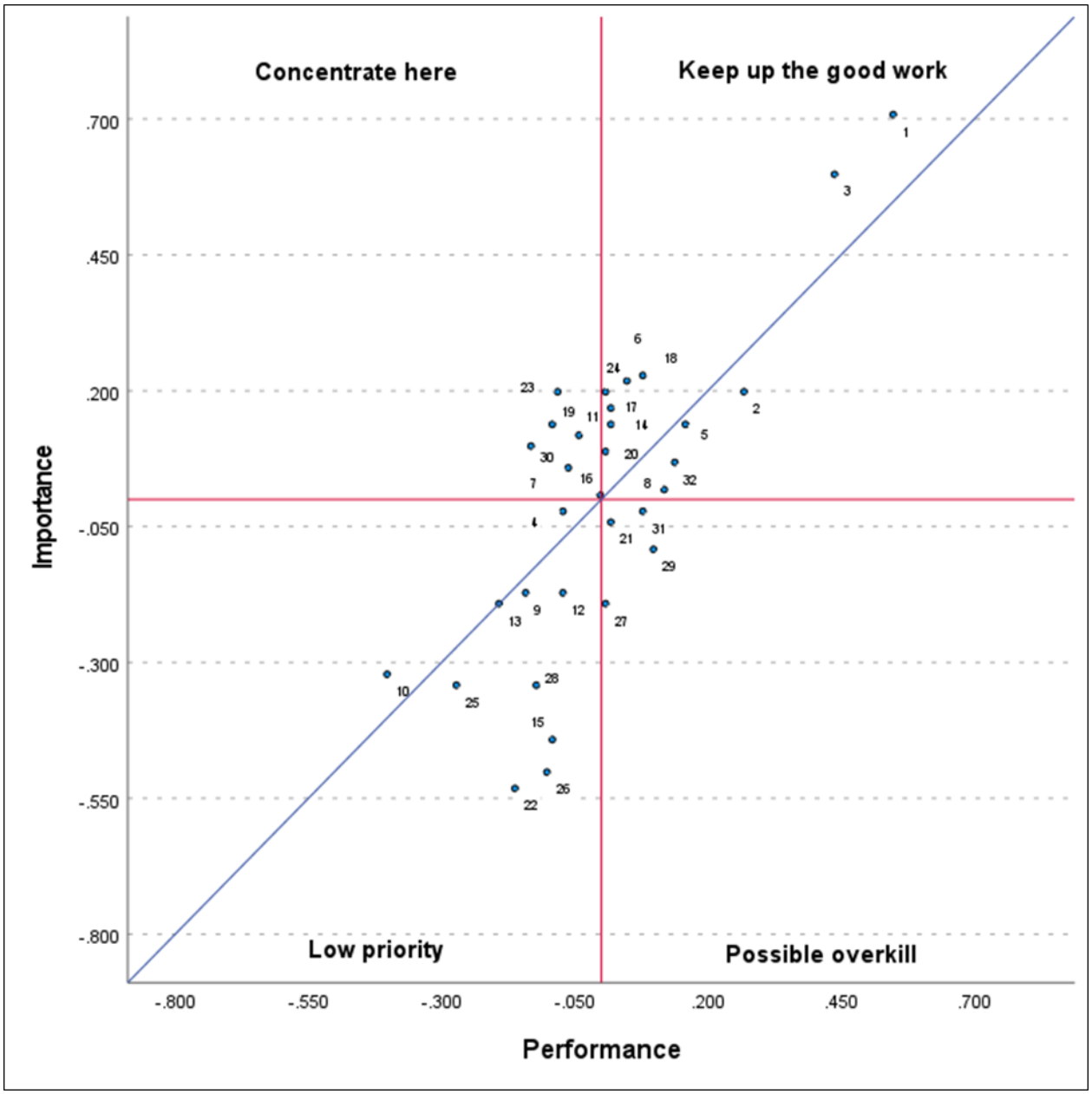

Concentrate here
Keep up the good work
Low priority
Possible overkill
Importance
Performance
1.000
.500
.000
-.500
-1.000
-1.000
-.800
-.600
-.400
-.200
.000
.200
.400
.600
.800
1.000

Figure 4

Importance-Performance Analysis (Canada)



Discussion and Conclusions

Outside of economic variables, secondary indicator analysis showed little agreement between what academic audiences and local leadership view as important. Similarly, it seems that visitors cared more about the environmental aspect of the tourism sustainability than other three sustainability dimensions (socio-economic, cultural, and institutional). This finding is consistent with the literature. For example, previous studies also found that tourists consider environmental attributes more significant than social and economic attributes (Gezici, 2006; Deng & Bender, 2007), suggesting that visitors are more likely to value what they can experience (e.g., rural

authenticity and natural environment) that what local communities can benefit from tourism development (e.g., economic benefits for gateway communities). That said, survey participants from the four market origins did consistently consider the need to improve the well-being of rural communities from tourism development. The lack of agreement between stakeholder groups emphasizes the need for continued education and processes which reconcile the values and perspectives of all stakeholder groups.

Future data analysis will include a formal Delphi study of secondary data indicators relevant to rural tourism systems and additional surveys to compare visitors' with residents' perceptions of tourism sustainability indicators to better understand rural tourism development from both the visitors' and residents' perspectives. Additionally, length of stay and frequency of visits may play role in affecting an individual's judgement (Deng & Bender, 2007) and thus need to be further examined within each group.

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