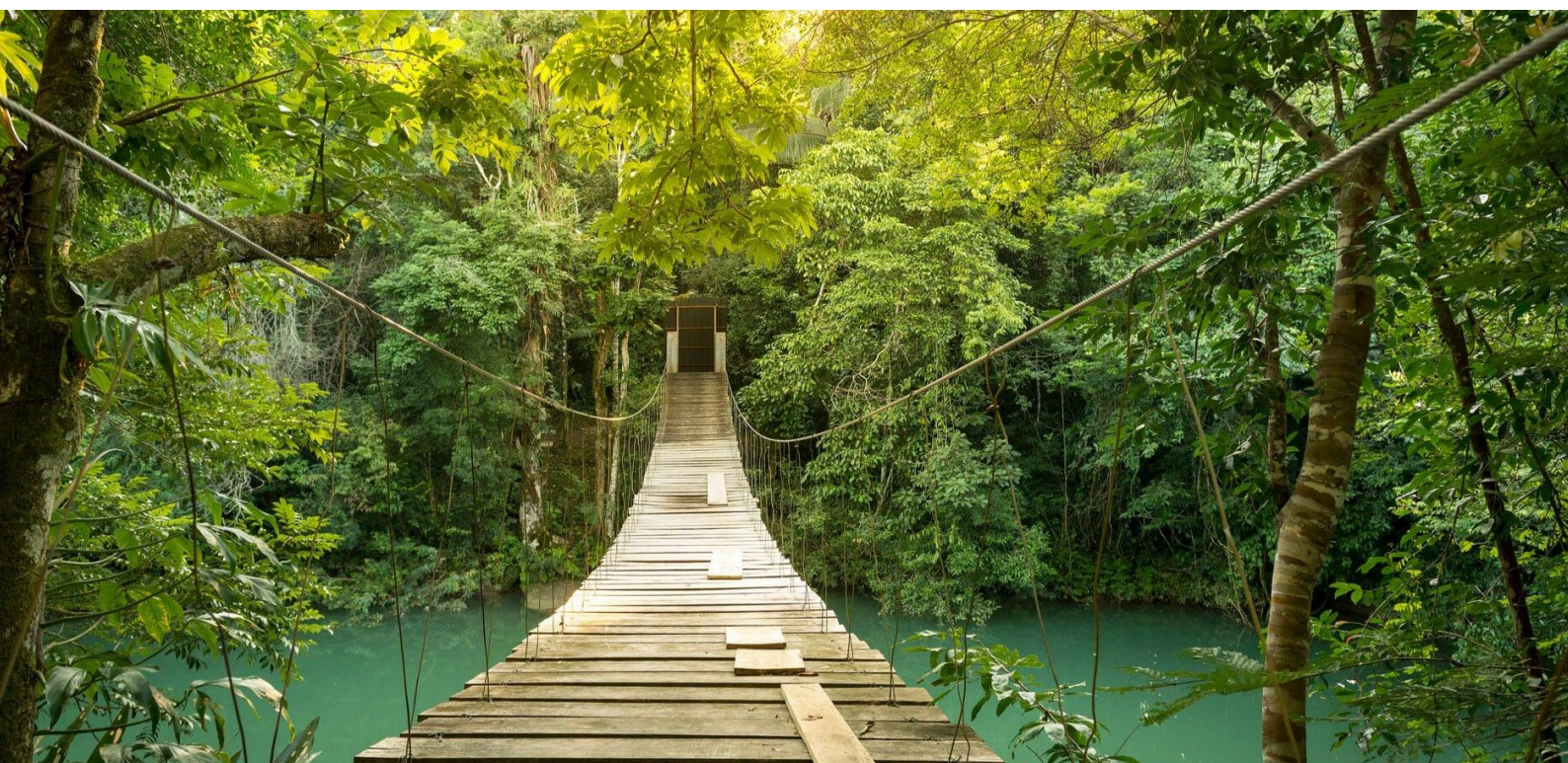


# ANALYZING THE PRECONDITIONS FOR SUCCESSFUL COMMUNITY-BASED ECOTOURISM

BY CONDUCTING A CASE STUDY META-ANALYSIS



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MSc Thesis Sustainable Development

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*“THE ROAD TO SUCCESSFUL COMMUNITY-BASED ECOTOURISM”*

MSc Thesis (45 ECTS)

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## PREFACE

It is my pleasure to present to you my MSc thesis about the preconditions for successful community-based ecotourism. It has been written to fulfill my Master's program Sustainable Development – track Earth System Governance at Utrecht University. However, I am more proud of the contribution this research may provide for the 'outside world', in particular the community-based ecotourism industry. From February 2020 until October 2020, I've been working on this research to explore and analyze the preconditions for the success of community-based ecotourism enterprises and their involved communities. The reason for this subject was raised from my interests in the field of nature conservation, socio-economic development, and environmental governance.

My search for a good match between my interests and supervisor was the reason why I contacted dr. Frank van Laerhoven to assist me during my thesis research. His expertise concerning environmental governance and interests in common-pool resources and socio-ecological systems provided suitable insights to apply to the concept of community-based ecotourism. Together we discussed the opportunities to narrow down my interests which resulted in the subject of this research. To note, one of his funny sayings has stayed with me: "it is not about how many attributes a closet has, but on how well the closet is built" referring to my research. With this in mind, my thesis got automatically structured during the different research phases.

I want to express my gratitude to Frank, for his sublime guidance, comments, and enthusiasm throughout the whole process. I am very pleased with the consultation meetings we had and the support you provided. I would like to thank the people who were willing to participate in the interviews and survey and made time for me, without the insights you provided I couldn't validate my results. Hopefully, better times are coming soon to the tourism industry. Furthermore, I would like to thank dr. Carel van Dieperink, my 2<sup>nd</sup> reader, for making time in his agenda on short notice so I could graduate in October. Lastly, I want to thank my mom for her massive support and her belief in me, this has helped me a lot.

I hope you enjoy reading it!

Simone Lassauw

Schin op Geul, October 2020

*"I want to dedicate this thesis to my dad, who was there in spirit ☆"*

## ABSTRACT

Community-based ecotourism (CBET) is a promising approach to find a balance between nature conservation and socio-economic development. However, CBET from the community's perspective is little understood. Besides, it is still uncertain which preconditions contribute to successful CBET enterprises. In the existing literature, the preconditions are not often explored universally to learn from success stories elsewhere. Therefore, this research used the following research question as a guideline: *What factors contribute to the success of community-based ecotourism?*

A theoretical framework was developed containing 19 critical success factors (CSFs) clustered in six categories. These factors were derived from claims in the existing literature and were applied to 50 CBET case studies to gather insights concerning the relative importance per CSF, the six categories, and additional findings of the CBET definition, missing factors, and configurations. A triangulation of methods was used to create a set of preconditions based on the relative importance of the CSFs. The meta-analysis was used to determine the relative importance by using a coding process. The survey and interviews were conducted as additional methods to validate the outcomes of the coding process.

The results of the relative importance were defined by three components: (1) the frequency of the CSF provided an estimation of the 'relative weight' of each factor; (2) the frequency of codes provided the 'relative direction' indicating if the importance is influenced positively or negatively by each factor; and (3) the frequency of the values indicated the 'relative direction' as well. Eventually, the relative importance was ranked by using different scales in a synthesis.

The main results indicated the factors *accountability*, *autonomy*, *alternative land use resources*, *infrastructure*, and *funding* as relatively important, followed by the other 12 CSFs, and these were validated by the survey and interview responses. The factors *project plans as working document* and *understanding of relevant state policies* were not validated as an important factor and therefore, these two factors were excluded in the set of preconditions.

These findings resulted in the set of preconditions, i.e. set of hypotheses. This set of precondition indicates which CSFs are necessary for developing and sustaining successful CBET. This provided insights to create better conditions for local people and our planet in the context of CBET. Further research is necessary to test the generated hypotheses, to calculate the correlation between the factors and the actual success. But more importantly, the road to successful CBET presented in this research is a reliable first step.

**Keywords:** community-based ecotourism, critical success factors, and the set of preconditions.

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## 1. INTRODUCTION

### 1.1. BACKGROUND AND PROBLEM DEFINITION

One of the biggest concerns is that biodiversity loss leads to crossing one of the planetary boundaries and that poor countries are dealing with the biggest consequences (Lee & Neves, 2009; Steffen et al., 2015; United Nations, 2019). The linkages between poverty, inequality, and environmental degradation have been a serious problem for a long time and therefore a well-balanced solution is needed (Baloch et al., 2020; Barnes et al., 2017; Bennett et al., 2015; Keeble, 1988). Concerning this, several scholars suggest potential approaches such as governing the commons, stakeholder collaboration, sustainable livelihoods, and collective action (Baral & Stern, 2009; Barnes et al., 2017; Hasan et al., 2020; Amanda Lee Stronza, 2010).

Community-based ecotourism (CBET) is suggested as a promising approach for finding a balance between nature conservation and socio-economic development and is as a specific type of community-based enterprises (CBE) (Anup, 2017; Asadi & Kohan, 2011; Ortega-Álvarez & Calderón-Parra, 2020; A. L. Stronza et al., 2019). CBE has emerged from the field of entrepreneurship and sustainability (Berkes & Davidson-Hunt, 2010; Gurău & Dana, 2018; Ortega-Álvarez & Calderón-Parra, 2020; Peredo et al., 2006). They focus on a broader goal instead of being based on utilitarian economics. Their view includes political, social, cultural, environmental, economic, and sustainable perspectives and they focus on opportunities, networks, skills, and knowledge to eventually overcome the challenges of limited resources, institutional constraints, and biodiversity loss (Berkes & Davidson-Hunt, 2010; Gray et al., 2018; McIntosh & Renard, 2010).

CBET is a form of ecotourism linked to community-based development (Denman, 2001). The International Union for the Conservation of Nature (IUCN) defines ecotourism as “environmentally responsible travel and visitation to relatively undisturbed natural areas, to enjoy and appreciate nature that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations” (Haenn et al., 2016, p. 382). Therefore, ecotourism is a development strategy but is missing the capacity-building aspect and planning from the local perspective (Koens et al., 2009).

CBET is therefore seen as a promising solution striving for nature conservation and socio-economic development. The only difference between ecotourism and CBET is that ecotourism is managed by the private sector and assisted by the public sector where needed while CBET is managed by the local communities who control the development of ecotourism through community involvement and participation (Denman, 2001; Snyman, 2017). Through CBET management, the local people get access to the ecotourism benefits rather than experiencing the costs (Denman, 2001; Smit, n.d.). Furthermore, CBET can be seen as a source of conservation funding because the revenues can be used for conservation efforts such as protecting habitats and supporting sustainable trekking. This kind of funding can stimulate local community projects (Grigg, 2016; Gumede & Nzama, 2019; Stronza et al., 2019).

However, organizing ecotourism is difficult because of its challenges in realizing ecological and socio-economic development. The focus is rarely on both aspects (Stronza et al., 2019). CBET is even more difficult to achieve because it is easy to start but hard to sustain which results in unsuccessful CBET (Hamzah & Mohamad, 2012). According to Farrelly (2011), small ecotourism businesses have a high failure rate of 80% even under good market conditions, accessibility, and support. And not always are economic benefits generated for the local people or strong conservation actions implemented (Ohl-Schacherer et al., 2008). Furthermore, ecotourism from the community's perspective is little understood,



and more focus is required on community participation, ownership, management, and empowerment to achieve successful sustainable tourism (Sakata & Prideaux, 2013; Stone, 2015).

By understanding the concept of CBET from the community's perspective, the goal of CBET can be achieved which is to protect and conserve biodiversity and produce socio-economic benefits for local communities (Kiss, 2004). This contribution is linked to the term 'collective action' and is defined as several people working together in a group project to achieve a common objective and share the resulted benefits (Lettinga et al., 2020). Getting communities to engage in collective action instead of private actions is key to the success of community-based (ecotourism) enterprises. This can only be realized when local communities are involved and get the support they need (Barnes et al., 2017; Barnes & van Laerhoven, 2015; Graham et al., 2019; Smit, n.d.).

However, concerning the understanding of CBET, there is still a mismatch between the knowledge provided in the literature and the knowledge required by society (Barnes & van Laerhoven, 2015). There is little evidence of the local communities knowing why their CBET enterprise failed or succeeded (Sakata & Prideaux, 2013). The initiatives are not learning enough from the success stories elsewhere and it is still uncertain which preconditions contribute to successful community-based ecotourism enterprises because of the dependency on local circumstances and their changes over time (Denman, 2001; Ngece, 2002; Romero-Brito et al., 2016). This mismatch in knowledge and ignorance of the preconditions is the knowledge gap for this research.

To highlight, it is necessary to explore what preconditions are important to address for the success of CBET enterprises. Therefore, to contribute to filling this knowledge gap and have a better understanding of the existing problems concerning CBET, exploratory research is conducted. The purpose of this research is to examine the preconditions for successful CBET by using a newly developed theoretical framework addressing the critical success factors (see section 2.2.1.) that were derived from previous studies about several concepts in the field of entrepreneurship, tourism, governance, and sustainability.

## 1.2. RESEARCH OBJECTIVE, AND MAIN QUESTION

The objective of this research is to provide explorative knowledge concerning critical success factors. This knowledge identified which factors are suitable as a precondition in the context of successful CBET. This contributes to the existing literature by providing insights from an enterprise's- and the community's perspective to decrease the knowledge gap described above.

This research aims (1) to create a set of preconditions for successful community-based ecotourism by analyzing the relative importance of the critical success factors and (2) to make recommendations based on the set of preconditions to endeavoring successful community-based ecotourism by applying the developed theoretical framework on a case study meta-analysis. Eventually, this set of precondition generates hypotheses for further research. Furthermore, (3) additional findings were found by the case study meta-analysis to make recommendations. These findings are related to the CBET definition, missing factors, and interlinkages for identifying configurations (clusters of CSFs). As guidelines through this research, the following research question (RQ) was used: ***What factors contribute to the success of community-based ecotourism?***

To produce relevant insights to answer this question, this research analyzed a large-N of explicit CBET case studies to summarize the data via a quantitative case study meta-analysis which is seen as an efficient method to gain new insights that can provide scientific relevance for further research (Mengist et al., 2020). The new insights are gained by the theoretical framework that has been developed based on existing literature about various topics that are directly or indirectly related to community-

based ecotourism, e.g. collective action and conservation projects. This framework contains 19 critical success factors (CSFs), which are important to achieve successful community-based initiatives and were used to analyze the preconditions for successful CBET. The CSFs were checked if they indicate the success of CBET based on their ‘relative weight’ and ‘direction’ to the success of CBET. This was identified by looking at the frequency of CSFs, codes, and values explained in Chapter 3. Next, this framework was used in the case study meta-analysis which “can help to generate more precise estimates on the topic under study” by comparing and analyzing different case studies (Mengist et al., 2020, p. 2). Since the theoretical framework has never been applied, testing the framework on a broad set of case studies provided new insights into the relative importance of the CSFs.

### 1.3. RESEARCH FRAMEWORK AND SUB-QUESTIONS

To answer the main question and illustrate the broad lines of how the research objective was achieved, a research framework based on Verschuren & Doorewaard (2010) is shown in Figure 1.

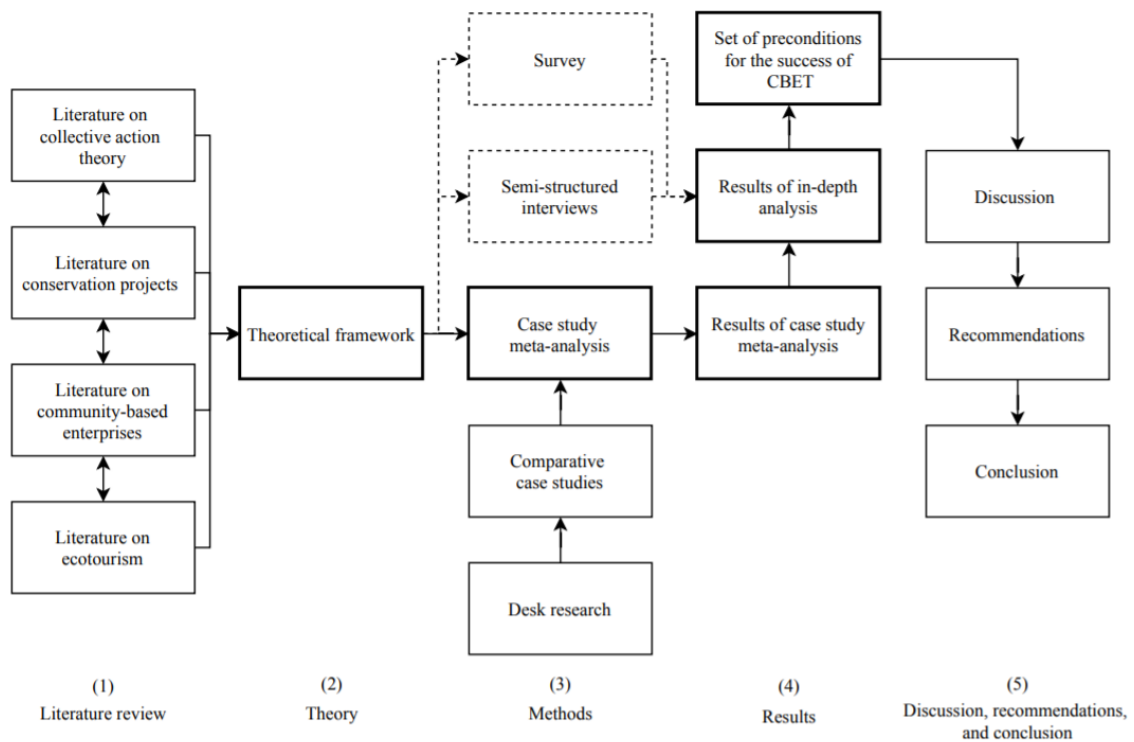


Figure 1. Research framework. The boxes with bold lines are representing the focus of this research, namely applying the CSFs to the study meta-analysis to create the set of preconditions. The survey and semi-structured interviews are presented with dotted lines to emphasize that these results were used as additional methods for validation.

This research framework is a schematic representation of the five different steps that were taken to achieve the objective. Firstly, a literature review provided the input for the current state of the art (see Appendix I). This review addressed a broad set of CSFs from different topics that were found in Google Scholar and the UU library. Secondly, based on this review, a theoretical framework was developed. This list of factors has been narrowed down by looking at the frequency. The selected factors were then applied to different case studies in step 3 by conducting a case study meta-analysis. The case studies were derived from desk research and compared to each other to remove double cases and to exclude cases that were not suited for the analysis. Missing data were collected by asking questions that were

structured by the theoretical framework in semi-structured interviews and a survey. These two methods were applied to validate the case study meta-analysis and to provide additional information for the in-depth analysis. Step 4 shows the results of the case study meta-analysis and in-depth analysis to provide the set of preconditions and eventually answer the RQ. Step 5 provides the discussion followed by the recommendations on how to endeavor community-based ecotourism, useful e.g. external actors and new initiatives, and ends with the conclusion.

The research framework was used to achieve the aim of this research. However, as guidelines through this research, a few sub-questions were used as steps to answer the main question and to make recommendations. These are as follows:

- (1) What are the critical success factors for CBET enterprises when looking at different concepts in the field of entrepreneurship, tourism, governance, and sustainability?
- (2) What are the scores of the critical success factors resulting from the case study meta-analysis?
- (3) What is the relative importance of the critical success factors looking at the ‘relative weight’?
- (4) How is the relative importance influenced by the outcomes of the critical success factors looking at the ‘relative direction’?
- (5) To what extent are the analyzed case studies addressing CBET, missing factors, and interlinkages between the CSFs?
- (6) What recommendations can be made based on the results?

#### 1.4. SCIENTIFIC AND SOCIETAL RELEVANCE

The background and problem definition already highlight the knowledge gap indicating that further scientific research should analyze the success of CBET and what preconditions contribute to this. However, the preconditions are often explained for a specific case study (Jamaliah & Powell, 2018). For example, Parker & Khare (2005) attempted to create a framework for understanding the critical success factors for ecotourism in Southern Africa. But “there is limited research that focuses on evaluating the conditions needed to develop tourism systems that are resilient and adaptive to an uncertain future” (Jamaliah & Powell, 2018, p. 519). In earlier research, only a few researchers used a meta-analysis for identifying the success factors in the field of CBET (Fiorello & Bo, 2012; Musavengane & Simatele, 2017; Rhama, 2020; Romero-Brito et al., 2016; Stanley, 2014; Wondirad, 2019). But none of these studies present a set of preconditions for the success of CBET enterprises. A new theoretical body of knowledge on this topic can solve this problem which explains the reasoning for this exploratory research and why it is relevant in the field of science.

Next to this, CBET is an alternative approach for an equal distribution of tourism benefits and encompasses sustainable, environmental, cultural, and social components (Mtapuri & Giampiccoli, 2019). This approach contributes to the reduction of poverty, increase socio-economic development, and ensures nature conservation (Anup, 2017; Holden, 2010). Furthermore, several Sustainable Development Goals (SDGs) are addressed: the goals ‘life on land’ and ‘sustainable cities and communities’ (United Nations, 2020). However, an increase in awareness is necessary for the sustainable needs that conservation projects such as community-based ecotourism can promote (Heil, 2017). Therefore, this research is relevant to address social problems as well. By looking at the preconditions of successful community-based ecotourism, new insights can contribute to the actions for sustainability.

## 1.5. SCOPE OF THE RESEARCH

Community-based ecotourism is a complex phenomenon and is often analyzed in existing research. This approach addresses a wide orientation within the fields of entrepreneurship, sustainability, governance, and tourism. To define the theoretical framework, these fields were narrowed down into different concepts, namely collective action, conservation projects, community-based enterprises, and ecotourism, and resulted in the CSFs presented in the theoretical framework. These CSFs were analyzed within the case study meta-analysis to define the importance of these factors for the success of CBET. It was therefore not the goal to derive the CSFs from the case study-meta analysis as expected and already existing in the current literature, but to test the CSFs from the theoretical framework on the case study meta-analysis to determine the preconditions for successful CBET innovatively. The factors are thus not derived from the case studies. More importantly, the case study meta-analysis is the basis of in-depth analysis and synthesis and therefore the main focus of this research.

The case study meta-analysis has been delineated to determine the bandwidth for the case studies since it is difficult to compare apples and oranges. Each case study has been investigated by a different researcher. Therefore, different approaches, research questions, methods, and CBET definitions were found in the case studies. To deal with these differences, this research applied criteria to the CBET definition to analyze this definition in a certain context and eliminate case studies that were not suitable for the analysis. Eventually, the case study selection ensured the delimitation which is explained in chapter three. This created the possibility to generalize the outcomes of the case study meta-analysis. However, standardization was not possible for the CBET definition. However, an attempt has been done and these results are used as an addition for making recommendations.

Lastly, community-based ecotourism includes a varying number and types of stakeholders such as non-governmental organizations, governmental authorities, local communities, tourists, tourism agencies, and project initiatives to name a few. For this research, the focus is on the CBET enterprises and their involved community, therefore the external actors such as the NGOs and government are excluded from the analysis. The focus is put on the local communities and their enterprise to provide a more detailed overview of preconditions within the given time frame of this research.

## 1.6. OUTLINE

This research is structured as follows. Firstly, chapter two describes the theoretical background explaining the important concepts and definitions, the CBET criteria, the critical success factors (CSFs), and the theoretical framework. Secondly, chapter three explains the case study meta-analysis, the case study selection, the coding process, in-depth analysis, and synthesis. Furthermore, this section explains which methods were used to obtain the data and these are the case study meta-analysis including desk research, semi-structured interviews, and survey. Thirdly, chapter four provides the results of the case study meta-analysis, the in-depth analysis, the synthesis, and the definition of CBET. Fourthly, chapter five presents the discussion wherein innovative aspects are highlighted and unexpected results, theoretical implications, and limitations of the research are discussed. Fifthly, in chapter six are the main and sub-questions answered in the conclusion. Lastly, in chapter seven, the recommendations for policy implications and further research are presented and are followed by the references and appendices.

## 2. THEORETICAL BACKGROUND

For this research, a theoretical framework was developed to analyze which of the CSFs are important to achieve successful CBET and eventually to provide the set of preconditions for successful CBET enterprises. This framework was developed based on existing literature addressing several CSFs related to collective action, conservation projects, community-based enterprises, and ecotourism. By combining these topics, a broader/comprehensive/holistic framework was developed to apply on sustainable issues regarding the success of CBET.

The following sections provide a better understanding of the scope of the research. In section 2.1., the concepts and definitions are described, including the CBET criteria. Section 2.2. explains how the theoretical framework was developed, including the CSFs. Eventually, the CSFs are visualized in the theoretical framework presented in section 2.3.

### 2.1. CONCEPTS AND DEFINITIONS

#### 2.1.1. MAIN CONCEPTS AND DEFINITIONS

The research started with a literature review to derive the CSFs for the theoretical framework. There were four fields used as a starting point to obtain relevant background information, namely sustainability, entrepreneurship, governance, and tourism. These fields were narrowed down to four main topics from which the CSFs were derived (see Figure 2). Three topics are already explained in section 1.1., which are community-based enterprises, ecotourism, and collective action. The last topic, conservation projects are projects focusing on the sustainable use of natural resources and the protection of biodiversity, i.e. wildlife, endangered species, and critical places dealing with environmental destruction (National Geographic, 2019; World Wide Fund For Nature, n.d.).

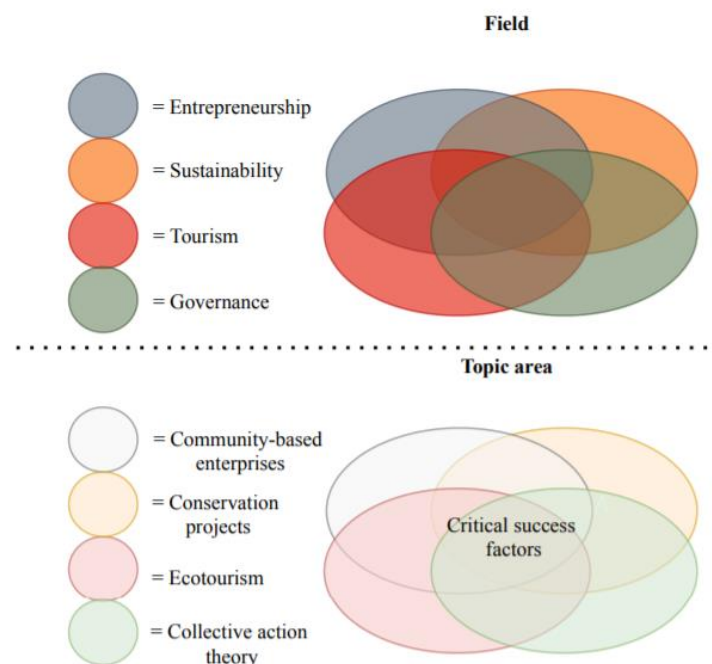


Figure 2. Scope of literature review.

The key concepts for this research are CBET, the CSFs, and the set of preconditions. The CSFs are the independent variables contributing to the success of community-based enterprises. The dependent variable is the actual success of CBET enterprises. The set of preconditions included the CSFs contributing to the success of CBET enterprises. A distinction has been made between the focus of this research (i.e. set of preconditions) and further research (i.e. correlation between dependent and independent variables) since it was not possible to correlate the CSFs with the actual success of CBET enterprises within this time scope and due to the complexity of the case studies, e.g. no standardization possible. Furthermore, community-based ecotourism is entangled in the key concepts.

To elaborate on the concept of community-based ecotourism, it must be clear what ecotourism exactly is and is therefore defined by the following three core criteria: “(1) attractions should be predominantly nature-based; (2) visitor interactions with those attractions should be focused on learning or education; and (3) experience and product management should follow principles and practices associated with ecological, socio-cultural and economic sustainability” (Reimer & Walter, 2013, p. 122).

Furthermore, ecotourism contains several characteristics that also apply to community-based ecotourism: (a) travel to vulnerable and mostly protected areas; (b) strives to be low impact and small scale; (c) educates the tourist; (d) provides funds for nature conservation; (e) provides benefits for socio-economic development and political empowerment; and (f) promotes to respect the norms and values from different cultures (Parker & Khare, 2005).

For this research, community-based enterprises and ecotourism are combined into the concept of CBET. The following general definition was used as a foundation to understand the concept of CBET. This definition was used due to the broad definitions described in the different case studies.

*“A form of ecotourism where the local community has substantial control over, and involvement in, its development and management, and a major proportion of the benefits remain within the community. How the community is defined will depend on the social and institutional structures in the area concerned, but the definition implies some kind of collective responsibility and approval by representative bodies” (Denman, 2001).*

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### 2.1.1.2. COMMUNITY-BASED ECOTOURISM CRITERIA

Community-based ecotourism is often discussed in the existing literature. According to Reimer & Walter (2013) contains CBET four specific characteristics: “(a) principles of local participation, control or ownership of ecotourism initiatives; (b) a focus on environmental conservation and local livelihood benefits; (c) the promotion of customary and indigenous cultures; (d) the promotion of local and indigenous human rights and sovereignty over traditional territories and resources” (p. 123). However, it is still not obvious how to recognize community-based ecotourism in practice (Reimer & Walter, 2013). Therefore Reimer & Walter (2013, p. 125) found seven components as a result:

- (1) Involves travel to natural destinations;
- (2) Minimizes impact;
- (3) Builds environmental awareness;
- (4) Provides direct financial benefits for conservation;
- (5) Provides financial benefits and empowerment for local people;
- (6) Respects local culture; and
- (7) Supports human rights and democratic movements.

These components are justified in the case of Chi phat, in Cambodia, and therefore very specific which created the possibility that other case studies fell outside the boundaries of this research. Therefore, the components were revised into seven generalized criteria to analyze the definitions of CBET addressed in the different case studies (see Table 1).

Table 1. List of general criteria for analyzing the definition of community-based ecotourism, based on the components from Reimer & Walter (2013).

<b>Criteria</b>	<b>Description</b>
(1) Involves travel to natural destinations	<i>Involves travel to natural destination</i> means the CBET enterprise is located in a natural area under national/private, communal, or international protection and includes wilderness areas and ecotourism attractions.
(2) Minimizes impacts	<i>Minimizes impact</i> refers to low environmental impacts and ecotourism effects by the tourists, the tourism industry, and/or communities. Some examples are the amount of litter in the environment, the amount of erosion due to infrastructure, if tourists cut wood for own use, and if the accommodations use recycled local building materials and/or renewable energy.
(3) Builds environmental awareness	<i>Builds environmental awareness</i> is based on the opportunity to learn about the people and place. This may ensure that local people and ecotourists become more aware of their actions and impacts. The CBET enterprises should provide these opportunities by, for example, offering guides, workshops, internet sites providing extensive information about the area.
(4) Provides benefits for conservation	<i>Provides benefits for conservation</i> means that CBET contributes to the protection of nature. This is often linked to environmental awareness and financial benefits such as park entrance fees, funds, voluntary donations and conservation levies or indirectly gaining income for conservation from accommodations, restaurants, transport and guiding services.
(5) Provides benefits (and empowerment) for local people	<i>Provides benefits (and empowerment) for local people</i> is related to the directly gained economic incentives from accommodations, restaurants, transport, and guiding services related to CBET as an alternative resource. Other benefits are provided in the form of empowering, opportunities for leadership skills and management skills, and market options to increase the tourism industry.
(6) Involves the local culture	<i>Involves the local culture</i> refers to the indigenous cultures addressed in CBET. For example, traditional dances or food workshops are offered as a touristic activity. Therefore, the cultural norms and values should be taken into account and respected by the tourists.
(7) Supports human rights and land rights	<i>Supports human rights and land rights</i> means that CBET takes the human rights into account. Especially since the politics of CBET are seen as international development and the competition over land- and resource rights can result in conflicts. This can influence the role of ecotourism in a country.

## 2.2. BUILDING A THEORETICAL FRAMEWORK

The concepts and topics are described in section 2.1.1. were used as keywords to search for critical success factors in the existing literature. To find such possible factors, a systematic literature review was used containing five steps, shown in Figure 3 (Khan et al., 2003). A complete overview of used sources is shown in the reference column in Table 2.

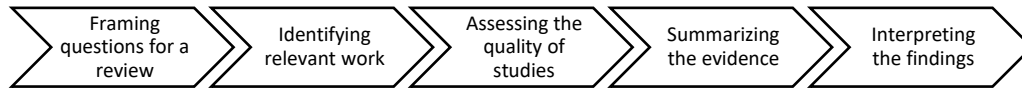


Figure 3. Steps to conduct a literature review.

To develop the theoretical framework, six steps were used in defining the CSFs and are as follows:

- (1) Search for claims and/or descriptions on critical success factors, failures, and challenges;
- (2) Define the most common critical success factor by counting the frequency of factors.;
- (3) Create the list of CSFs, which are expected to contribute to the success of CBET;
- (4) Narrow down this list by excluding the factors that were mentioned once;
- (5) Briefly explain the critical success factors (see the description in Table 2); and
- (6) Create a theoretical framework based on the final list of CSFs (see section 2.3).

For step 2, clustering has been carried out and is based on the article from Agrawal (2001). According to Agrawal (2001), many factors remain vague and unclear because of the generalization of terms and definitions. Existing work highlights the success factors of a specific topic, however, it is still uncommon to connect the different variables identified in causal chains. This indicates that models remain incomplete and conclusions are based on the specific studied sample, rather than applying the success factors more generally. Therefore, Agrawal (2001) suggested to cluster and classify the different variables. The structure of Agrawal's clustering is derived based on similar strategies from comprehensive studies by Elinor Ostrom, Robert Wade, and Jean-Marie Baland, and Jean-Phillipe Platteau, and he combined these studies for his cluster process.

Based on his clustering, Agrawal (2001) defined five categories (i.e. the first five in the enumeration), which are useful in creating a research design, case selection, and/or data collection. More importantly, the five categories were suitable to apply to the CBET enterprises, but they remain incomplete. Therefore, this research extended the clustering with one more category: support activities. This category 6 was added to analyze the kind of support external actors and the communities provide and are useful to gain insights on how to define the recommendations for, for example, external actors or new initiatives. To conclude, there are six categories used to identify the selected CSFs.

- (1) Resource system characteristics;
- (2) Group characteristics;
- (3) Relationship between resource system characteristics and group characteristics;
- (4) Institutional arrangements;
- (5) External environment including technology, market, and state characteristics; and
- (6) Support activities.



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### 2.2.1. FINAL CLUSTERING

In total there were 19 critical success factors expected to be suitable for this research based on the six categories described above. Since the scope of the research is on the enterprises and their involved communities, the CSFs are only linked to the enterprise and community and not to other stakeholders such as NGOs, governmental authorities, etc. However, other stakeholders may be indirectly involved for example by funding or providing trainings.

Another aspect to note, the factors were analyzed separately and per-category but no clustering is defined between the CSFs. However, several interlinkages were recognized by analyzing the CSFs in the case studies. These interlinkages indicate that identifying configurations is a next step to look at in further research. This will increase the insights in necessary preconditions for success. The research from According to Baggio et al. (2016), identified configurations for successful common-pool resources to identify the combined positive effects of conditions and therefore a suitable guideline to follow. However, before configurations can be made, the preconditions must be identified and therefore the used scope in this research.

The CSFs were ordered into the six categories which are visible in Table 2. This list describes each factor to explain its meaning and understanding. Table 2 gives a brief overview of the selected factors and why these are relevant. More importantly, these factors are selected for defining the preconditions for successful community-based ecotourism and answers to sub-question one.

Table 2. Final clustering of the CSFs per category, including their description and references.

Category	Critical success factor(s)	Description	Reference(s)
1. Resource system characteristics	Infrastructure	<i>Resource system characteristics</i> refer to infrastructure such as transport, food, and water and accommodation facilities in the area. They refer to the attractiveness of the environment which is related to the willingness to pay by the tourists to go on holiday in the specific area or how satisfied the tourist are with their stay. Lastly, they refer to the alternative land use resources where the local people live on, e.g. agriculture, hunting, or natural resources.	Gruber et al. (2018); Hasan et al. (2020); Parker & Khare (2005)
	Attractiveness of the environment		
	Alternative land use resources		
2. Group characteristics	Appropriate leadership	<i>Group characteristics</i> refer to the existence of appropriate leadership in the area. They refer to the awareness and knowledge of the CBET initiative and how it's managed which means that the enterprise and community are aware of the activities and rules and understand them. Another factor is the local interests and motivation of the enterprise and community. Furthermore, the cultural and socio-economic differences should be in harmony, which means that the norms and values of the enterprise and community are taken into account.	Barnes & van Laerhoven (2015); Dodds et al. (2018); Hamzah & Mohamad (2012); Hasan et al. (2020); Manyara & Jones (2007); Ofori (2013); Runhaar & Polman (2018); Smit (n.d.); Sterling et al. (2017); Thakadu (2005)
	Wide awareness and knowledge of the initiative		
	Local interests and motivation		
	Cultural and socio-economic differences in harmony		
3. Relationship between 1. and 2.	Fair allocation of benefits	<i>The relationship between resource system characteristics and group characteristics</i> refers to the allocation of benefits which must be fair otherwise it will lead to conflicts.	Hasan et al. (2020); Parker & Khare (2005)
4. Institutional arrangements	Accountability	<i>Institutional arrangements</i> refer to the accountability of the project. Is the project still in the hands of the national authorities or does the local community have responsibilities for actions and activities? They refer as well to the communication throughout the project. For example, are there regular meetings to inform the community? Is its project mission and objectives clear for the enterprise and community? They refer as well to rule enforcement and appropriate rules-in-one. This means that the rules are simple and easy to understand for everyone and that there is a good enforcement system. Furthermore, the community should collaborate and participate in decision-making to include their view and opinion.	Barnes & van Laerhoven (2015); Clarke (1999); De Koning et al. (2017); Hasan et al. (2020); Ofori (2013); Runhaar & Polman (2018); Smit (n.d.); Thakadu (2005); WONDIRAD et al. (2020)
	Communication throughout the project		
	Rule enforcement and appropriate rules-in-one		
	Collaboration and participation in decision-making		
5. External environment	Understanding of relevant state policies	<i>External environment</i> refers to technology, state, and market factors. The enterprise and community should understand the relevant state policies to understand the rules, amendments, entitlements, and responsibilities	Barnes & van Laerhoven (2015); Clarke (1999); Gruber et al. (2018); Hasan et al. (2020); Lee & Bond
	Monitoring and feedback		

	<p>Changes in biodiversity</p> <hr/> <p>Using project plans as working document</p>	<p>concerning the management of CBET. Monitoring and evaluating the project's outcomes over a certain period can give insights into the dilemmas and provide feedback. Especially long-term monitoring and local monitoring are necessary to provide accurate feedback. Changes in biodiversity refer to positive outcomes on biodiversity such as protecting species or less litter in the environment. Using project plans as a working document to update the enterprise and community. Especially because project requirements may change during the years and updates are regularly needed.</p>	<p>(2018); Ofori (2013); Yalegama et al. (2016)</p>
6. Support activities	<p>Trainings</p> <hr/> <p>Funding</p> <hr/> <p>Autonomy</p>	<p><i>Support activities</i> refer to training in, for example, leadership, hospitality, and communication within the CBET industry. They refer to funding, e.g. by the government or donors, to facilitate the enterprise and community to maintain the implemented projects in villages. Lastly, they refer to autonomy (self-governance) which is important to realize bottom-up project initiations and participatory planning.</p>	<p>Barnes &amp; van Laerhoven (2015); Catalano et al. (2019); Dodds et al. (2018); Gruber et al. (2018); Hasan et al. (2020). Measham &amp; Lumbasi (2013); Parker &amp; Khare (2005); Smit (n.d.); Yalegama et al. (2016)</p>

### 2.3. THEORETICAL FRAMEWORK

The CSFs described in the section above are summarized in one theoretical framework (see Figure 4). By looking at these factors, new insights were gained for defining the preconditions for the success of CBET. The framework contains two boxes; critical success factors related to community-based ecotourism enterprises and critical success factors related to the support of external actors and communities. These boxes are connected by an arrow because the support activities provided by external actors or community (may) influence the success of CBET. Eventually, this framework is used as a guideline to find answers to the research question and sub-questions 2 – 6.

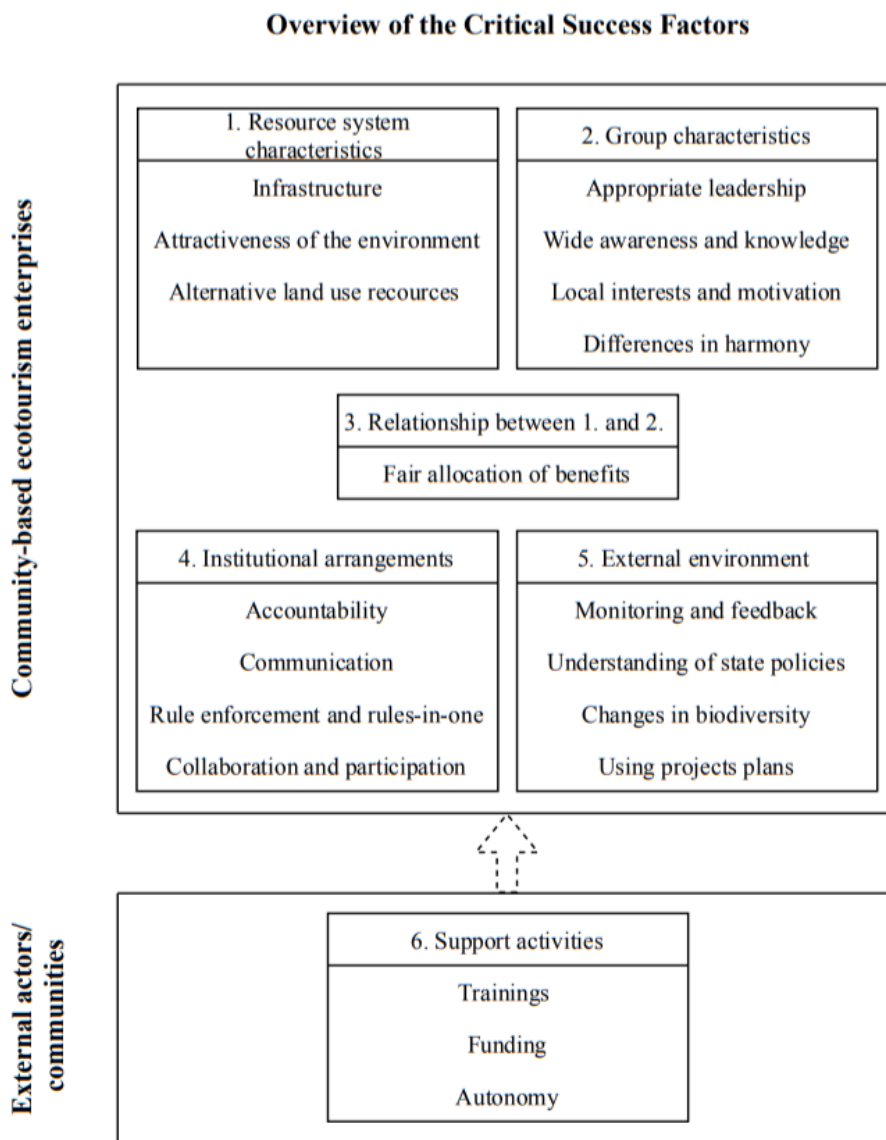


Figure 4. Theoretical framework illustrating the critical success factors of community-based ecotourism enterprises and external actors/communities per category. The striped arrow in the middle of the boxes means that the support activities (may) influence CBET.

### 3. RESEARCH METHODS

The purpose of this research is to examine the preconditions for the success of CBET enterprises. This chapter describes what research methods were used for collecting and analyzing the data, why these methods were used, which type of data was collected, how this data was collected, and which sources were used. Furthermore, this chapter explains how the concepts were measured and how the data were analyzed. To highlight, the reliability, suitability, and validity of the methods are addressed and the contribution to answering the RQ.

The chapter is divided into five sections structured following the mixed-method approach, indicating that both quantitative and qualitative methods were used. This is further elaborated in the sections. The common thread of the used methods is that it must examine the importance of the factors to identify the set of preconditions. Firstly, section 3.1. describes the case study meta-analysis which is the main focus of this research. Secondly, the selection of the case studies is presented in section 3.2. Thirdly, how the concepts were measured is explained by the operationalization in section 3.3. Fourthly, section 3.4 explains what data is collected and what data collection methods were used. Lastly, which analyses were used and how these were applied to the data is described in section 3.5.

#### 3.1. CASE STUDY META-ANALYSIS

Often, case studies are used to illustrate the outcomes of community-based ecotourism in practice and provide in-depth information on a specific case (Verschuren & Doorewaard, 2010). By comparing a substantial set of case studies within a meta-analysis and applying the critical success factors on this meta-analysis, the theoretical framework was tested, learnings were derived from what is already done in the field, and new insights were gained (Ullah et al., 2017).

A quantitative meta-analysis was conducted to combine the results from multiple empirical studies and to summarize and analyze the case studies addressing CBET (Bryman, 2012; Mengist et al., 2020). This meta-analysis is a useful method to generate the data more accurately on a specific topic under study (Mengist et al., 2020). The generalization increased external validity (Bryman, 2012). It is reliable in dealing with a large dataset on secondary data where necessary information is missing or not certain enough (Baggio et al., 2016). Furthermore, it is already used in existing literature concerning CBET and therefore a suitable method for this research (Fiorello & Bo, 2012; Musavengane & Simatele, 2017; Rhama, 2020; Romero-Brito et al., 2016; Stanley, 2014; Wondirad, 2019).

To conduct this case study meta-analysis, several steps were followed which are based on the article of Mengist et al. (2020), wherein a literature review is combined with a quantitative meta-analysis and is therefore justified for this research. Firstly, the scope of the research was defined. In this case, the unit of analysis is community-based ecotourism. Secondly, suitable CSFs were defined and visualized in the theoretical framework. Thirdly, the strategy was defined. In this case, the comparative case study strategy was used to compare the studies to define the overarching characteristics (Yin, 2003). Fourthly, the case studies were found by carrying out desk research and selected based on the case study selection criteria. Fifthly, a synthesis was conducted in Excel to extract the data by using the coding steps to categorize the data and then using the coding process to score the data. Lastly, the scores were analyzed to extract meaningful information about CSFs. How the outcomes of the case meta-analysis were analyzed is described in section 3.5.1.

## 3.2. CASE STUDY SELECTION

For this research, a large-N of case studies were found increasing the external validity (Bryman, 2012). To highlight, the case study meta-analysis started with 56 articles, papers, and book chapters addressing single and comparative, quantitative, and qualitative cases. In total there were 87 different case studies discussed. Initially, these cases seemed suitable for the meta-analysis. But when looking at these cases in more detail, differences became visible. Therefore, the Case Study Selection Criteria were used to define the suitable cases (see section 3.2.1.) and a comparative case study strategy was used to identify the Case Study Characteristics (see section 3.2.2.).

### 3.2.1. CASE STUDY SELECTION CRITERIA

To narrow down the scope of the case studies and only include appropriate case studies, six case study selection (CSS) criteria were used (see Table 3). These criteria fit the research objective and help to find suitable case studies within the given amount of time for this research. However, there is a change that survival bias occurs which is a type of selection bias (Morgenstern, 2018). This means that only successful cases are found in the literature. Cases that are not successful are not valuable for research and often do not exist anymore due to their failures. This was taken into account when analyzing the case studies by CSS criteria 6. Furthermore, the CSS criteria ensured consistency when selecting the cases and therefore increased the reliability (Bryman, 2012).

Eventually, a total of 50 case studies were selected based on the six CSS criteria (see Table 3). These 50 case studies were derived from 33 articles, papers, and book chapters and excluded BSc- and MSc theses, and Ph.D. research, joint projects, and working papers to ensure quality empirical data. Furthermore, case studies that were described as developing stage or when the case studies is a challenging, potential, or promising initiative was excluded and articles, papers, or book chapters addressing the same CBET enterprise as already found emerged into one case study.

To highlight, the 50 case studies contained all six CCS criteria and were therefore used for the case-study meta-analysis to extend the existing theories concerning the success factors for CBET, to test the theoretical framework more precisely, and gain more insights for defining the preconditions. A detailed overview of the case studies is presented in Appendix II.

Table 3. Case Study Selection Criteria.

<b>Criteria list</b>
1. The case study is described in an article, paper, or book chapter extracted from Google Scholar.
2. The topic addressed in the case study article, paper, or book chapter is explicit CBET. Other related topics such as tourism, ecotourism, natural resource management were not included.
3. The location of the case study is in a conservation area, national park, island, forest, mountain, or other kinds of a protected area.
4. The case study involves biodiversity protection and/or conservation.
5. The case study involves socio-economic development (e.g. poverty reduction).
6. The factors, conditions or other components analyzed in the case study lead to success, challenges, or failure of the CBET enterprise.

### 3.2.2. CASE STUDY CHARACTERISTICS

The comparative case study strategy from Yin (2003) was used to compare the studies to define the overarching characteristics. The main characteristics that are useful to understand the boundaries of the case studies emerged from comparing the similarities and differences of the cases and were found as overarching aspects. More importantly, these characteristics provide some general information and validate the outcomes of the case study meta-analysis since a broad perspective of case studies has been included. The found characteristics include: a specific form of case study, location of case study, distribution of locations, and involved stakeholders and provided the following information about the case studies.

All cases address CBET, however, some case studies describe the involved community while others mentioned different forms of enterprises. These are a community, village, project, network, homestay, sanctuary, eco-trek, lodge, camp, organization, company, association, site, and national park. No division was made between these forms and are included to make sure that the results apply to different kinds of cases.

Looking at the locations of these case studies, all cases are located in a conservation area under protection. However, a distinction was made between these locations whereby the areas are divided into (rain)forests, coastlines and wetlands, islands, game- and biosphere reserves, mountains, and (wildlife) national parks. Furthermore, the case study locations are distributed worldwide. Most of them are noteworthy located close to the equator in Central-America, Asia, and Africa but they are still widespread divided among the continents Asia, Africa, North-America, South-America, Europe, and Oceania (see Map 1).

The last characteristics address the involved stakeholders. Even though this research focused on the enterprise and community, the case studies itself presented different external actors as stakeholders that were a part of the CBET industry. Notable is that from the 50 case studies, 29 case studies addressed several types of external actors that contributed to the success of CBET by, for example, providing funds, giving trainings, or helping in the management. Most of these external actors are NGOs, governmental authorities, foundations and trusts, associations, tourism companies, and other projects.



Map 2. Overview of case study locations. A map is created with Google My Maps. Note that all 50 case studies are pinned on the map but not all are visible. The worldview display ensures that some location pins are overlapping when they are closely located to each other. Therefore, the map still shows the distribution of all case studies.

### 3.3. OPERATIONALIZATION

#### 3.3.1. THE CRITICAL SUCCESS FACTORS

The CSFs were operationalized by looking at specific keywords. If a paragraph in the case study describes or mentions one of the keywords, it means that the paragraph explained some information about the related CSF. Table 4 summarizes which keywords were used for each CSF. By using these keywords for searching the CSFs in the case studies, a consistent structure is applied to the case studies which increases the reliability (Bryman, 2012).

Table 4. Operationalization.

<b>Category</b>	<b>Critical Success Factor</b>	<b>Keyword</b>
1. Resource system characteristics	Infrastructure	Transport, airport, roads, park, accommodation, lodges, homestays, restaurants, supermarket, provision
	Attractiveness of the environment	Willingness to pay, tourist's joy, tourist's satisfaction, tourist's perception, tourist's attitude
	Alternative land use resources	Natural resources, agriculture, hunting
2. Group characteristics	Appropriate leadership	Leadership, chairman, chief
	Wide awareness and knowledge of the initiative	Knowledge, learning, educate, inform, awareness
	Local interests and motivation	Interest, motivation, attitude, willingness to participate, joy, satisfaction
	Cultural and socio-economic differences in harmony	Norms, values, discrimination, competition, corruption, cultural impact, social-economic impact
3. Relationship between 1. and 2.	Fair allocation of benefits	Allocation of benefits, distribution of benefits, sharing benefits
4. Institutional arrangements	Accountability	Control, responsibility, external actors
	Communication throughout the project	Meetings, consultation, communication skills
	Rule enforcement and appropriate rules-in-one	Bylaws, enforcement, rules, regulations
	Collaboration and participation in decision-making	Decision-making
5. External environment	Understanding of relevant state policies	Policies
	Monitoring and feedback	Monitoring, feedback, evaluating
	Changes in biodiversity	Deforestation/reforestation, litter, environmental management, human-wildlife conflicts, biodiversity loss
	Using project plans as working document	Project plan, CBET model, document, proposal
6. Support activities	Trainings	Training, workshop, coaching
	Funding	Funding, financing
	Autonomy	Management, board, committee, community involvement, community participation, ownership



### 3.3.2. CODING PROCESS

To analyze the CSFs in the case studies, a coding process has been used to score the case studies based on several codes and values in Microsoft Excel. This process contains a coding book as a starting point as described in the article by Baggio et al. (2016) and Cox et al. (2010). The underlying question regarding this codebook is if the case study addresses successful community-based ecotourism? Or not? Does it contain the CSFs? How important are these factors for the success of CBET? (Baggio et al., 2016).

This coding book contained a total of 19 variables which are the CSFs ordered into the six categories as explained in section 2.2. Each variable provided code as an outcome. The codes from the coding process defined by Cox et al. (2010) have been used as a basis. These codes were revised into the codes (1), (0), (-1), (X), and (Blank) used for scoring which is presented and explained in Table 5. Furthermore, each coded variable contains a value to indicate how much information was provided. There were three values used to indicate this: the value (+) when referred more than 6 times which means there is detailed information found, the value (+-) when referred between 2 – 5 times which means that there is little information found, and the value (-) when only referred once which means there is almost no information provided. Furthermore, during the coding process, the CBET definition been has analyzed based on the 7 different CBET criteria (see Table 1).

During the coding process, seven interpretative steps were used to search the CSFs in the case studies and to score these factors. Two extra steps were added to search for missing factors, possible interlinkages indicating configurations, and CBET definitions. These steps were followed by working with the program NVIVO and made the coding process replicable and reliable to analyze the variables. The steps are as follows:

- (1) Read the specific case study articles, i.e. textual database;
- (2) Orientate on the coding process including the possibility to switch between steps 3-4-5;
- (3) Start coding by labeling text fragments to the nodes i.e. the related CSFs;
- (4) Label new nodes if a new CSF is addressed in the case study to identify any missing factors in the theoretical framework;
- (5) Compare the nodes to search for the keywords which created eventually a trend of trade-offs used to code de variables more precise and in a transparent manner;
- (6) Note text fragments wherein a cluster of CSFs were described to identify possible interlinkages indicating configurations; and
- (7) End with selective coding to place the data in the related categories to eventually score the outcomes in Microsoft Excel.

Table 5. Overview of the used codes and their explanation.

<b>Variable</b>	<b>Code</b>	<b>Explanation</b>
19 CSFs	1	The case reported that the CSF exists with a positive effect on CBET.
	0	The case reported that the CSF does not exist with a negative effect on CBET.
	-1	The case reported that the CSF exists with a negative effect on CBET.
	X	The case reported conflicting evidence concerning the CSF if the text was ambiguous, conflicting, or unclear.
	Blank	The case reported no outcome which means that the CSF was not addressed.

### 3.4. DATA COLLECTION

Data is collected by using a triangulation of methods which increased the internal validity (Bryman, 2012). For this research, triangulation refers to “a process of cross-checking findings deriving from both quantitative and qualitative research” (Bryman, 2012, p. 392). The methods are described in the next sub-sections.

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#### 3.4.1. DESK RESEARCH

Desk research is used to search for existing case studies to gather facts and existing data to answer the RQ and the 2 – 6 sub-questions. In other words, no empirical data is gathered, but existing materials produced by others are used (Verschuren & Doorewaard, 2010). There are three characteristics involved: “(1) the use of existing material, in combination with reflection; (2) the absence of direct contact with the research object; (3) the material is used from a different perspective than at the time of its production” (Verschuren & Doorewaard, 2010, p. 194).

In this research, the use of existing materials consists of (peer-reviewed) articles, papers, and book chapters provided by scientists; and secondary data (e.g. survey and semi-structured interviews) compiled by the case study researchers. These materials are used within the case study meta-analysis. The absence of direct contact is related to the communities involved in CBET. This means that there is no data gathered during fieldwork. The material is used from a different perspective because it is used in a meta-analysis and a newly developed theoretical framework is applied to the case studies.

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#### 3.4.2. SURVEY

A survey is a quantitative data method and has been used to gain insights from (partly) successful CBET enterprises in practice (Verschuren & Doorewaard, 2010). The questions were related to the participants’ views on the importance of each CSF and statements concerning the CBET definition and the CSFs. These questions were applied to their specific enterprise and involved community by using a Likert scale (totally agree – totally disagree for the statements and very important – not at all important for the importance). These insights were suitable to validate the case study meta-analyses outcomes and is used as an extra check on relative importance.

The survey was made via Survey Monkey and the participants were invited via mail. In total, 12 participants filled in the survey. The survey results are held unanimous because it is not important to gather information on the specific case study but more to validate the importance of the factors.

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#### 3.4.3. SEMI-STRUCTURED INTERVIEWS

Semi-structured interviews are a qualitative data method and have been used to gain more in-depth/detailed information from the success of CBET enterprises in practice (Bryman, 2012). The survey questions were used as a guideline to identify the participant’s view on the importance of each CSF and to statements concerning the CBET definition and the CSFs. Like the survey, these insights were suitable to validate the case study meta-analyses outcomes and are used as an extra check on the relative importance.

The participants were interviewed via phone call and online via Zoom, or email when there were connection problems or language barriers. In total, there were six participants interviewed and include the case studies presented in Table 6. These cases represent different forms of case studies and different locations and therefore seen as representatives. They are held unanimous because the answers were only used for validation.

Table 6. Overview of representative case studies participated in an online interview (or via email).

<b>Case study</b>	<b>Form</b>	<b>Location</b>	<b>Data interview</b>
1. Tafi Atome Monkey Sanctuary (Referred to Tafi Atome)	Community-based ecotourism project	Ghana	July 10, 2020 (via telephone)
2. Jaringan Ekowisata Desa (Referred to JED)	Village ecotourism network	Bali	June 13, and July 20, 2020 (via Zoom and mail)
3. Toledo Ecotourism Association (Referred to TEA)	Community-based organization	Belize	July 2, 2020 (via mail)
4. WILDTRUST	Community-owned game reserve co-managed by WILDTRUST	South-Africa	June 17, 2020 (via Zoom and telephone)
5. Casa Matsigenka Jungle Lodge (Referred to Casa Matsiguenka)	Community-based ecotourism lodge	Peru	June 23, 2020 (via mail)
6. General information (Referred to as BELIZE)	General info about CBET in Belize	Belize	June 2, 2020 (via telephone)

### 3.5. ANALYSIS

#### 3.5.1. CASE STUDY META-ANALYSIS

The case study meta-analysis describes the quantitative generalizations as outcomes of the coding process and emphasized on the relative importance of the CSFs to summarize the key findings. The findings were summarized and compared by “conducting various analytical tests to show whether or not a particular variable affects the studies”. (Bryman, 2012, p. 713). In this case, a coding technique and statistical description technique were used in Microsoft Excel.

The relative importance of the CSFs was determined based on three different components. Component 1 represents an overview of how much each CSF was found to give the estimated importance. This is described as the frequency of the CSFs giving ‘relative weight’ to the importance. The second component influences the importance and is related to the different codes used during the coding process to illustrate the positive or negative effects of the CSFs. The third component influences the importance as well and is related to the different values. These values explain how much information was found about the CSFs. Component 2 and 3 are described as frequency per code and frequency per value and indicate the ‘direction’ of the relative importance, i.e. positively or negatively influencing. The CBET definition was as well analyzed during the case study meta-analysis based on the definition used within the range of this research resulting in outcomes suitable for substantiating the recommendations.

To set validated thresholds, a descriptive statistical tool has been used to identify the spreading of the data points. This has been done by calculating the frequency distribution displayed in Boxplots in Microsoft Excel. The range is then based according to the values of min, max, interquartile (Q1), interquartile (Q2) = median, interquartile Q3, mean, and Interquartile range (IQR). By using these values, the outliers were defined indicating that the particular factor scored remarkably high on the addressed outcomes because of extreme values at the end of the distribution (Bryman, 2012). The boxplots are presented in the result section showing these outliers. The used data values are shown in Appendix III. The thresholds are presented next. Note that these are presented in frequency (number of

case studies). The relative frequency (outcome in %) is calculated by dividing the threshold's numbers by the 50 (= number total case studies).

The estimated importance is measured based on the number of case studies found. The higher the number, the more important the factor may be seen. To indicate this importance, the following importance scale has been used:

Considered as important at a threshold of >35 case studies

Considered as moderately important at 17 – 35 case studies

Considered as not that important at a threshold of <17 case studies

The relative importance may be influenced by the outcomes of the codes which were identified by looking at the nuances presenting striking outcomes. Looking at these outcomes of the codes and values, they can positively influence the importance of the CSF: codes (1) and (0), and values (+) and (+-). Besides this, they can negatively influence the importance: code (-1) and value (-). Note that code (X) is excluded from the influence scale for identifying the influence since no clear information has been provided. However, this is presented as conflicting evidence. Code 0 is positively influencing because the lack of the CSF is resulting in a negative outcome on CBET which indicates that the existence of the CSF would be a positive outcome. The following thresholds were set to identify the striking outcomes.

For code (1)

Considered as positively influencing at a threshold of >22 case studies

Considered as moderately influencing at 8 – 22 case studies

Considered as not that much positively influencing at a threshold of <8 case studies

For code (0)

Considered as positively influencing at a threshold of >5 case studies

Considered as moderately influencing at 2 – 5 case studies

Considered as not that much positively influencing at a threshold of <2 case studies

For code (-1)

Considered as negatively influencing at a threshold of >3 case studies

Considered as moderately influencing at 1 – 3 case studies

Considered as not that much negatively influencing at a threshold of <1 case studies

For code (X)

Considered as conflicting at a threshold of >6 case studies

Considered as a bit conflicting at 1 – 6 case studies

Considered as not that much conflicting at a threshold of <1 case studies

The following percentages highlight the thresholds for the striking outcomes:

- Considered as a striking outcome at a threshold of > 44% for code 1
- Considered as a striking outcome at a threshold of > 10% for code 0
- Considered as a striking outcome at a threshold of > 6% for code -1
- Considered as a striking outcome at a threshold of > 12% for code X

The relative importance may be influenced as well by the outcomes of the values which were identified by how much a CSF is referred to in NVIVO when looking at all 50 case studies. For this, the following thresholds were set to identify striking outcomes:

For value (+)

- Considered as positively influencing at a threshold of >4 case studies
- Considered as moderately influencing at 1 – 4 case studies
- Considered as not that much positively influencing at a threshold of <1 case studies

For value (+-)

- Considered as positively influencing at a threshold of >16 case studies
- Considered as moderately influencing at 6 – 16 case studies
- Considered as not that much positively influencing at a threshold of <6 case studies

For value (-)

- Considered as negatively influencing at a threshold of >8 case studies
- Considered as negatively important at 4 – 8 case studies
- Considered as not that much negatively influencing at a threshold of <4 case studies

The following percentages highlight the thresholds for the striking outcomes:

- Considered as a striking outcome at a threshold of >8% for value +
- Considered as a striking outcome at a threshold of >32% for value +-
- Considered as a striking outcome at a threshold of >16% for value –

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### 3.5.2. IN-DEPTH ANALYSIS

The in-depth analysis continues on the results of the case study meta-analysis. In this analysis, the nuances are highlighted between the different categories, and the importance of the CSF is further discussed and validated by the responses obtained by the survey and semi-structured interviews. The relative importance was determined by the importance scale for component 1 which is based on the set thresholds (see the section above).

The influence scale of the codes and values continued from the set thresholds presented above and therefore these scales are not presented again as well. This scale can be interpreted as follows. If an outcome indicates positively influencing, then this is noted to strengthen the relative importance. If an outcome indicates negatively influencing, then this is noted as weaken the relative importance. Hereby means neutral that the relative importance is not strengthened or weakened and not that much means that there is little influence. The following percentages highlight the thresholds for the influence scale:

- >44% for code (1) = positively influencing = strengthen the relative importance
- >10% for code (0) = positively influencing = strengthen the relative importance
- >6% for code (-1) = negatively influencing = weaken the relative importance
- >8% for value (+) = positively influencing = strengthen the relative importance
- >32% for value (+-) = positively influencing = strengthen the relative importance
- >16% for value (-) = influencing negatively = weaken the relative importance

Lastly, the validity scale was used to identify the outcomes of the survey and interviews. These responses validated the relative importance of the CSFs. For the survey, the following scales were used to set the validation based on the Likert-scale (very important – not at all important). In this case, neutral means not validated, nor invalidated.

- >9 participants answered important + very important = validated
- 3 – 9 participants answered important + very important = neutral
- <3 participants answered important + very important = not validated

The validity scale for semi-structured interviews is as follows. In this case, neutral means not validated, nor invalidated as well.

- >3 participants mentioned the factor positively or as important = validated
- 1 – 3 participants mentioned the factor positively or as important = neutral
- <1 participant did not mentioned the factor positively or not at all = not validated

### 3.5.3. SYNTHESIS

The set of preconditions has been identified based on the outcomes from the case study meta-analysis, survey, and semi-structured interviews which are presented in the in-depth analysis in more detail. To identify the preconditions, the relative importance of the CSFs was determined and merged into a synthesis. This synthesis presents an overview of the estimated importance, the influence of the importance, and the validated outcomes concerning the importance of the CSFs.

To emerge the outcomes, the scales presented in Table 7 were used for filling in the synthesis Table. In this Table, the estimated importance is visualized by the symbols (+) for important, (+-) for moderately important, and (-) for not that important and validated by the (+) for validated, (+-) for remaining neutral (not validated, nor unvalidated) and (-) for not validated. To see if some factors were influenced, the synthesis Table is filled in with the following symbols: (+) indicates that the importance may be strengthened, (+-) indicates that the importance remained neutral (i.e. the estimated importance is not weakened or strengthened) and (-) indicates that the importance may be weakened (see Table 7). The total overview of relative importance (estimated + influence + validation) presents an indication of the preconditions for successful CBET.

Table 7. The importance, influence, and validity scales used for filling in the synthesis Table.

	<b>Component 1 (Frequency)</b>	<b>Component 2 (Codes)</b>	<b>Component 3 (Values)</b>	<b>Survey (Validity)</b>	<b>Interview (Validity)</b>
<b>Used scale</b>	Importance scale	Influence scale	Influence Scale	Validity Scale	Validity Scale
<b>Symbols</b>	(+/-/-)	(+/-/-)	(+/-/-)	(+/-/-)	(+/-/-)
<b>Explanation scale</b>	Important/ Moderately important/ Not that important	Strengthen/ Neutral/ Weaken	Strengthen/ Neutral/ Weaken	Validated/ Neutral/ Not validated	Validated/ Neutral/ Not validated

### 3.5.4. SET OF PRECONDITIONS

Eventually, the relative importance identified the set of preconditions. Because the relative importance is identified by both the ‘relative weight’ estimating the importance and the ‘direction’ influencing the importance, the order of the preconditions can be slightly different. Therefore, there ranking is based on three steps:

- (1) Rank the CSFs based on the estimated importance = list 1
- (2) Rank list 1 based on the validity (survey + interviews) = list 2
- (3) Rank list 2 based on the codes and values = list 3
- (4) List 3 represents the set of preconditions ranked by relative importance

## 4. RESULTS

The goal of this research was to create a set of preconditions for the success of CBET initiatives. This was done by applying the theoretical framework derived from the literature review on the case study-meta analysis. From this, several results were obtained and are presented in this section. These results address different insights concerning the relative importance and the effects of the CSFs, the different categories, and the definition of CBET.

To establish the final set of preconditions, two analyses have been conducted: a case study meta-analysis describing the outcomes of the coding process and determining the estimated importance (described in section 4.1.) and an in-depth analysis validating the outcomes of the case study meta-analysis per category, and determining the influence on the importance (described in section 4.2.). Eventually, a synthesis has evolved from these two analyses to determine the relative importance and provide the set of preconditions for the success of CBET (see section 4.3.).

### 4.1. CASE STUDY META-ANALYSIS

The case study meta-analysis emphasizes the relative importance of the CSFs, which is the main focus of this research. The relative importance of the CSFs was determined based on three different components. Per component, different thresholds were defined based on the distribution of the data to indicate the ‘relative weight’ of the CSFs (see section 4.1.1.). The first component represents an overview of how much each CSF was found to give the estimated importance (see section 4.1.2.). The second component influences the importance and is related to the different codes used during the coding process to illustrate the positive or negative effects of the CSFs. The outcomes of these codes are presented in section 4.1.3. The third component influences the importance as well and is related to the different values. These values explain how much information was found about the CSFs (see section 4.1.4.). From the case study meta-analysis were as well some additional findings found concerning several missing factors and possible interlinkages indicating configurations (see section 4.1.5). The CBET definition was as well analyzed during the case study meta-analysis and these results are presented in section 4.1.6.

During the case study meta-analysis, special attention was put to the generalized outcomes and that standardization was not possible. Therefore it is important to keep in mind that the presented results are pseudo precision. However, this precision is validated by the boundaries used for this research and is reliable due to the transparency and replicability of the coding process.

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#### 4.1.1. DISTRIBUTION PER COMPONENT

The defined thresholds were suitable for creating the scales with which the most important/interesting results and outliers were determined. More importantly, by using these thresholds, relative importance could be determined. Each component contains different randomized data and therefore a boxplot was suitable for looking at the frequency distribution to determine these thresholds. This is done by dividing the data into four parts of 25% (see method section 3.5.1.). The boxplots are visualized in Figure 5 to Figure 7. As shown, the boxplots recognized as well three outliers, one at code (-1) and two at value (+). The factors that are representing these outliers are described in the next sub-sections.



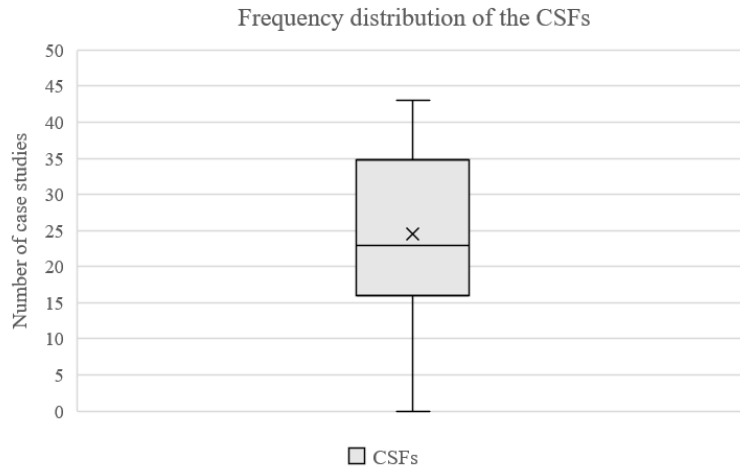


Figure 5. Boxplot component 1 - Frequency distribution of the CSFs. No outliers were found.

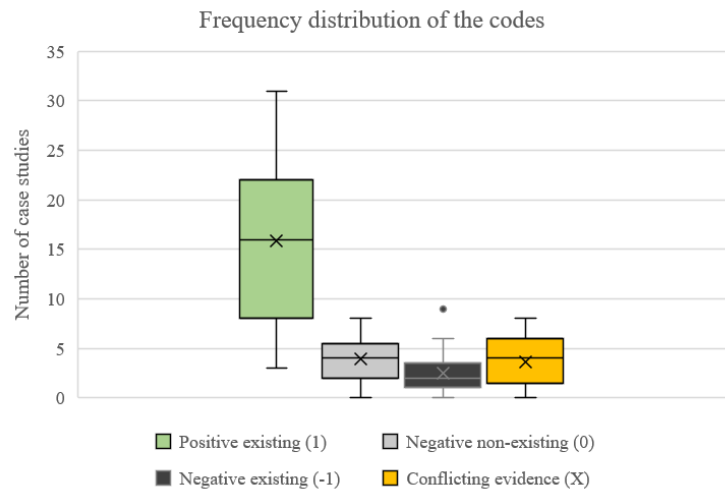


Figure 6. Boxplot component 2- Frequency distribution of the codes. The black dot indicates an outlier.

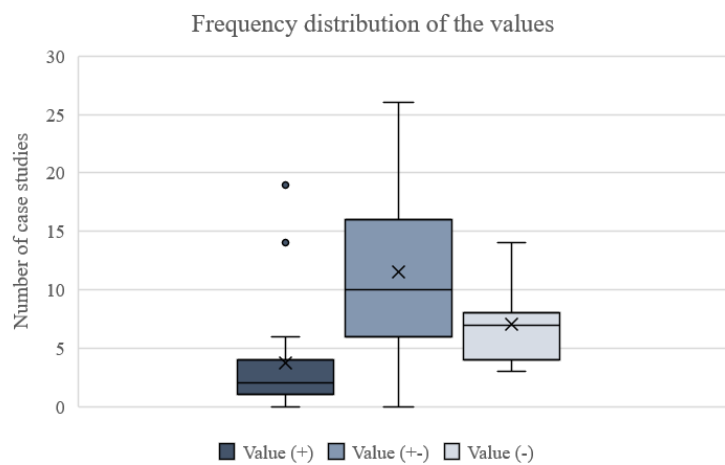


Figure 7. Boxplot component 3 - Frequency distribution of the values. The black dots indicate two outliers.

#### 4.1.2. OVERVIEW OF THE FREQUENCY

How often the CSFs were found in the case studies (i.e. frequency) after finishing the coding process is visualized in Figure 8. The number given on top of each bar represents the number of case studies in which the specific factor was found. This number gives an estimation of the importance of each CSF. The higher the number, the more important the factor may be. Therefore, the bars in Figure 8 are arranged to ascend, which highlights the most important factors on the right and represents a range of possible factors that may play a role in the success of CBET. Furthermore, the Figure is displayed in different colors, one for each category, to represent how the different categories are divided.

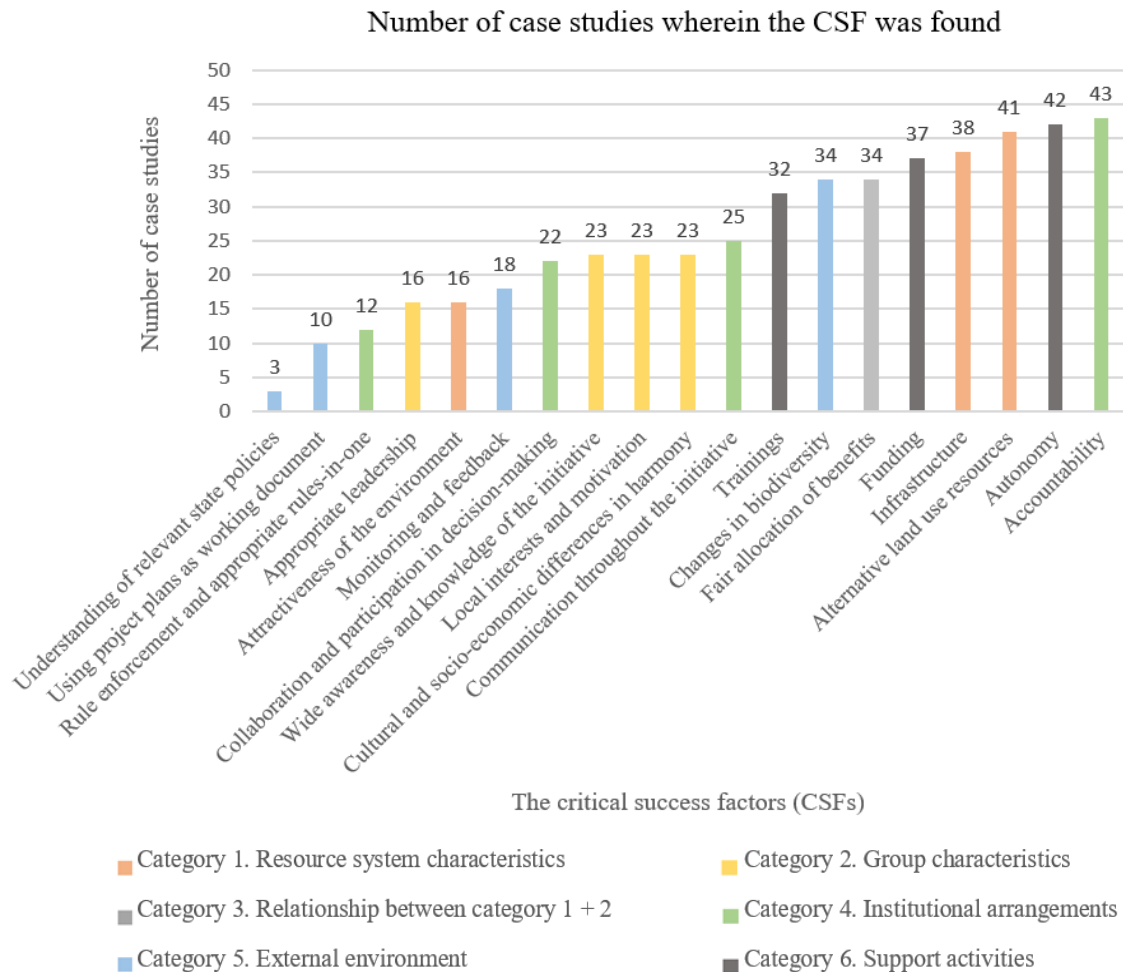


Figure 8. Overview of frequency – Total number of case studies wherein a CSF was found. The six colors represent the six categories.

According to the estimated importance of the factors, five CSFs were found with a number above the threshold (>35 case studies) and are therefore considered as important for the success of CBET initiatives, namely *funding*, *infrastructure*, *alternative land use resources*, *autonomy*, and *accountability*. When looking at the threshold <17 five factors may be seen as not that important for CBET initiatives: *understanding of relevant state policies*, *using project plans as working document*, *rule enforcement and appropriate rules-in-one*, *appropriate leadership*, and *attractiveness of the environment*. The other nine factors with a number between 17-35 can be considered as moderately

important. These are *monitoring and feedback, collaboration and participation in decision-making, wide awareness and knowledge of the initiative, local interests and motivation, cultural and socio-economic differences in harmony, communication throughout the initiative, trainings, changes in biodiversity, and fair allocation of benefits.*

When looking at the estimated importance per category, Figure 8 shows that category 6 – Support activities – scored higher on the importance scale (>35 case studies) with two of the three factors as important and one as moderately important with 32 case studies. Category 2 – Group characteristics – scored lower on the importance scale with three of the four factors seen as moderately important (between 17 and 35 case studies) and one factor as not that important (<17 case studies). This is as well applicable to category 5 – External environment – because this category contains two moderately important factors (24 and 18 case studies), and two factors that are not that important (3 and 10 case studies). Category 1 – Resource system characteristics – scored a bit divided on the importance scale with two of the three factors as important with 38 and 41 case studies but contains one factor as not that important with a score of 16 case studies. Category 4 – institutional arrangements – scored more divided because it contains one important factor (i.e. *accountability*) and contains two moderately important factors with 22 and 25 case studies and one factor not that important with 12 case studies. Category 3 – Relationship between category 1 + 2 – scored only moderately important however this category contains only one factor and therefore a division of factors is not possible.

Overall, three out of six categories contain several important factors (>35 case studies). Especially category 1 and 6 contain two factors above this threshold. Category 2 contains no factors that may be seen as important, but three out of four factors may be seen as moderately important. Category 5 contains two out of four factors as not that important. Furthermore, Category 4 is most divided when looking at the importance scale.

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#### 4.1.3. OVERVIEW OF THE CODES

The results from the coding process show that the relative importance is influenced by different code outcomes. The total number of case studies wherein a CSF was found has been split into four outcomes: the factor is seen as positive because of the existence of the factor, the factor is seen as negative because of the lack of the factor, the factor is seen as negative because of the existence of the factor and there is no outcome defined due to conflicting evidence. The CSFs outcomes were coded to indicate how often these outcomes were found. The overview of the number of case studies wherein the CSF was found per code looking at the 50 case studies (i.e. frequency per code) is shown in Figure 9.

Looking at this Figure, almost all factors scored highest on code (1) which means that the factors provide a positive outcome on CBET. Especially the factors *accountability, autonomy, alternative land use resources, infrastructure, and funding* scored above 22 case studies wherein the CFS exist with a positive effect. Notable, the factor *cultural and socio-economic differences in harmony* is the only factor with an equal number of case studies for the outcomes with code (1), (0), and (-1) and has a large amount of conflicting evidence compared to the other three codes. This result is as well visible when looking at Table 8 (relative frequency per code) where the results are presented in percentage to compare the CSFs outcomes by looking at the striking outcomes (see highlighted percentages in the Table) based on the influence scale.

According to this Table, almost all factors scored highest on code (1) (positive existing) indicating that almost all factors have a positive effect on CBET. There are a few percentages marked in green to highlight the highest percentages. *Infrastructure, alternative land use resources,*

*accountability*, *funding*, and *autonomy* all have a percentage above 44%. Besides, there are five factors worth mentioning that have the highest percentage of code (0) (non-existing negative) in contrary to the other factors. These are *infrastructure*, *cultural and socio-economic differences in harmony*, *fair allocation of benefits*, *accountability*, and *funding* which all scored above 10%.

However, there are as well some striking outcomes found indicating that some CSFs may influence CBET negatively and are therefore marked in red (see Table 8). When looking at the factors that are existing with negative effects (code (-1)), *autonomy* scored highest with 18% at a scale of >6% and is considered as an outlier, followed by *alternative land use resources*, and *cultural and socio-economic differences in harmony* both with 12% and *accountability* and *appropriate leadership* with 8%. The only factor that is noteworthy dealing with conflicting evidence when looking at the threshold of >12% is *changes in biodiversity*.

Looking at the different categories presented in Table 8, it is notable that two out of three factors in category 6 – Support activities – have a high percentage of code (1) (existing positive) but on the opposite one of these factors, namely *autonomy*, has a high percentage of code (-1) (existing negative). This applies as well to category 1 – Resource system characteristics – wherein the factor *alternative land use resources* has both a striking outcome on code (1) and (-1). Category 4 – Institutional arrangements – contains only one factor with striking outcomes, namely *accountability* scoring high on code (1), (0), and (-1). These three factors are therefore showing inconsistency. Furthermore, five out of six categories contain one or more factors that are marked in red (existing negative). Category 5 – External environment – contains no striking positive outcomes and is the only category with a high score on conflicting evidence. These results indicate that extra attention needs to be put on the differences within the categories, which can be found in section 4.2.1. whereas well attention is set on how much the code outcomes influence the importance.

### Overview of the CSFs per code

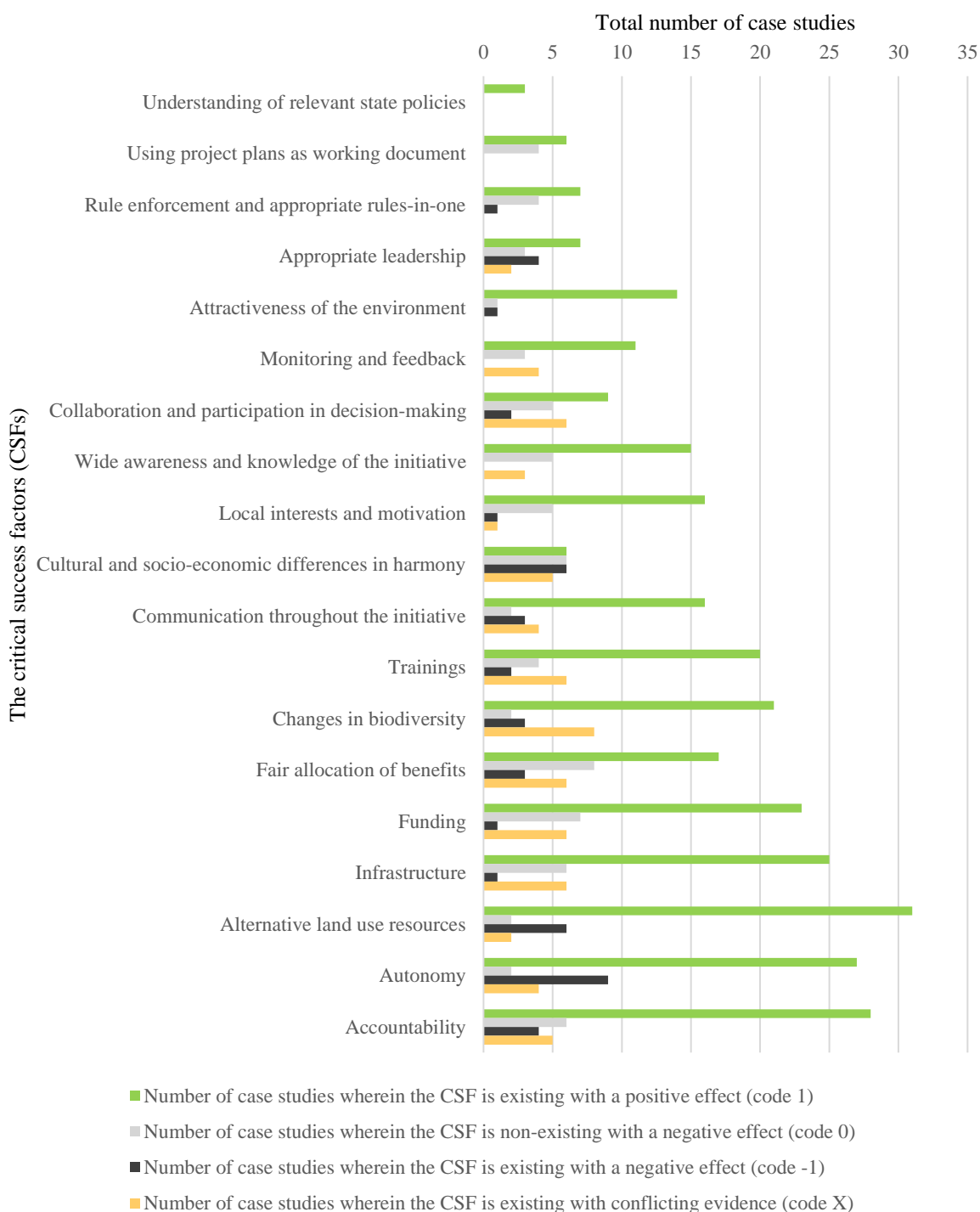


Figure 9. Overview of frequency per code – How often the CSFs were found per code (1, 0, -1, X).

Table 8. Overview of the relative frequency (%) per code. The percentages representing striking outcomes are highlighted in bold underlined and color. The box represents the outlier.

Category	Critical Success Factor	Codes (%)			
		Positive existing (1)	Negative non-existing (0)	Negative existing (-1)	Conflicting evidence (X)
(1) Resource system characteristics	Infrastructure	<b><u>50%</u></b>	<b><u>12%</u></b>	2%	12%
	Attractiveness of the environment	28%	2%	2%	0%
	Alternative land use resources	<b><u>62%</u></b>	4%	<b><u>12%</u></b>	4%
(2) Group characteristics	Appropriate leadership	14%	6%	<b><u>8%</u></b>	4%
	Wide awareness and knowledge of the initiative	30%	10%	0%	6%
	Local interests and motivation	32%	10%	2%	2%
	Cultural and socio-economic differences in harmony	12%	<b><u>12%</u></b>	<b><u>12%</u></b>	10%
(3) Relationship between category 1 + 2	Fair allocation of benefits	34%	<b><u>16%</u></b>	6%	12%
(4) Institutional arrangements	Accountability	<b><u>56%</u></b>	<b><u>12%</u></b>	<b><u>8%</u></b>	10%
	Communication throughout the initiative	32%	4%	6%	8%
	Rule enforcement and appropriate rules-in-one	14%	8%	2%	0%
	Collaboration and participation in decision-making	18%	10%	4%	12%
(5) External environment	Understanding of relevant state policies	6%	0%	0%	0%
	Monitoring and feedback	22%	6%	0%	8%
	Changes in biodiversity	42%	4%	6%	<b><u>16%</u></b>
	Using project plans as working document	12%	8%	0%	0%
(6) Support activities	Trainings	40%	8%	4%	12%
	Funding	<b><u>46%</u></b>	<b><u>14%</u></b>	2%	12%
	Autonomy	<b><u>54%</u></b>	4%	<b><u>18%</u></b>	8%

#### 4.1.4. OVERVIEW OF THE VALUES

The last component of the relative importance is related to the values that illustrate how much a CSF is referred to in NVIVO when looking at all 50 case studies (see Table 9). During the coding process were three values used: the value (+) when referred more than 6 times which means there is detailed information found, the value (+-) when referred between 2 – 5 times which means that there is little

information found, and the value (-) when only referred once which means there is almost no information provided. This indicates how much information is described in each factor. To link these values to the relative importance, it is assumed that the more information has been found, the more important the factor may be seen.

Table 9 shows the relative frequency (%) per value for the CSFs. The striking factors that are referred to more than six times indicate that the CSFs may positively influence the importance based on the threshold of >8%. These factors are *infrastructure*, *alternative land use resources*, *accountability*, and *autonomy*, whereby accountability and autonomy are considered to be outliers. The factors that can be seen as moderately influencing (>32%) are *infrastructure*, *alternative land use resources*, *fair allocation of benefits*, *accountability*, *changes in biodiversity*, *trainings*, *funding*, and *autonomy*. These three CSFs are referred to between 2 – 5 times. *Local interests and motivation*, *fair allocation of benefits*, *communication throughout the initiative*, and *funding* are negatively influencing the importance (>16%) since these have the highest percentage of ‘referred ones’.

Table 9. Overview of the relative frequency (%) per value. The bold underlined percentages represent the striking outcomes. The two boxes represent the outliers.

Category	Critical Success Factor	Values (%)		
		Referred >6 times (+)	Referred 2-5 times (+-)	Referred once (-)
(1) Resource system characteristics	Infrastructure	<b><u>12%</u></b>	<b><u>42%</u></b>	10%
	Attractiveness of the environment	2%	20%	10%
	Alternative land use resources	<b><u>10%</u></b>	<b><u>52%</u></b>	16%
(2) Group characteristics	Appropriate leadership	2%	20%	6%
	Wide awareness and knowledge of the initiative	8%	18%	14%
	Local interests and motivation	4%	12%	<b><u>28%</u></b>
	Cultural and socio-economic differences in harmony	8%	18%	10%
(3) Relationship between category 1 + 2	Fair allocation of benefits	2%	32%	<b><u>22%</u></b>
(4) Institutional arrangements	Accountability	<b><u>28%</u></b>	<b><u>34%</u></b>	14%
	Communication throughout the initiative	2%	16%	<b><u>24%</u></b>
	Rule enforcement and appropriate rules-in-one	4%	12%	8%
	Collaboration and participation in decision-making	4%	12%	16%
(5) External environment	Understanding of relevant state policies	0%	0%	6%
	Monitoring and feedback	0%	14%	14%
	Changes in biodiversity	6%	32%	14%
	Using project plans as working document	0%	8%	12%
(6) Support activities	Trainings	8%	<b><u>36%</u></b>	8%
	Funding	4%	30%	<b><u>28%</u></b>
	Autonomy	<b><u>38%</u></b>	30%	8%

Looking at the different categories in Table 9, notable is that category 1 – Resource system characteristics – contains two out of three CSFs with a positive influence (i.e. *infrastructure* and *alternative land use resources*). The categories 4 – Institutional arrangements – and 6 – Support activities – contain only one striking factor that is positively influencing the importance. These two factors, *accountability*, and *autonomy* are considered as outliers as well. These two categories have as well one factor with ‘referred once’ as a striking outcome, namely *communication throughout the initiative* and *funding*. Besides this, category 2 contains no striking factors that are referring more than 6 times but only one factor scoring highest on value (-), namely *local interests and motivation*. This applies as well to category 3 – Relationship between 1 + 2 – which has only one factor with ‘referred once’ as a striking outcome (i.e. *fair allocation of benefits*). Category 5 – External environment – has no striking outcomes at all when looking at these four factors.

These results indicate as well that there are differences between the factors and within the categories. More in-depth information concerning the categories can be found in section 4.2.1. where attention is set on how much the value outcomes influence the importance as well.

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#### 4.1.5. ADDITIONAL FINDINGS

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##### 4.1.5.1. MISSING FACTORS

The case study meta-analysis focused on the 19 CSFs separately. However, there were other factors noticed in the 50 case studies that may contribute to the success of CBET. These other factors are therefore described as missing factors for this research, indicating that the theoretical framework is missing CSFs. Further research is needed to investigate this. The factors that were found above the threshold of 17 case studies were considered as important or moderately important. Table 10 summarizes the missing factors, indicating that these are all moderately important (between the threshold of 17 – 35 case studies). However, governmental support is indirectly related to *funding* and is therefore not completely missed as a factor.

Table 10. Overview of missing factors, including their description and how often they were found in the case studies (frequency = number of case studies).

<b>Missing factor</b>	<b>Description</b>	<b>Frequency</b>
Marketing and promotion	<i>Marketing and promotion</i> is referred to as the marketing strategy, skills, and support, and promoting efforts for the CBET industry.	31
Governmental support	<i>Governmental support</i> is referred to as the support specifically provided by governmental authorities and their involvement in CBET by e.g. funding, enforcement, rules and regulations, and implementation of CBET.	25
Gender (in)equality	<i>Gender (in)equality</i> is referred to as the inclusion and exclusion of women in the management, decision-making, activities, jobs, or other aspects related to CBET.	20
Market structure	<i>Market structure</i> is referred to as no competition between enterprises and communities, entrepreneurship, and economic elements such as inflation, economic leakages, costs and benefits, market opportunities, dictated prices, and new forms of market-based livelihoods.	18



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#### 4.1.5.2. INTERLINKAGES BETWEEN THE FACTORS

During the coding process, several interlinkages were recognized between the CSFs and are summarized in Table 11 looking at the different case studies. These indicate that it is possible to identify configurations between the factors. Note that this list is not complete and no actual configurations were identified that may lead to successful CBET. However, by presenting these interlinkages as additional findings, it highlights the importance of identifying configuration to cluster the CSFs and see how the CSFs are arranged and work together. This will give a more detailed exploration of the importance of the factors for the success of CBET. Therefore, further research is needed to elaborate on this list and to identify the configurations.

Table 11. Noticed interlinkages between the CSFs useful for identifying configurations.

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<b>Interlinkages between CSFs</b>
<ul style="list-style-type: none"><li>• Autonomy and accountability</li><li>• Autonomy, accountability, collaboration and participation in decision-making, and wide awareness and knowledge of the initiative</li><li>• Accountability, trainings, and funding</li><li>• Collaboration and participation in decision-making, communication throughout the initiative, and accountability</li><li>• Accountability and funding</li><li>• Changes in biodiversity, infrastructure, and alternative land use resources</li><li>• Alternative land use resources, infrastructure, and changes in biodiversity</li><li>• Collaboration and participation in decision-making and autonomy</li><li>• Gender inequality (i.e. missing factor), collaboration and participation in decision-making, and communication throughout the initiative</li><li>• Autonomy and leadership</li><li>• Accountability, funding, training, and marketing (i.e. missing factor)</li><li>• Funding, accountability, and changes in biodiversity</li><li>• Autonomy, local interests and motivation</li><li>• Autonomy, funding, governmental support and promotion</li></ul>

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#### 4.1.5.3. OVERVIEW OF CBET DEFINITION

The CSFs contribute to the success of initiatives such as CBET. To understand the concept of CBET more, this research analyzed the CBET definition as well. The reasoning for this is because the definition of community-based ecotourism is defined differently in the case studies. After all, each author used their perspective and definition of CBET in their research. This makes it complex to standardize the definition. However, to give a direction towards a more summarized and comprehensive definition, the seven criteria to recognize CBET were analyzed during the case study meta-analysis. This provided the following insights to understand the suitability of these criteria which is useful to make further recommendations to attempt standardizing the conceptualization of CBET.

Table 12 shows that only three criteria were found in all 50 case studies, namely (1) *involves travel to natural destinations*, (4) *provides benefits for conservation*, and (5) *provides benefits (and empowerment) for the local people*. This emphasizes that these criteria are involved in all the definitions addressed in the case studies and therefore suitable elements for recognizing CBET. The criteria (2) *minimizes impacts*, (3) *builds environmental awareness*, and (6) *involves the local culture* are often

found – between 32 and 40 times – and therefore also seen as well suited elements. The last criteria, (7) *support human rights and land rights*, is only found eight times in all the case studies which may indicate that this element for recognizing CBET is not that suitable.

Table 12. Overview of the number of case studies wherein the CBET criteria were found.

<b>Criteria</b>	<b>Frequency</b>
(1) Involves travel to natural destinations	50
(2) Minimizes impacts	38
(3) Builds environmental awareness	32
(4) Provides benefits for conservation	50
(5) Provides benefits (and empowerment) for the local people	50
(6) Involves the local culture	40
(7) Supports human rights and land rights	8

## 4.2. IN-DEPTH ANALYSIS

The results described in this section follow from the outcomes of the case study meta-analysis described above in section 4.1. The in-depth analysis zooms in on the six different categories used within the theoretical framework by looking at the case study meta-analysis and the responses obtained from the survey and interviews. Therefore, this analysis is structured by the different categories to emphasize the nuances (see section 4.2.1.). This section presents the most valuable insights concerning the relative importance gained for this research by looking at the three components. Furthermore, insights concerning the CBET definition were obtained from the interviews and survey responses as well, which are presented in sections 4.2.2.

### 4.2.1. THE OUTCOMES PER CATEGORY

The following sub-sections describe the outcomes of the case study-meta analysis per category and zoom in on relative importance. These outcomes of the frequency and codes are visualized in Figure 10 to Figure 15. The outcomes of the values are visible in the overview Table 9 and are here described per category. The Figures show for each category the total number of case studies wherein the CSF was found (i.e. frequency) and how often they were found per code (i.e. frequency per code).

The relative importance of CSFs is influenced by different codes. This can be positively influenced (code (1) and (0)), negatively influenced (code (-1)) or no influence defined (code X) which indicates the effect of the factor (i.e. the factor is positively (code (1) and (0)) or negatively (code -1) affecting CBET). The relative importance is influenced by the different values as well. This can be positively influenced (value (+) and (+-)) and negatively influenced (value (-)). Furthermore, the interview and survey responses provide additional information concerning the CSFs to check the outcomes on validity. Some differences in responses were recognized and are described per category.

#### 4.2.1.1. CATEGORY 1: RESOURCE SYSTEM CHARACTERISTICS

This category contains three CSFs: *infrastructure*, *attractiveness of the environment*, and *alternative land use resources*. Looking at the estimated importance, two of these, *infrastructure* and *alternative*

*land use resources* scored high (> 35 case studies) on the total number of the case studies the CSF was found in and are therefore considered as an important factor (see Figure 10).

Looking at the codes (see Figure 10), only *infrastructure* and *alternative land use resources* scored above the threshold of 22 case studies on code (1). Next to this, *infrastructure* scored as well above the threshold of code (0) (>5 case studies). This indicates that these two factors influence positively the importance. However, *alternative land use resources* scored as well above the threshold on code (-1) (>3 case studies), indicating that this factor may as well negatively influences the importance. The factor *attractiveness of the environment* scored moderately influencing with 14 case studies on code (1).

Looking at the values, the factors *infrastructure* and *alternative land use resources* scored both >8% for the value (+) and above 32% for the value (+-) and are therefore positively influencing the importance. The factor *attractiveness of the environment* scored moderately on all three values.

### Box 1. Conclusion Case Study Meta-analysis – Category 1.

To conclude, two CSFs are estimated as important: *infrastructure* and *alternative land use resources*. Only the importance of *infrastructure* can be strengthened based on the codes and values. The importance of *attractiveness of the environment* and *alternative land use resources* have remained neutral (i.e. the importance is not strengthened or weakened) because of inconsistency or moderately scores.

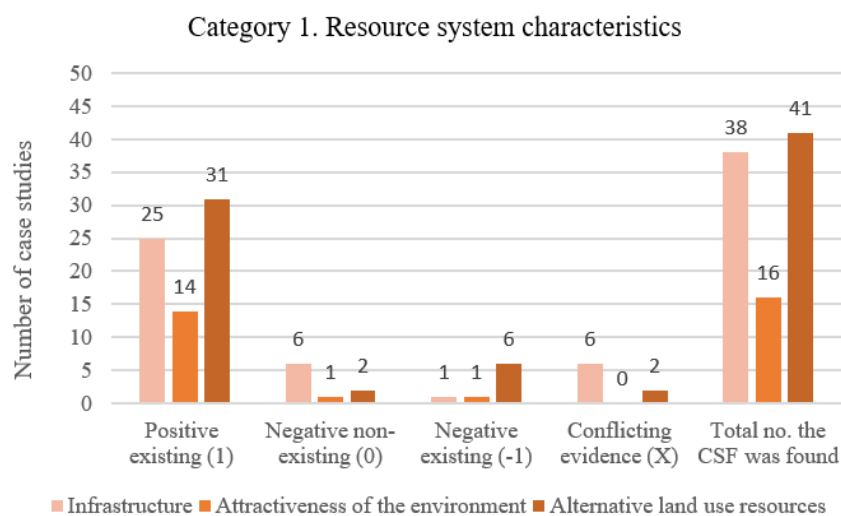


Figure 10. Outcomes of case study meta-analysis – Frequency and frequency per code – Category 1.

Regarding the survey, two scored the factor *infrastructure* as neutral, six scored the factor as important, and four as very important. *Attractiveness of the environment* scored eight times as very important and four times as important. This in contradiction to the estimated importance defined in the case study-meta-analysis. Therefore, the relative importance of these two factors is validated. *Alternative land use resources* scored inconsistently because two scored the factor as very important, six as important, two as neutral and two as not that important. Therefore, the relative importance of this factor remained neutral (i.e. not validated, nor invalidated).

Regarding the interviews, all three factors were mentioned in the interviews. However, the factor *infrastructure* was mentioned with contradicting information. According to JED, creating awareness is more important than infrastructure to work as a collective action together. Then existing infrastructure can be used, such as empty spaces for homestays, instead of building new accommodations (personal communication, June 13, 2020). According to WILDTRUST, a good infrastructure is very important to ensure access and good roads for tourists (personal communication, June 17, 2020). The factor *attractiveness of the environment* was only mentioned in one interview as a positive aspect. Therefore, the relative importance of these two factors remained neutral (i.e. not validated, nor invalidated). The factor *alternative land use resources* is mentioned positively in four of the six interviews and therefore validated as relative importance for the success of CBET. Farming and hunting were often found in the case studies. This is confirmed by JED indicating that the rice fields are a part of their culture and income (personal communication, June 13, 2020) and by WILDTRUST highlighting that hunting is important to supply meat to the community in terms of hunger and poverty (personal communication, June 17, 2020).

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#### 4.2.1.2. CATEGORY 2: GROUP CHARACTERISTICS

This category – Group characteristics – contains four CSFs: *appropriate leadership*, *wide awareness and knowledge of the initiative*, *local interests and motivation*, and *cultural and socio-economic differences in harmony*. Looking at the estimated importance, none of these factors can be considered as important since they all scored <35 case studies. However, only *appropriate leadership* scored <17 and is therefore considered as not that important. The other 3 factors scored between 17 – 35 case studies and are therefore considered as moderately important (see Figure 11).

Regarding the codes, *wide awareness and knowledge of the initiative* and *local interests and motivation* scored between the threshold 8 – 22 case studies for code (1) indicating they are moderately influencing the importance and the other two factors have not that much influence. The factor *cultural and socio-economic differences* scored high on code (0) with a score of 6 (>5 for influencing the importance). However, this factor scored as well high with a score of 6 on code -1, which is above the threshold of 3 for code (-1), indicating that this factor may influences the importance negatively and therefore shows inconsistency. The factor *appropriate leadership* scored as well above this threshold for code (-1) and is therefore considered as negatively influencing the importance (see Figure 11).

Regarding the values, all factors scored moderately on the influence scale for value (+) and value (+-). Only the factor *local interests and motivation* scored above the threshold of 8 (16%) for the value (-) considering this factor as negatively influencing the importance.

#### **Box 2. Conclusion Case Study Meta-analysis – Category 2.**

To conclude, none of these CSF are estimated as important and only *appropriate leadership* is estimated as not that important. None of these factors are strengthen the importance based on the codes and values. Only the importance of *appropriate leadership* can be weakened based on the codes and the importance of *local interests and motivation* can be weakened based on the values. All the other factors have remained neutral and therefore their importance is not strengthened or weakened because of inconsistency or moderately scores.

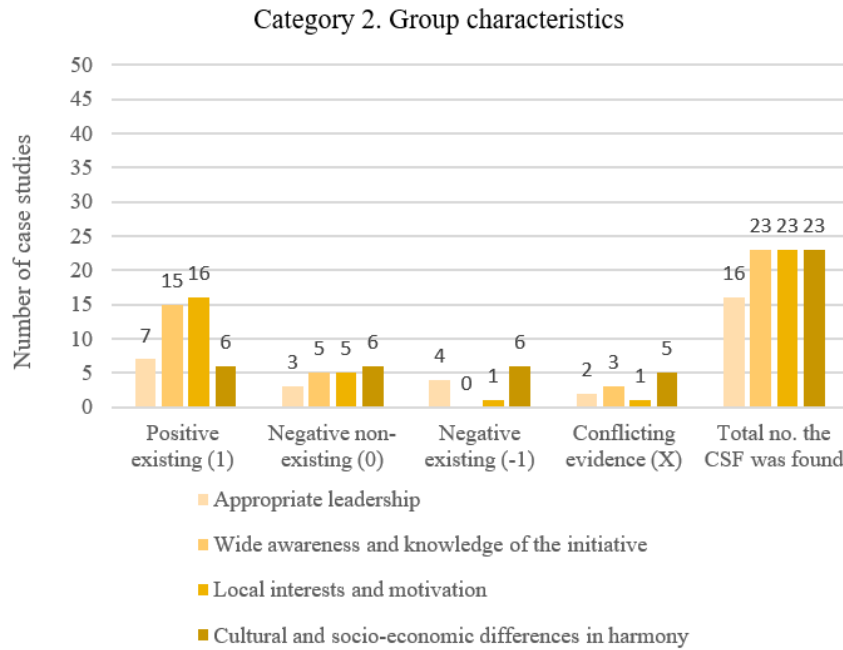


Figure 11. Outcomes of case study meta-analysis – Frequency and codes – Category 2.

Regarding the survey, all factors scored high on the validity scale. *Appropriate leadership* scored 9x on very important and 3x on important. This is in contradiction to the estimated importance defined in the case study meta-analysis. The factor *wide awareness and knowledge of the initiative* scored 10x very important and 2x important, the factor *local interests and motivation* scored 11x very important and 1x important, and the factor *cultural and socio-economic differences in harmony* scored 7x very important 4x important and 1x neutral. Therefore, the relative importance of these four factors is validated.

Regarding the interviews, all four factors were mentioned in the interviews. However, the factor *appropriate leadership* was mentioned with contradicting information. For example, at the association TEA, the leaders are trained and educated to “adhere to the policies, rules, and regulations of the Association” (personal communication, July 2, 2020). This is in contrast with leaders that are mistrusted and seen as a problem (Tafi Atome, personal communication, July 10, 2020). The factors *local interests and motivation* and *cultural and socio-economic differences in harmony* are only mentioned positively in one interview. Therefore, the relative importance of these factors remained neutral. The relative importance of *awareness and knowledge of the initiative* is validated because it is mentioned in four of the six interviews as a positive aspect. To highlight, this factor is part of the mission of JED “which is to build awareness, confidence, and pride of local communities of their own culture” (personal communication, June 13, 2020).

#### 4.2.1.3. CATEGORY 3: RELATIONSHIP BETWEEN CATEGORY 1 + 2

This category only contains one CSF which is *fair allocation of benefits* and is estimated as moderately important since this factor scored 34 case studies, which is between the threshold 17 – 35 case studies (see Figure 12). Regarding the codes, this factor scored only above the threshold of 6 on code (0) indicating that this factor is positively influencing the importance. The CSF is moderately influencing the importance when looking at the other codes (see Figure 12). Regarding the values, this factor scored

above the threshold of 8 for the value (-) indicating that this factor is negatively influencing the importance.

**Box 3. Conclusion Case Study Meta-analysis – Category 3.**

To conclude, the CSF *fair allocation of benefit* is estimated as moderately important. The importance of this factor can be strengthened based on the codes and can be weakened based on values.

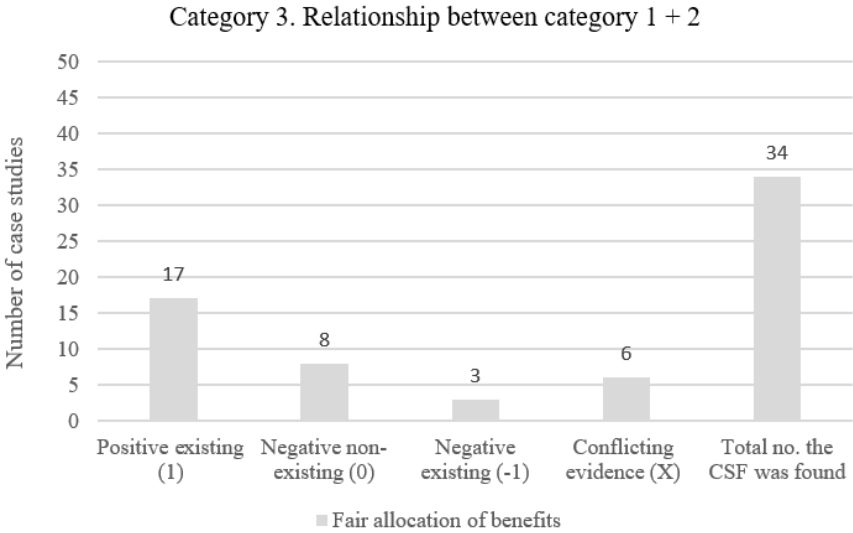


Figure 12. Outcomes of case study meta-analysis – Frequency and frequency per code – Category 3.

Regarding the survey, the factor *fair allocation of benefits* scored 1x neutral, 4x important, and 7x very important. Therefore, the relative importance of this factor is validated.

Regarding the interviews, *fair allocation of benefits* is mentioned positively in five out of six interviews and therefore validated as an important factor. According to Casa Matsiguenka, a rotating system is existing to create employment among members. This provides income to share with their own families, however, this is still challenging since the collective benefits are insufficient (personal communication, June 23, 2020). In the conversation with JED is said that the revenues are for the communities. Specifically, 85% of the income goes to the village and 15% of the income goes to JED itself for promoting and marketing and providing activities and trainings in cooperation with Wisnu Foundation (personal communication, June 13, 2020).

4.2.1.4. CATEGORY 4: INSTITUTIONAL ARRANGEMENTS

The category – Institutional arrangements – contains the CSFs *accountability, communication throughout the initiative, rule enforcement and appropriate rules-in-one, and collaboration and participation in decision-making* (see Figure 13). When looking at the importance scale, the factor *accountability* scored above the threshold of 35 case studies and is therefore considered as important. The factor *rule enforcement and rules-in-one* scored <17 case studies and is therefore considered as not that important. The other two factors are considered as moderately important.

Looking at the codes, the factor *accountability* scored with 28 case studies above the threshold of 22 case studies for code (1) and with 6 case studies above the threshold of 5 case studies for code (0)

indicating that the importance is influenced positively. However, this factor scored as well with 4 case studies above the threshold of 3 case studies for code (-1) indicating that the importance is influenced negatively. Therefore, this factor shows inconsistency. The other three factors scored moderately influencing the importance and not that much influencing the importance based on the codes.

Looking at the values, the factor *accountability* scored with 28% high above the threshold of 8% for value (+) indicating that this outcome is an outlier and therefore extremely noteworthy. The factors scored as well above the threshold of 32% for value (+-). Therefore, the importance of this factor is positively influenced based on these values. The factor *communication throughout the initiative* scored with 24% above the threshold of 16% for value (-) indicating that the importance of this factor is influenced negatively based on this value. The other two factors scored neutral indicating that the importance is moderately influenced.

**Box 4. Conclusion Case Study Meta-analysis – Category 4.**

To conclude, the CSF *accountability* is estimated as important, the CSFs *rule enforcement and appropriate rules-in-one* as not that important and the other two CSFs as moderately important. Based on the codes, the importance of *accountability* remained neutral due to inconsistency. The importance of the other three factors remained neutral due to moderately outcomes. The factors are therefore not strengthening or weakening the importance. Based on the values, the importance of *accountability* can be strengthened especially since this is a positive outlier. The importance of *communication throughout the initiative* can be weakened because this factor is often only referred once.

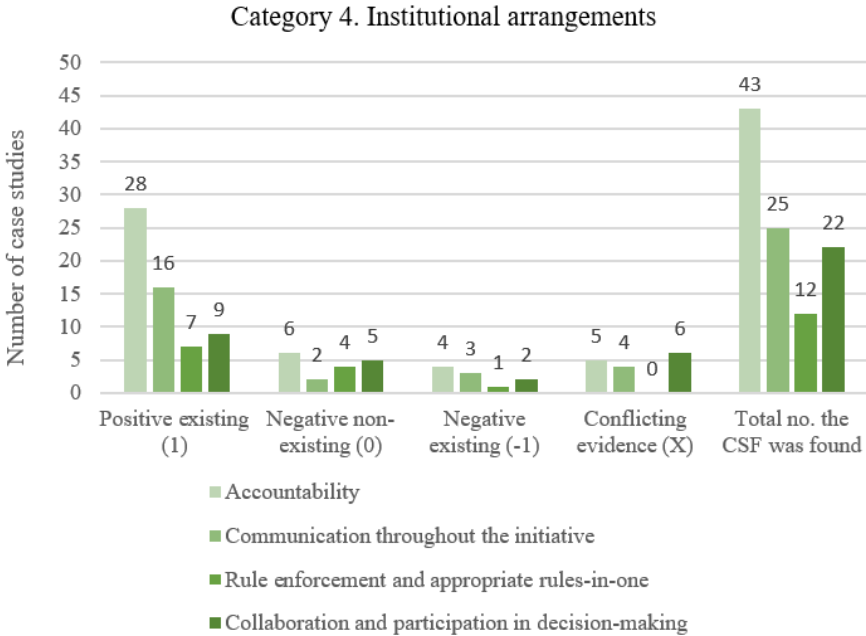


Figure 13. Outcomes of case study meta-analysis – Frequency and frequency per code – Category 4.

Regarding the survey, all factors scored high on the validity scale. The factor *accountability* scored 8x very important and 4x important. Note that *accountability* is referred to as the responsibility to the community in the survey. The factor *communication throughout the initiative* scored 8x very important, 3x important, and 1x no answer filled in. *Rule enforcement and appropriate rules-in-one*

scored 2x very important and 10x important. This is in contradiction to the estimated importance defined in the case study meta-analysis. Lastly, collaboration and participation in decision-making scored 8x very important and 4x important. These results indicate that the relative importance of all four CSFs is validated.

Regarding the interviews, the factors *accountability* and *communication throughout the initiative* are validated as important factors because these factors are mentioned positively in five out of six interviews. *Accountability* is often referred to as an external actor in the case studies. This is as well confirmed in the interviews. For example, “One of JED founders is an environmental NGO called Wisnu Foundation”. JED is working together with this foundation because this NGO “works with other villages who are interested in adapting JED’s eco-tourism concept and principles” (personal communication, July 20, 2020). In the Somkhanda Game Reserve is the NGO WILDTRUST co-managing with the Gumbi community in the form as an exit strategy. The goal is to give it in hands of the community within 5 years (personal communication, June 17, 2020). In Belize is the Belize Tourism Board (BTB), Belize Industry Association, and the Belize Hotel Association accountable for CBET in general (personal communication, June 2, 2020). However, “The BTB is mandated to promote Belize as a tourist destination but they are just promoting luxurious hotels, the caves, and the beaches” and excluding TEA. The success of TEA could be increased if they were included by the BTB and supported by the government and other locally Belizean NGOs for funding, monitoring, and evaluation (personal communication, July 2, 2020). The relative importance of *rule enforcement and appropriate rules-in-one* is as well-validated because this factor is mentioned in four out of six interviews. The *factor collaboration and participation in decision-making* is only mentioned in two interviews and therefore the relative importance remained neutral.

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#### 4.2.1.5. CATEGORY 5: EXTERNAL ENVIRONMENT

The category External environment contains the following four CSFs: *understanding of relevant state policies, monitoring and feedback, changes in biodiversity, and using project plans as working document* (see Figure 14). Two of these factors are estimated as moderately important with a score between 17 – 35 case studies, namely *monitoring and feedback* and *changes in biodiversity*. The other two factors scored <17 case studies and are therefore considered as not that important.

Regarding the codes, all factors are moderately influencing the importance based on the codes (1), (0), and (-1). Notable is that the factor *changes in biodiversity* is the only factor that scored high on conflicting evidence. The factor scored with 8 case studies above the threshold of 6 case studies for code (X) indicating that this factor needs more information to conclude the influence on the importance. Regarding the values, all factors are moderately influencing the importance based on the values and therefore remained neutral.

#### **Box 5. Conclusion Case Study Meta-analysis – Category 5.**

To conclude, none of these CSFs are estimated as important. Two CSFs, *monitoring and feedback* and *changes in biodiversity* are estimated as moderately important and the other two as not that important. Based on the codes and values, the importance of all factors remained neutral due to moderately outcomes. Only the factor *changes in biodiversity* scored high on code (X) indicating conflicting evidence. The factors are therefore not strengthening or weakening the importance.



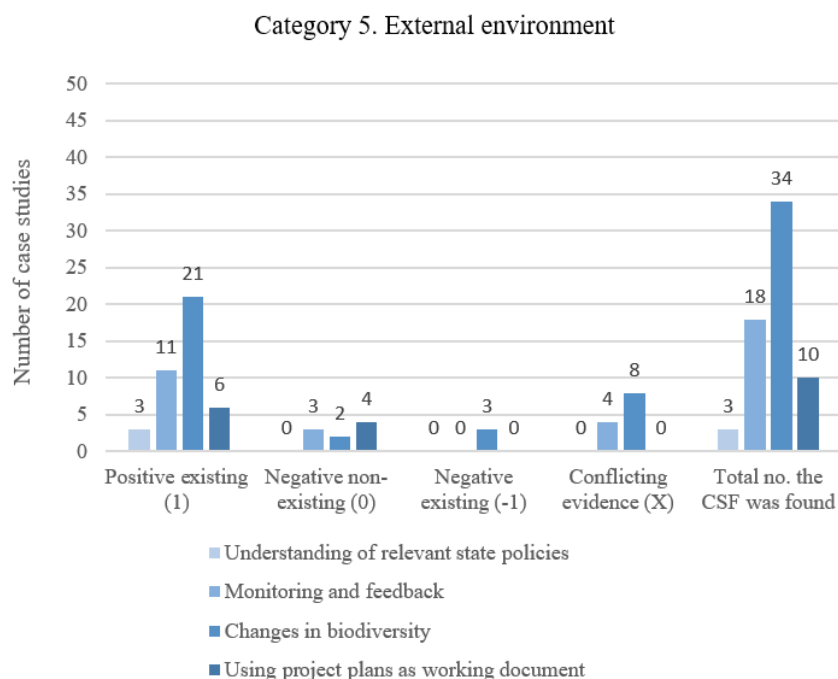


Figure 14. Outcomes of case study meta-analysis – Frequency and frequency per code – Category 5.

Regarding the survey, *understanding of relevant state policies* scored five times as very important, six times as important, and once as low importance. This indicates inconsistency and therefore the relative importance has remained neutral. The factor *monitoring and feedback* scored eight times as very important and four times as important. *Changes in biodiversity* scored five times as very important, six times as important, and one time as neutral. Lastly, the factor *using project plans as working document* scored three times as very important and nine times as important. Therefore, the importance of these factors are validated.

Regarding the interviews, only the factor *changes in biodiversity* is validated as an important factor because this factor is mentioned positively in four interviews. For example, the Tafi Atome Monkey Sanctuary has been able to protect and conserve the forest (about 100 ha), and protect the monkeys and other animals in the forest (personal communication, July 10, 2020). And TEA is successful “because we still maintain, control, own, and use our natural resources sustainably by helping it as a result of the many educational workshops on environmental conservation” (personal communication, July 2, 2020). The relative importance of monitoring and feedback remained neutral. The other two factors, *understanding of relevant state policies* and *using project plans as working document*, are the only factors that are not mentioned in the interviews and therefore their relative importance is not validated.

#### 4.2.1.6. CATEGORY 6: SUPPORT ACTIVITIES

The last category contains the CSFs *trainings*, *funding*, and *autonomy*. The factors *funding* and *autonomy* are estimated as important with a score of >35 case studies and *trainings* as moderately important with a score between 17 – 35 case studies (see Figure 15).

Looking at the codes, the factor *funding* scored above the threshold of 22 case studies for code (1) and above the threshold of 5 case studies for code (0) and is therefore considered as positively influencing the importance. The factor *autonomy* scored as well above the threshold of 22 case studies

for code (1) indicating that the importance is influenced positively. However, this factor scored with 9 case studies above the threshold of 3 case studies for code (-1), highlighting that this score is considered as a negative outlier. Therefore, this factor shows inconsistency. The factor trainings is moderately influencing the importance based on the codes.

Looking at the values, the factor *autonomy* scored with 38% high above the threshold of 8% for value (+) indicating that this outcome is an outlier and therefore extremely noteworthy. The factor *trainings* scored with 36% above the threshold of 32% for value (+-). Therefore, these two factors are positively influencing the importance based on these values. The importance of *funding* is negatively influenced based on value (-) since this factor scored with 28% above the threshold of 16%.

**Box 6. Conclusion Case Study Meta-analysis – Category 6.**

To conclude, the CSFs *autonomy* and *funding* is estimated as important and the CSF *trainings* as moderately important. Based on the codes, the importance of *autonomy* remained neutral due to inconsistency (i.e. the importance is not strengthened or weakened). Furthermore, the importance of *funding* can be strengthened and the importance of trainings remained neutral. Based on the values, the importance of *autonomy* and *trainings* can be strengthened. The importance of *funding* can be weakened because this factor is often only referred once. Notable is that the factor *autonomy* contains two outliers, one positive for value (+) and one negative for code (-1) which emphasizes the need for more in-depth information.

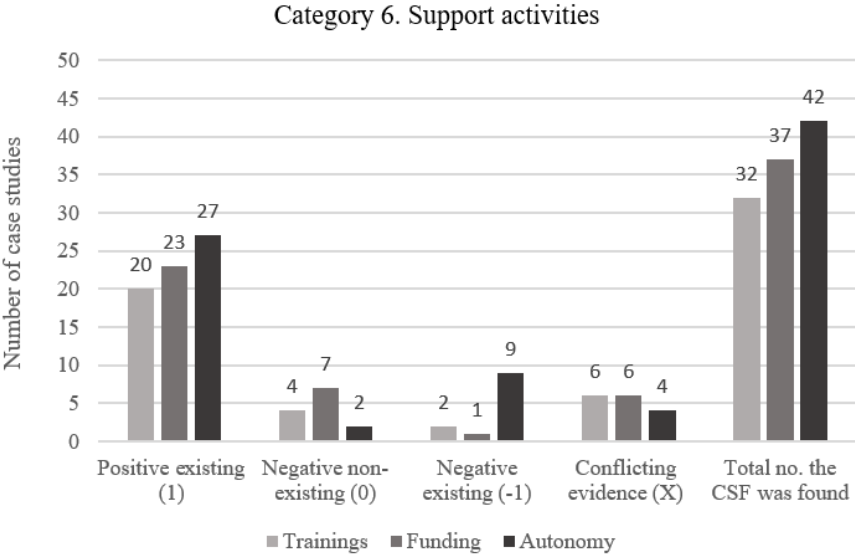


Figure 15. Outcomes of case study meta-analysis – Frequency and frequency per code – Category 6.

Regarding the survey, all factors scored high on the validity scale. *Trainings* scored 6x very important and 6x important. *Funding* scored as well as 6x very important and 6x important. *Autonomy* scored 8x very important and 4x important. These results indicate that the relative importance of all these CSFs is validated.

Regarding the interviews, the relative importance of all three factors is validated because the factors *funding* and *trainings* are mentioned positively in four interviews. According to WILDTRUST,

”Funding is extremely important to become self-funding eventually” (personal communication, June 17, 2020). According to TEA, CBET will be less successful if financial support disappears from e.g. governmental authority. Furthermore, TEA has leadership trainings, trainings arranged by Toledo Institute for Development and the Environment (TIDE), and trainings organized by the District Executives for refreshing the members at the beginning of the tourist season (personal communication, July 2, 2020). The factor *autonomy* is mentioned positively in all six interviews. However, autonomy is for each particular case study slightly different. For example, JED is a village ecotourism network wherein the communities “working as a collective action together”. The structure consists of three levels: Wisnu Foundation as founders and community owners, one Trustee to evaluate JED’s performance and give advice, and the management level containing a manager, administration and accounting staff, and the program coordinator (personal communication, July 20, 2020). Casa Matsiguenka belongs to two native communities with two managers (one from each community) for the lodge (personal communication, June 23, 2020). WILDTRUST is an NGO that is co-managing with the community. However, the game reserved is owned by the Emvokweni Community Trust (ECT) representing the Gumbi community (personal communication, June 17, 2020). And TEA is a community-based program, democratically electing or re-electing their leaders every 3 years. This program has two levels of governance, one District Executive Committee (oversees the management of the office) and one Village Group Executives (coordinates and managed the guesthouse and tours in their community) (personal communication, July 2, 2020).

#### 4.2.2. CBET DEFINITION IN PRACTICE

The survey also addressed the extent to which the participants agreed with the statements regarding the CBET criteria. These are the same criteria that were defined as suitable for recognizing CBET. The responses are summarized in Table 13.

Table 13. Overview of survey responses regarding the criteria for CBET. The frequency indicates how many participants agreed (based on the Likert scale) with the particular criteria for their enterprises.

Criteria	Frequency					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
(1) Involves travel to natural destinations	0	1	1	3	7	0
(2) Minimizes impacts	0	0	0	5	6	1
(3) Builds environmental awareness	1	0	1	3	7	0
(4) Provides benefits for conservation	0	1	1	5	5	0
(5) Provides benefits (and empowerment) for the local people	0	0	2	3	7	0
(6) Involves the local culture	0	0	0	5	7	0
(7) Supports human rights and land rights	0	0	1	5	5	1

As shown, most of the 12 participants (10 or more) agreed or strongly agreed that the particular criteria apply to their enterprise and involved community. This indicates that the criteria are suitable for recognizing CBET in practice and not only from a theoretical perspective.

These criteria are all contributing to the goal of CBET and therefore useful for enterprises and communities to take into account when figuring out which aspects of CBET can be developed, improved, or sustained since CBET itself is a broad definition. As Table 13 shows, environmental awareness is once overlooked, involves travel to natural destinations once, and provides benefits for conservation is overlooked in one particular case. This may indicate that not all criteria of CBET are addressed in the case studies while these criteria represent important aspects of CBET.

### 4.3. SYNTHESIS

The relative importance of the CSFs is defined by the three components and validity and their outcomes are presented in a synthesis showing the differences in outcomes. A summarized overview of the outcomes per category is presented in Table 14. By comparing these CSFs outcomes, the relative importance was determined. The outcomes of component 1 indicated that five factors are estimated as important and five as not that important. The moderately important factors are considered as important as well since the CSFs represent the expected factors for the success of CBET.

The factors were checked on validity by the survey and interview responses. Looking at the total overview of the survey responses, almost all factors scored high on the importance scale which validates that these CSFs are important for the success of CBET. Only the factor *alternative land use resources* and *understanding of relevant state policies* scored inconsistently and are therefore remained neutral (not validated, nor invalidated). Looking at the total overview of interview responses, the only *project plans as working document* and *understanding of relevant state policies* are not validated. This confirms the low outcomes for these two factors in the case study meta-analysis.

Component 1 and the validity determined the relative importance. However, this importance can be influenced by the outcomes of the codes (component 2) and the values (component 3). These outcomes provide slight differences in directions of relative importance. As result, some factors were ranked higher or lower than in the estimated importance outcomes. This resulted in the set of preconditions described in the next section.

Looking at the categories, it is difficult to compare them because of the differences between the CSFs and not having an equal number of factors in each category. However, two categories are noteworthy. Category 6 – Support activities – scored highest when looking at Table 14 indicating that this category is important for CBET. Category 5 – External environment – scored lowest indicating that this category maybe not that important.

#### **Box 7. Conclusion Synthesis – Relative importance.**

To conclude, the following factors are considered as relative important: *accountability*, *autonomy*, *alternative land use resources*, *infrastructure*, and *funding* followed by the other 12 CSFs (see Table 14) that needs to be taken into account based on their moderately importance and positive influence. These are validated by the survey and interview responses. The factors that seem not that important are *project plans as working document* and *understanding of relevant state policies* because these are not validated by the survey and/or interviews confirming the low score on their estimated importance. Therefore, these two factors were excluded in the set of preconditions. The ranking of the relative importance is eventually determined by the end results of the three components.

Table 14. Synthesis. If a cell is empty, no striking outcome was found. The symbol / indicates that two striking outcomes were found for the particular CSF. Symbols ++ or -- indicate if the factors are considered as an outlier.

Category	Critical Success Factor	Case study meta-analysis + In-depth analysis				
		Importance scale	Influence scale	Influence scale	Validity scale	Validity scale
		Component 1 (Frequency)	Component 2 (Codes)	Component 3 (Values)	Survey (Validity)	Interview (Validity)
(1) Resource system characteristics	Infrastructure	+	+	+/-	+	+-
	Attractiveness of the environment	-			+	+-
	Alternative land use resources	+	+/-	+/-	+-	+
(2) Group characteristics	Appropriate leadership	-	-		+	+-
	Wide awareness and knowledge of the initiative	+-			+	+
	Local interests and motivation	+-		-	+	+-
	Cultural and socio-economic differences in harmony	+-	+/-		+	+-
(3) Relationship between category 1 + 2	Fair allocation of benefits	+-	+	-	+	+
(4) Institutional arrangements	Accountability	+	+/-	++/+	+	+
	Communication throughout the initiative	+-		-	+	+
	Rule enforcement and appropriate rules-in-one	-			+	+
	Collaboration and participation in decision-making	+-			+	+-
(5) External environment	Understanding of relevant state policies	-			+-	-
	Monitoring and feedback	+-			+	+-
	Changes in biodiversity	+-			+	+
	Using project plans as working document	-			+	-
(6) Support activities	Trainings	+-		+-	+	+
	Funding	+	+	-	+	+
	Autonomy	+	+/-	++	+	+

#### 4.3.1. SET OF PRECONDITIONS FOR SUCCESSFUL CBET

Based on the synthesis described above, the following set of preconditions for successful CBET is determined, which are the generated hypotheses for further research (see Table 15).

Table 15. Set of preconditions for successful community-based ecotourism (CBET).

Relative importance



<b>Critical Success Factor</b>	<b>Explanation</b>
• Accountability	The enterprise, community, and involved external actors are taking responsibility for the management of CBET.
• Autonomy	CBET is self-governed by the enterprise and community indicating that they have ownership.
• Infrastructure	The transport, food/drink, and accommodation facilities are sufficient for maintaining CBET.
• Alternative land use resources	Other land use resources (e.g. farming) are sustaining CBET by providing a second (or first) source of income.
• Funding	The enterprise and community receive funding to facility CBET in their development and maintenance.
• Fair allocation of benefits	The benefits obtained by CBET are divided fairly among the enterprise and community members.
• Trainings	There are good trainings or workshops provided to the enterprise and community for developing their skills to develop and maintain CBET.
• Cultural and socio-economic differences in harmony	The norms and values of the enterprise and community are taken into account resulting in no conflicts, e.g. corruption or competing.
• Changes in biodiversity	There is a positive impact on biodiversity in the area due to CBET (e.g. less litter, less deforestation).
• Wide awareness and knowledge of the initiative	The enterprise and community are aware of CBET rules and activities and contain the knowledge to develop and maintain CBET.
• Collaboration and participation in decision-making	The enterprise and community are involved in the decision-making process regarding the development and maintenance of CBET.
• Monitoring and feedback	The CBET outcomes are monitored and evaluated over a certain period to determine the progress and need for improvement.
• Communication throughout the initiative	There are regular meetings or consultations to keep the enterprise and community informed.
• Local interests and motivation	The enterprise and community are interested and motivated to participate and be involved in CBET.
• Rule enforcement and appropriate rules-in-one	The rules and regulations concerning CBET are easy to understand and followed by a good enforcement system.
• Attractiveness of the environment	The enterprise and community are located in an area attractive for tourists increasing their willingness to pay for CBET.
• Appropriate leadership	The enterprise and community contain a fair, well-connected, and effective leader for CBET.

## 5. DISCUSSION

This chapter presents the outcome of this research divided among five sections. Firstly, the innovative aspects are highlighted to emphasize the contribution of this research concerning the theoretical background, methodological approach, and CBET in practice (see section 5.1.). Secondly, the unexpected results are discussed and placed in the context of current literature (see section 5.2.). Thirdly, the limitations of this research are discussed in section 5.3. which led to several future research suggestions presented in section 5.4. Lastly, section 5.5. describes the established policy recommendation for CBET initiatives.

### 5.1. INNOVATIVE ASPECTS

#### 5.1.1. THEORETICAL IMPLICATIONS

CBET is seen as an alternative bottom-up strategy to offer a livelihood without negatively impacting the environment. However, these initiatives have a high failure rate (Ohl-Schacherer et al., 2008). Therefore, this research explored what preconditions are important for the success of CBET. To investigate this, this research developed a theoretical framework containing 19 CSFs from the fields of entrepreneurship, sustainability, tourism, and governance. These factors were applied to the case study meta-analysis to determine the relative importance of the CSFs by looking at the 'relative weight' and 'direction' of the CSFs within a large-N of case studies. Furthermore, the factors were clustered into six categories to not focus only on the list of factors but to give a direction to possible configurations of the factors that may bear a causal relationship (Agrawal, 2001). However, this needs to be further investigated.

In this research, the CSFs were tested on 50 case studies addressing CBET to gain insights concerning the relative importance, responses from the interviews, and surveys validated these insights. The findings resulted in a set of preconditions for the success of CBET. Therefore, the developed theoretical framework is suitable for exploring and understanding the preconditions for the success of CBET. However, the theoretical framework contains several limitations that are addressed in section 5.3. This was unavoidable since the framework has never been applied before on existing literature or in practice. Therefore, further research is needed to adjust the framework to a more in-depth analysis using different approaches (see section 5.4.). Despite this, this research focused on a global scale to generalize the preconditions which increased the reliability that this framework can be applied on a broad scale of enterprises in a wider context (Byczek, 2011a) and is, therefore, the basis for modifying the theoretical framework further.

#### 5.1.2. METHODOLOGICAL ASPECTS

This research used different quantitative and qualitative methods in the form of triangulation to identify the set of preconditions. By combining the case study meta-analysis with insights gained from a survey and interviews, the reliability and validity of the results have been increased. This is argued in the method section. After conducting this triangulation, it can be concluded that conducting a case study meta-analysis is a suitable contribution to explorative research. In particular, this analysis was suitable for testing a wide network of factors, not explicitly linked to CBET on specific CBET case studies. This presented a robust set of preconditions that can be applied universally in the context of CBET. Therefore, this research provided relevant- and inspiring insights concerning case study meta-analysis in general, which can be used as a basis for identifying correlations and configurations.

Furthermore, the use of triangulation made it possible to validate the results with responses obtained from a survey and interviews. The obtained results indicated that the CSFs are responsible for the success of CBET which increased the internal validity (Bryman, 2012). This increased the reliability of the results from the case study meta-analysis. Therefore, this research suggests that triangulation is a suitable method for analyzing complex concepts such as CBET. However, further research is needed to establish this internal validity by identifying configurations and calculating the correlation of the independent variables and the dependent variable.

## 5.2. UNEXPECTED RESULTS

The CSFs were selected by their impact on the success of community-based enterprises, which were derived from literature claims. These factors provided insights into the success of CBET. Therefore, all factors were expected to be contributing to the success of CBET. However, some unexpected results were found indicating that little, contrasting, or no evidence were found in the case studies about the CSFs and their relevance and relative importance.

The factor *monitoring and feedback* scored lower on relative importance in contrast with the information provided in the literature (i.e. monitoring is often described as an important factor) (Lonn et al., 2018; Mearns, 2011). The factor *fair allocation of benefits* is defined as moderately important while it is a part of the goal of CBET to ensure socio-economic development and environmental management (Kiss, 2004). *Appropriate leadership* is not that important considering the outcomes and contradicting information was provided in the interviews. However, it can still be considered as relative important for specific locations and is therefore ranked as the lowest precondition (Pornprasit & Rurkkhum, 2019).

*Alternative land use resources* is often discussed in the case studies explaining that CBET is not the main source of income for the local people but that alternative land use resources such as farming and hunting are important to maintaining next to CBET (Nielsen, 2001; Timothy & White, 1999). These alternative resources contribute to CBET, for example, by delivering food or giving cultural workshops and are confirmed by the interviews with JED and WILDTRUST (personal communication, June 13, 2020; personal communication, June 17, 2020). However other case studies mentioned that CBET is the main source of income instead of e.g. farming (Byczek, 2011a; Taylor et al., 2008). Therefore, both interpretations were taken into account during the coding process.

To survey responses, almost all CSFs were validated as important or extremely important. Only *alternative land use resources* and *understanding of relevant state policies* scored neutral. However, the interviews did not validate the factors *using project plans as working document* and *understanding of relevant state policies* as important. Therefore, these two were excluded in the final set of preconditions. Highlighting, in total 17 preconditions contribute to the success of CBET.

Looking at the influence on the relative importance, it was unexpected that four factors showed inconsistency, namely *autonomy*, *accountability*, *alternative land use resources*, and *cultural and socio-economic differences in harmony*. This can be explained by the found interlinkages between factors and may influence the success of the management. Thus emphasizing the importance of configuration (Baggio et al., 2016). It was expected for *alternative land use resources* to be inconsistent since the case studies itself discussed contradicting insights, which explains the high score on code (-1). The factor *cultural and socio-economic differences in harmony* remains vague when looking at the contradicted outcomes of code (0) and (-1). This can be explained by the many conflicts addressed in the case studies. Furthermore, more information is required for the factor *changes in biodiversity* because this is the only factor scoring high on conflicting evidence.



The factors *autonomy* and *accountability* were defined as outliers. This is unexpected for *autonomy* when looking at the codes since self-governance is linked to CBET (i.e. the communities control CBET) (Denman, 2001). This factor scored highest on code (-1) indicating that autonomy may influence CBET negatively. However, this can be explained by the found interlinkages. Self-governance is dependent on many other factors such as accountability, funding, leadership, etc. and therefore scored inconsistently. Besides, *Autonomy* scored highest on value (+) indicating that this factor is often discussed and explained in the case studies. In contradiction, the factor *accountability* was expected to be an outlier because of the high scores on frequency, codes, and values and was expected to be inconsistent because of the involvement of external actors in assisting communities (Musavengane & Kloppers, 2020).

To highlight, the external actors were not included in the scope of this research. However, they are indirectly related to CBET and in particular to *accountability, funding, trainings, and autonomy*. This is validated by the interviews. External actors dominate in the factor *accountability* and are therefore taken into account for this factor during the coding process. This indicates that external actors are important concerning the development of CBET. However, it is not explicitly investigated how this involvement of external actors is divided. Future research is necessary for this.

As last, there were some missing factors identified during the coding process, which are considered as moderately important for the success of CBET, namely *marketing, governmental support, gender inequality, and market structure*. The factor *marketing* is often mentioned in interviews as well. According to TEA (personal communication, July 2, 2002), marketing is extremely important to consider for improving the success of CBET but the understanding of marketing models is limited (Donohoe & Needham, 2008). Therefore, marketing needs further investigation to be in balance. Otherwise, CBET may lead to mass tourism, which is a different concept of tourism that has negative impacts on the environment and socio-economic development (Ma et al., 2019a; A. Stronza, 2005). The goal of CBET will be not achieved then.

### 5.3. LIMITATIONS

In this research, several limitations have been encountered. Firstly, the scope of the research is only focusing on the enterprise and involved community. No results were gained for other stakeholders such as NGOs, Tourists, and Governmental authorities. In the in-depth analysis, it became clear that external actors do have a contribution to the success of CBET by, for example, *accountability, funding, rules, and trainings*. External actors were often described as indirectly being responsible for parts of the management. Therefore external actors were included in the coding process for the factor *accountability*. Furthermore, this scope does not include the different stages of CBET (e.g. developing or running stage) and does not address long-term sustainability as a time scale. This is necessary for further research because projects are changing during the years (Denman, 2001; Ngece, 2002). However, the scope of this research increased the reliability and validity of the set of preconditions and made it possible to generalize the outcomes by the coding process (Bryman, 2012).

Secondly, the theoretical framework that was developed may not be complete. During the coding process is this validated because four missing factors were found in the case studies: *marketing, gender inequality, governmental support, and market structure*. Highlighting the factor *marketing* as a 'blind spot' for this framework because it was explicitly told during the interviews that this factor is important for the success of CBET (TEA, personal communication, July 2, 2020; JED, personal communication, June 13, 2020). Furthermore, the factors were analyzed separately whereby no

configurations were identified. However, there are a few interlinkages recognized as additional findings and the factors were clustered into six categories based on the clustering from Agrawal (2001).

On the opposite, this framework contained a broad overview of factors from four different fields (see literature review, Figure 2) that were indirectly related to CBET. The factors are selected via a literature review and were narrowed down by looking at the frequency. Furthermore, 19 factors is a suitable number for investigating. Including more factors would make it unclear. More importantly, the framework provided new insights because it has never been applied before.

Lastly, the used methods contain several limitations. Concerning the case study meta-analysis, the coding process involved information bias because of missing data. There was only 1 case study in which all CSFs were found. Therefore, the survey and interviews were used to validate the results (Bryman, 2012). Besides, the coding process identified a trend of trade-offs which decreased the subjectivity and increased the reliability (Bryman, 2012). Furthermore, no standardized approach was possible because each case study addressed a different approach, research question, objective, and CBET definition. Furthermore, each case study defined success differently. This substantiates why no correlation was possible between the CSFs and the actual success of CBET. However, the results present a robust set of preconditions based on descriptive statistics, including the boxplots. To attempt standardizing the conceptualization of CBET, seven criteria have been used from Honey (2008) and were revised into more comprehensive criteria.

Concerning the survey and semi-structured interviews, self-reporting led to bias in the survey responses because participants were required to respond to closed questions without interference (Bryman, 2012). The participants were not randomized selected but involved participants that were interested in this research. Furthermore, the responses are a small-N compared to the case studies. The interviews were limited by language barriers and are a small-N either. However, the focus is on case study meta-analysis, the survey and interviews were only used for validation. These small-N's are understandable due to the current situation of the pandemic affecting the tourism industry negatively. As last, the results of the case study meta-analysis and survey are pseudo precision. However, the consistency and transparency of the coding process provided accurate results.

#### 5.4. FUTURE RESEARCH

This research aimed at exploring the CSFs to identify a set of preconditions for successful CBET. The obtained results provided several insights and building blocks for future research. Based on these insights the following theoretical avenues were made on which new research topics can be identified.

- This exploratory research generated hypotheses, which resulted in the set of preconditions. Further research is necessary to test these hypotheses by using, for example, natural/quasi-experiments. This kind of research investigates the causal impact of an intervention. Therefore, these experiments are suitable to measure the actual success of CBET enterprises (Bryman, 2012). After defining the actual success, a correlation can be calculated based on the scores of the CSFs and the actual success by for example an Exploratory Factor Analysis (Bryman, 2012).
- This exploratory research highlighted the need for identifying the importance of configurations. This will increase the insights in the preconditions for successful CBET. The factors that often go together in successful case studies will be determined by clustering the relative importance of the CSFs. The categories and interlinkages addressed in this research indicate already the first step to defining the configurations. Qualitative Comparative Analysis can be used (Baggio et al., 2016).

- The theoretical framework represents the CSFs and can be elaborated by adding the missing factors and by investigating the factors on different time scales (i.e. short-term vs. long-term perspective to sustain CBET), different stages (i.e. when CBET is established, still developing, or in the running), and different geographical scales (i.e. local, regional and national scale). Furthermore, more accurate data can be generated when the factors will be analyzed from the external actor's perspective (e.g. NGOs, and governmental authorities) because more stakeholders are involved in CBET.

## 5.5. POLICY RECOMMENDATIONS

The results of this research provided policy advice concerning the CSFs, the set of preconditions, and additional findings. This advice is made for existing CBET enterprises and communities and can be useful for other stakeholders to understand the perspective of the involved case studies.

- The set of preconditions for successful CBET was created for recommending the relative CSFs to existing CBET enterprises and communities. Therefore, to contribute this knowledge to the case studies that participated in this research, an infographic was made (see Figure 16). This is an informative illustration to present the set of preconditions in an understandable and simplified way. The advice that follows from this: follow this set of preconditions to see if improvements can be made. This set (may) figures as a guideline to maintain, or sustaining the success of CBET. Note that the missing factor marketing is included in this infographic because it is considered as a 'blind spot' in the literature.
- Following the results of the in-depth analysis, it is recommended to focus on the management of CBET concerning *autonomy*, *accountability*, and *alternative land use resources* because of inconsistency. These inconsistent results may indicate that the biggest challenges are related to these factors. Therefore extra attention is required on these factors by the enterprise and community.
- Marketing is considered as a missing factor to achieve the goal of CBET. However, it is recommended to balance the promotion of CBET in a way that it will not lead to mass tourism because this leads to negative impacts on the biodiversity and local people, the CBET goal will not be achieved then (Ma et al., 2019a; A. Stronza, 2005).
- Following the results of the CBET definition, it is recommended to look at the following criteria for recognizing CBET: (1) *involves travel to natural destinations*, (2) *minimizes impacts*, (3) *builds environmental awareness*, (4) *provides benefits for conservation*, (5) *provides benefits (and empowerment) for the local people* and (6) *involves the local culture*. These criteria were validated as suitable aspects of CBET and may be useful to standardize the conceptualization of CBET. By providing a more comprehensive understanding of CBET, the case studies can discover new insights on where the enterprise should focus on concerning the management to increase its success.

# COMMUNITY-BASED ECOTOURISM

THE ROAD TO SUCCESS

## SET OF PRECONDITIONS



The enterprise, community, and external actors take responsibility concerning the management  
The enterprise and community have ownership



The transport, food/drink, and accommodation facilities are sufficient  
The land use resources are sustaining CBET (e.g. farming)



The enterprise and community receive funding to facility CBET  
The benefits are divided fairly among the enterprise and community



There are good trainings provided for developing their skills  
The norms and values of the enterprise and community are taken into account



There is a positive impact on the biodiversity in the area  
The enterprise and community have sufficient knowledge and awareness to develop and maintain CBET



The enterprise and community are involved in the decision-making process  
The CBET outcomes are monitored and evaluated



There are regular meetings to keep the enterprise and community informed  
The enterprise and community are interested and motivated to participate in CBET



The rules and regulations are easy to understand and followed by a good enforcement system  
The area is attractive for tourists



The enterprise and community contain a fair, well-connected and effective leader  
The marketing is suitable for promoting CBET



Figure 16. Infographic - set of preconditions for the success of CBET.

## 6. CONCLUSION

This research aimed to create a set of preconditions for successful community-based ecotourism by analyzing the relative importance of the critical success factors and to make recommendations based on the set of preconditions. Eventually, this exploratory research provided insights on the relative importance which is defined by three components:

- (1) The frequency of the CSF provided an estimation of the ‘relative weight’ of each factor;
- (2) The frequency of codes provided the ‘relative direction’ indicating if the importance is influenced positively or negatively by each factor; and
- (3) The frequency of the values indicated the ‘relative direction’ as well.
- (4) Eventually, the relative importance was ranked by using different scales in a synthesis.

These steps were followed to create the set of preconditions, which answered the research question for this research: *What factors contribute to the success of community-based ecotourism?*

To explore this question, 19 critical success factors (CSFs) were selected and ordered in six categories. These factors were expected to contribute to successful CBET and were applied on 50 case studies regarding CBET explicitly to validate if they are suitable as a precondition. For this, a case study meta-analysis was conducted combined with a survey and interviews to validate the results of the three components. This led to the following main results divided per category.

Category 1 – Resource system characteristics – contained two factors that were estimated as important: *infrastructure* and *alternative land use resources*, one factor as moderately important.

Category 2 – Group characteristics contained no factors estimated as important and three as moderately important.

Category 3 – Relationship between category 1 + 2 – estimated one factor as moderately important.

Category 4 – Institutional arrangements – estimated one factor as important: *accountability* and two other factors as moderately important.

Category 5 – External environment – contained no factors estimated as important and two factors as moderately important.

Category 6 – Support activities – contained two factors that were estimated as important: *autonomy* and *funding* and one factor as moderately important.

This indicated that 5 factors were estimated as important based on the ‘relative weighted’, followed by 9 factors as moderately important and 5 as not that important. These outcomes were influenced positively or negatively by the ‘relative direction’ of the codes and values. This slightly changed the ranking of the factors. As last, the relative importance is checked on validity. This emerged into the synthesis presenting the main results (see Table 14). The factors *accountability*, *autonomy*, *alternative land use resources*, *infrastructure*, and *funding* were ranked highest on relative importance. Followed by the other 12 CSFs, considered as relative important based on their moderate importance and positive influence. these were validated by the survey and interview responses. The factors *project*

*plans as working document* and *understanding of relevant state policies* were not validated as an important factor and therefore, these two factors were excluded in the set of preconditions. The ranking of the relative importance is eventually determined by the results of the three components.

These findings resulted in the set of preconditions, i.e. set of generated hypotheses, and contain 17 critical success factors that were validated in the contribution to successful CBET (see Table 15). Hereby, the research question was answered. The 5 factors that scored highest are *accountability* followed by *autonomy*, *infrastructure*, *alternative land use resources*, and *funding*. These 17 factors contribute to the success of CBET. However, some additional findings were found concerning the CBET definition, missing factors, and interlinkages recognizing configurations. These results were obtained to make recommendations. However, the set of preconditions indicates which CSFs are necessary for endeavoring successful CBET and is therefore a reliable first step. Further research is necessary to test the generated hypotheses, to calculate the correlation between the factors and the actual success, and to identify the configuration between the factors providing new insights concerning the success of CBET enterprises.

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## APPENDIX I

Table 16. Summary of explanatory factors found in literature reviews.

<b>Authors</b>	<b>Explanatory factors</b>
Barnes & van Laerhoven (2015)	Well-defined boundaries of the resource Past successful experiences – social capital Meetings CPR appropriation rules-in-one: Rules are simple and easy to understand Locally devised access and management rules Ease in monitoring and enforcement of rules Graduated sanctions Availability of low cost adjudication Accountability of monitors and other officials to users Restrictions on harvests matched to regeneration of resources Understanding of relevant state policies Wide awareness of CPR institutions and organization Inclusion of all CPR users' identities and interests Perceived management capacity of CPR users: Confidence in own capacities Appropriate leadership Perception that local authority is not undermined by external actors Appropriate connections Sufficient financial and material resources Confidence that future benefits will be fairly allocated Supportive external environment
Catalano et al. (2019)	Sharing learning experiences
Clarke (1999)	Communication throughout the project Clear objectives and scope Breaking the project into `bite sized chunks' Using project plans as working documents
De Koning et al. (2017)	Incentives for community engagement Formal mechanisms for power sharing Local ownership of resources Downward accountability Mechanisms for building trust Adaptive approach to performance assessment and improvement
Dodds et al. (2018)	Participatory planning and capacity building Collaboration and partnerships facilitating links to market Local management/empowerment of community members Establishment of environmental/community goals Focus on generating supplemental income for long-term community sustainability
Gruber et al. (2018)	Biological factors: Changes in the amount of targeted conserved species Biodiversity Total area conserved Environmental factors: Environmental health Soil quality Water quality Species index Habitat fragmentation and edge effect Habitat gap analysis

	Institutional/policy factors: Government policy Local government organizations NGOs Management plans Funding Social/cultural/economic factors: Population change Urban pressures Major development projects Encroachment Agriculture Local participation Culture edge effect Restoration Tourism Conflict factors: International fragmentation International conflict Refugee state Local/regional conflict Conflict over resources
Hamzah & Mohamad (2012)	Dynamic leadership and organization The setting up of a tourism cooperative Partnerships with government agencies Tourism industry players Strong commitment to biodiversity conservation
Hasan et al. (2020)	Requirements for day-to-day collective action: Regular meetings Presence of rules: On entry On appropriation Rule enforcement: Monitor system Graduated sanctioning system The monitoring of monitors Low-cost adjudication Requirements for long-term collective action: Understanding of relevant policies Participation of users in decision-making Management capacity of resource users Fair allocation of benefits Ability of users to pay Willingness of users to pay Awareness of users Dynamic leadership Supportive external environment
Lee & Bond (2018)	Long-term monitoring Locally based monitoring
Manyara & Jones (2007)	Community sensitization Awareness Community empowerment Effective leadership Community capacity building

Measham & Lumbasi (2013)	<p>Failing due to:</p> <ul style="list-style-type: none"> <li>Top down project initiation</li> <li>Lack of economic incentives</li> <li>Lack of autonomy</li> <li>Incompatible livelihoods</li> <li>Opportunity costs</li> </ul>
Ofori (2013)	<p>Communication factors:</p> <ul style="list-style-type: none"> <li>Clarity of mission and goals</li> <li>Effective communication</li> <li>Effective consultation with project stakeholders</li> <li>Well-laid out specifications</li> <li>Realistic cost and time estimates for the project</li> </ul> <p>Commitment factors:</p> <ul style="list-style-type: none"> <li>Top management support and commitment</li> <li>Adequate resources for the project</li> <li>Commitment to standards and regulations to ensure quality</li> <li>Commitment to client/beneficiary satisfaction</li> </ul> <p>Competency factors:</p> <ul style="list-style-type: none"> <li>Competency and experience of the project personnel</li> <li>Use of superior and appropriate technology for the project</li> </ul> <p>Coordination factors:</p> <ul style="list-style-type: none"> <li>Good leadership</li> <li>Teamwork</li> <li>Monitoring and Feedback</li> <li>Client involvement</li> </ul>
Parker & Khare (2005)	<p>Environmental factors:</p> <ul style="list-style-type: none"> <li>Environmental quality</li> <li>Site boundaries</li> <li>Water</li> <li>Opportunity costs</li> </ul> <p>Community factors:</p> <ul style="list-style-type: none"> <li>Community partnership</li> <li>Community definition</li> <li>Community dialogue</li> <li>Poverty and social inclusion</li> </ul> <p>Economic factors:</p> <ul style="list-style-type: none"> <li>National political environment</li> <li>Adequate legal systems and security</li> <li>Infrastructure</li> <li>Government policy</li> </ul>
Runhaar & Polman (2018)	<ul style="list-style-type: none"> <li>Alignment of interests and complementarity of the partners</li> <li>Motivation derived from meeting peers</li> <li>Clarity and congruency of objectives</li> <li>Capabilities and accountability</li> <li>Communication</li> <li>Learning and commitment</li> <li>Reduced transaction costs by partnership</li> <li>Willingness of the actors to be involved to participate</li> </ul>
Smit (n.d.)	<ul style="list-style-type: none"> <li>Ownership and empowerment</li> <li>Increase support of tourism activities</li> <li>Equal decision-making and harmonious relationships</li> <li>Reduce consumptive land-use and change the local's attitudes</li> <li>Local interests</li> <li>Enhance the capacities of local stakeholders</li> <li>Protect the resource at stake</li> </ul>



	<p>Decisions with more success and less conflict</p> <p>Operate in a sustainable way</p> <p>Better understanding of the stakeholder's needs and expectations</p> <p>Clarify the goal towards local issues</p> <p>Strengthen community development</p> <p>Establish good relations</p> <p>Empower communities to decide over their own needs</p> <p>Increase responsibility</p> <p>Benefits and support for the communities</p>
Sterling et al. (2017)	<p>Stakeholder engagement:</p> <p>Identifying stakeholders</p> <p>Timing and degree of stakeholder engagement</p> <p>Recognizing and respecting stakeholder values and institutions</p> <p>Stakeholder motivation for engagement</p> <p>Effective leadership</p> <p>Effective partnerships</p>
Thakadu (2005)	<p>Broadly based participation</p> <p>Credibility and mutual trust</p> <p>Willingness and readiness</p> <p>Perceived benefits and their distribution</p> <p>Socio-economic and cultural stratification</p>
Treephan et al. (2019)	<p>Strong relationship between different groups and individuals</p> <p>Roles and responsibilities are delegated according to the specific skill set of each community member</p> <p>Ecotourism management suits the local community lifestyle and is a reflection of traditional community practices</p> <p>The conscience of people in the community regarding culture and lifestyle is used to inform the management process and increase the level of income generated for the local area</p> <p>The fertility of natural resources and the surrounding environment as an identifying factor of the community</p>
WONDIRAD et al. (2020)	<p>Factors affecting ecotourism stakeholder collaboration:</p> <p>Poor tourism governance</p> <p>Lack of awareness amongst stakeholders about the relevance of collaboration</p> <p>Poor culture (tradition) of collaboration in the society</p> <p>Resource constraints</p> <p>Lack of trust and mutual understanding amongst ecotourism stakeholders</p> <p>Lack of sufficient and sustained discussion and communication amongst ecotourism stakeholders</p> <p>The limited size of the ecotourism sector in the country and in the region receives little attention within local communities and private ecotourism enterprises due to its smallness in scale</p> <p>Existence of diverse interests and unhealthy competition amongst ecotourism stakeholders</p> <p>Power friction within governmental organizations and amongst government, local communities and private ecotourism enterprises</p> <p>Conflicts amongst ethnic tribes</p>
Yalegama et al. (2016)	<p>Enabling community environment</p> <p>Measurable project management outcomes by village organization</p> <p>Community project management engagement</p>

## APPENDIX II

Table 17. The selected cases for the case study meta-analysis, based on the Case Study Selection Criteria.

No.	Name case study	Reference
1	Tafia Atome community	(Afenyo & Amuquandoh, 2014)
2	Expediciones Sierra Norte	(Holguín et al., 2014)
3	REDSJO network	(Holguín et al., 2014)
4	Ghalekharka-Sikles ecotrek	(Nyaupane & Thapa, 2004)
5	Gales Point Manatee	(Belsky, 1999)
6	Binsar Wildlife Sanctuary	(Bhalla et al., 2016)
7	Yeak Laom community	(Ven, 2016)
8	La Ventanilla	(Foucat, 2002)
9	Jaringan Ekowisata Desa (JED) village network	(Byczek, 2011b)
10	Bribri project	(Taylor et al., 2008)
11	Ngöbe-Buglé community project	(Taylor et al., 2008)
12	APROMOVEN	(Taylor et al., 2008)
13	MONSELVA	(Taylor et al., 2008)
14	FUNDICCEP	(Taylor et al., 2008)
15	The Teribe project	(Taylor et al., 2008)
16	Omoljica village	(Đukić et al., 2014)
17	Kopačevo village	(Đukić et al., 2014)
18	Boabeng-Fiema Monkey Sanctuary	(Eshun et al., 2014)
19	Lavena Backpacker Lodge and Coastal Walk	(Farrelly, 2011)
20	Malaysian Nature Society	(Ghasemi & Hamzah, 2013)
21	Miso Walai homestay	(Hamzah & Mohamad, 2012)
22	Casa Matsigenka lodge	(Ohl-Schacherer et al., 2008)
23	Tumani Tenda ecocamp	(Jones, 2005)
24	Arumchi village	(Kim & Park, 2017)
25	Upo Kasiyeonkot village	(Kim & Park, 2017)
26	Jumae village	(Kim & Park, 2017)
27	Yupo village	(Kim & Park, 2017)
28	Haebari village	(Kim & Park, 2017)
29	Jijok Gaet village	(Kim & Park, 2017)
30	Sea Canoe company	(Kontogeorgopoulos, 2005)
31	Chambok CBET program	(Nyaupane & Thapa, 2004)
32	Giant panda habitats in Sichuan Province	(Ma et al., 2019b)
33	Malealea lodge and pony-trekking centre	(Mearns, 2011)
34	Mesomagor community	(Mensah, 2017)
35	WILDTRUST and Gumbi community	(Musavengane, 2019)
36	Ololosokwan village	(Nelson, 2004)
37	Sinya village	(Nelson, 2004)
38	Lake Natron	(Nelson, 2004)
39	Las Marias, Pech community	(Nielsen, 2001)
40	Raista, Miskito community	(Nielsen, 2001)
41	Plaplaya, Garifuna community	(Nielsen, 2001)
42	Toledo Ecotourism Association (TEA)	(Timothy & White, 1999)
43	The Chiphat research site	(Reimer & Walter, 2013)
44	Grass-roots CBET project on Fergusson Island	(Sakata & Prideaux, 2013)
45	Kampung Kuantan Firefly park	(Mohd Shahwahid et al., 2013)
46	Chobe Enclave Community Trust	(Stone, 2015)
47	Posada Amazonas	(A. Stronza, 2005)
48	Koh Yao Noi	(Walter, 2009)
49	Sirubari village	(Walter et al., 2018)
50	Ghalegaun village	(Walter et al., 2018)

## APPENDIX III

Table 18. Overview of used values to display the boxplots. These were found by the scores defined by the coding process.

<b>Boxplot elements</b>	<b>Frequency CSFs</b>	<b>Frequency Codes</b>				<b>Frequency Values</b>		
		(1)	(0)	(-1)	(X)	(+)	(+-)	(-)
<b>Minimum</b>	3	3	0	0	0	0	0	3
<b>Quartile Q1</b>	17	8	2	1	1.5	1	6.5	4.5
<b>Quartile Q2</b>	23	16	4	2	4	2	10	7
<b>Quartile Q3</b>	35.5	22	5.5	3.5	6	4	16	8
<b>Maximum</b>	43	31	8	9	8	19	26	14
<b>Mean</b>	25.9	15.9	3.9	2.5	3.6	3.7	11.5	7.1
<b>IQR*</b>	18.5	14	3.5	2.5	4.5	3	9.5	3.5
<b>Outliers</b>	No	No	No	Yes	No	Yes	No	No

\* = INTERQUARTILE RANGE