**IBN HALDUN UNIVERSITY**
**SCHOOL OF GRADUATE STUDIES**
**DEPARTMENT OF FINANCIAL ECONOMICS**

**MASTER'S THESIS**

# THE IMPACT OF SUSTAINABLE DEVELOPMENT GOALS ON THE SUCCESS OF ONLINE CROWDFUNDING CAMPAIGNS: AN ANALYSIS THROUGH NATURAL LANGUAGE PROCESSING TECHNIQUES

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**ISTANBUL, 2025**

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**by**
**INZIMAM UR REHMAN**

**A thesis submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of master's in financial economics.**

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**ISTANBUL, 2025**

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# ÖZ

## SÜRDÜRÜLBİLİR KALKINMA AMAÇLARININ ÇEVRİMİÇİ KİTLE FONLAMASI KAMPANYALARININ BAŞARISI ÜZERİNDEKİ ETKİSİ: DOĞAL DİL İŞLEME TEKNİKLERİYLE BİR ANALİZ

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Çevrimiçi kitle fonlaması platformları, Birleşmiş Milletler'in Sürdürülebilir Kalkınma Amaçları'nın (SKA'ların) gerçekleştirilmesi için kaynakların harekete geçirilmesinde önemli bir alternatif finansman yöntemi olarak öne çıkmaktadır.

Bu çalışma, SKA uyumunun kampanya başarısı üzerindeki etkisini incelemekte ve ayrıca ödül bazlı kitle fonlaması platformlarında hangi bireysel sürdürülebilir kalkınma amaçlarının daha başarılı olduğunu analiz etmeyi amaçlamaktadır. Bu bağlamda, 2020 ile 2024 yılları arasında başlatılan 138.393 Kickstarter kampanyasına ait veriler kullanılarak, kampanya açıklamalarının Doğal Dil İşleme (NLP) teknikleriyle analiz edilmesi ve kampanya başarısının doğal logaritması alınmış toplanan fon miktarı ile destekçi sayısı üzerinden ölçülmesi yoluyla, SKA uyumu ile kampanya başarısı arasındaki ilişki; kampanya süresi, duygu analizi, proje kategorisi ve coğrafi bölge gibi kontrol değişkenleri dikkate alınarak, En Küçük Kareler (OLS) regresyon modeli ile değerlendirilmiştir.

Bulgular, SKA uyumunun kampanya başarısıyla istatistiksel olarak anlamlı ve pozitif bir ilişkiye sahip olduğunu göstermektedir. Özellikle, çevresel konularla ilgili amaçlar olan SKA 6 (Temiz Su ve Sanitasyon), SKA 13 (İklim Eylemi) ve SKA 14 (Sudaki Yaşam) fonlama başarısını önemli ölçüde artırmaktadır. Buna karşılık, temel insani

ihtiyaçlara odaklanan SKA 1 (Yoksulluğa Son), SKA 2 (Açlığa Son), SKA 3 (Sağlıklı Bireyler) ve SKA 4 (Nitelikli Eğitim) gibi hedeflere yönelik kampanyaların daha az fon ve destekçi çektiği görülmektedir.

Ayrıca, kampanya açıklamalarında kullanılan olumlu duyguların kampanya başarısına katkıda bulunduğu, kampanya süresinin ise başarı üzerinde olumsuz etkisi olduğu saptanmıştır. Coğrafi bölge ve kategori açısından da anlamlı farklılıklar gözlemlenmiş; Asya-Pasifik bölgesinde başlatılan ve Çizgi Roman, Tasarım ve Oyun gibi kategorilere ait kampanyaların, Kuzey Amerika'daki ve Sanat kategorisindeki kampanyalara kıyasla daha başarılı olduğu tespit edilmiştir.

Elde edilen sonuçlar, kampanya oluşturucular için pratik öneriler sunmakta; özellikle çevresel ve adalet odaklı SKA temalarının kampanyalarda stratejik olarak vurgulanmasının, olumlu bir anlatım dili kullanılarak ve kısa zaman dilimlerinde yürütülen kampanyalarla birlikte, bölgesel ve kategorik dinamiklere uygun stratejiler geliştirilmesinin ödül bazlı kitle fonlaması platformlarında başarıyı artıracağına işaret etmektedir.

**Anahtar Kelimeler:** Doğal Dil İşleme, Kitlesel Fonlama, SKH.

ABSTRACT

THE IMPACT OF SUSTAINABLE DEVELOPMENT GOALS ON THE SUCCESS OF ONLINE CROWDFUNDING CAMPAIGNS: AN ANALYSIS THROUGH NATURAL LANGUAGE PROCESSING TECHNIQUES

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Online crowdfunding platforms are emerging as a significant alternative potential finance method, which are playing a critical role in mobilizing resources to achieve the United Nations Sustainable Development Goals (SDGs).

This Study investigates the impact of SDG alignment on campaign success and, in addition, tries to find which individual sustainable development goals are more successful on a reward-based crowdfunding platform. By utilizing Natural Language Processing (NLP) techniques and Ordinary Least Squares (OLS) regression models on Kickstarter platform dataset of 138393 campaign launch between 2020 to 20204 to assess the relationship SDG alignment and campaign success, measured by the natural logarithms of the total pledged amount and the number of backers, while controlling for campaign duration, sentiment, project category, and geographical region.

The findings show that SDG alignment has a statistically significant positive relationship with campaign success. Specifically, SDGs related to environmental such as SDG6 (Clean Water), SDG13 (Climate Action), and SDG14 (Life Below Water) significantly increase funding success. Conversely, campaigns focusing on basic needs such as SDG1 (No Poverty), SDG2 (Zero Hunger), SDG3 (Good Health), and SDG4

(Quality Education) tended to attract less funding and fewer backers on the Kickstarter platform.

Sentiment in descriptions also contributes positively to the campaign's success, and campaign durations have a negative impact. Additionally, there are significant regional and category differences, with campaigns in the Asia-Pacific area and categories like Comics, Design, and Games performing better than those in North America and the Art category.

These results offer practical implications for campaign creators, highlighting the strategic benefit of incorporating specific SDG themes, particularly environmental and justice-oriented ones, coupled with positive messaging and concise campaign timelines, while tailoring approaches to regional and categorical contexts to maximize crowdfunding success on reward-based platforms.

**Keywords:** Crowdfunding, Natural Language Processing, SDGs.

# DEDICATION

I dedicate this work to my family, especially my mother and father, my instructors, and to Ibn Haldun University. With the Love, unwavering support, guidance, and knowledge that I received from all of these; this work was not possible.

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## TABLE OF CONTENTS

**ÖZ** ..... **iv**
**ABSTRACT** ..... **vi**
**DEDICATION** ..... **viii**
**ACKNOWLEDGEMENT** ..... **ix**
**TABLE OF CONTENTS** ..... **x**
**LIST OF TABLES** ..... **xii**
**LIST OF FIGURES** ..... **xiii**
**LIST OF SYMBOLS AND ABBREVIATIONS** ..... **xiv**
**CHAPTER I INTRODUCTION** ..... **1**
1.1. The Role of Crowdfunding in Achieving the SDGs ..... 2
1.2. The Kickstarter Model and Its Relevance to SDGs ..... 3
1.3. Research Gap and Contribution of the Study ..... 4
1.4. Structure of the Paper ..... 5
**CHAPTER II THEORETICAL FRAMEWORK AND EXISTING LITERATURE** ..... **6**
2.1. Concept of Crowdfunding for Sustainable Development ..... 6
2.2. The Value-Attitude-Behavior Model and Its Application ..... 8
2.3. Social Exchange Theory in Crowdfunding ..... 9
2.4. Behavioral Insights in Crowdfunding ..... 9
2.5. Signaling Theory ..... 10
2.6. Kickstarter's Funding Model and Its Impact ..... 11
2.7. Previous Research on SDGs and Crowdfunding ..... 11
**CHAPTER III DATA AND METHODOLOGY** ..... **17**
3.1. Process of Cleaning Data ..... 18
3.2. SDG Alignment in Campaign Descriptions ..... 19
3.3. Variables List ..... 22
3.4. Methodology ..... 26
**CHAPTER IV FINDINGS AND DISCUSSION** ..... **29**
4.1. Descriptive Statistics ..... 29
4.2. Main Model SDG Package Results ..... 35
4.3. Robustness Check of Results Using SDG Package ..... 50

**CHAPTER V CONCLUSION ..... 65**
5.1. Conclusion ..... 65
5.2. Future Recommendations and Suggestions ..... 66
**REFERENCES ..... 69**
**APPENDICES ..... 74**
Appendix A Regressions ..... 74
Appendix B Categories and Regions ..... 78
Appendix C Quantile Regressions ..... 80
Appendix D Statistical Analysis and Hypothesis ..... 86
**CURRICULUM VITAE ..... 88**

## LIST OF TABLES

Table 2.1. Conceptual Framework for SDGs and Crowdfunding Success ..... 13
Table 3.1. Name of the Variables..... 22
Table 3.2. List of Individuals SDGs..... 24
Table 3.3. Countries in Each Region and List of Categories ..... 25
Table 4.1. Table Descriptive Statistics of Variable..... 29
Table 4.2. Descriptive Statistics of SDGs ..... 31
Table 4.3. Distribution of Number of Backers for Different Project Categories by Region (%) ..... 32
Table 4.4. Distribution of Pledged Amount for Different Project Categories by Region (%)34
Table 4.5. Regression Result of Pledged Amount with Overall SDGs..... 35
Table 4.6. Regression Result of Pledged Amount with Individual SDGs ..... 37
Table 4.7. Regression Result of Backers with Overall SDGs..... 39
Table 4.8. Regression Result of Backers Amount with Individual SDGs ..... 41
Table 4.9.Robustness Reg Result of Pledged Amount with Overall SDGs..... 50
Table 4.10. Robustness Reg Result of Pledged Amount with Individual SDGs ..... 52
Table 4.11. Robustness Regression Result of Backers with Overall SDGs..... 54
Table 4.12. Robustness Regression Result of Pledged Amount with Individual SDGs. 56
Table A.1. Sample Data Regression Pledged with Overall SDG ..... 74
Table A.2. Sample Data Regression Backers with SDG ..... 75
Table A.3. Sample Data Regression Pledged with Individual SDG I..... 76
Table A.4. Sample Data Regression Pledged with Individual SDG II ..... 77
Table B.1. Distribution of Pledged Amount for Different Categories and Region.... 78
Table B.2. Distribution of Backers for Different Project Categories and Regions.... 79
Table C.1. Quartile Regression SDG with Pledged ..... 80
Table C.2. Quartile Regression SDG with Backers ..... 83
Table D.1. Results of Hypothesis Testing..... 86

## LIST OF FIGURES

Figure 3.1. Flow Diagram of Dataset ..... 18
Figure 3.2. Description Text Cleaning ..... 20
Figure 4.1. Proportion of SDGs-Related Sentences by Category ..... 43
Figure 4.2. Proportion of SDGs-Related Sentences by Country ..... 45
Figure 4.3. Proportion of SDGs-Related Sentences by Region ..... 47
Figure 4.4. Average Proportion of SDGs by Campaign Category ..... 48
Figure 4.5. Proportion of SDGs by Category ..... 58
Figure 4.6. Proportion of SDGs by Country ..... 60
Figure 4.7. Proportion of SDGs by Region ..... 62
Figure 4.8. Average Proportion of SDGs by Category ..... 63

## LIST OF SYMBOLS AND ABBREVIATIONS

| | |
|---|---|
| BERT | Bidirectional Encoder Representations from Transformers |
| NLP | Natural Language Processing |
| OLS | Ordinary Least Squares |
| SDGs | Sustainable Development Goals |
| SDG 1 | No Poverty |
| SDG 2 | Zero Hunger |
| SDG 3 | Good Health and Well-being |
| SDG 4 | Quality Education |
| SDG 5 | Gender Equality |
| SDG 6 | Clean Water and Sanitation |
| SDG 7 | Affordable and Clean Energy |
| SDG 8 | Decent Work and Economic Growth |
| SDG 9 | Industry, Innovation, and Infrastructure |
| SDG 10 | Reduced Inequality |
| SDG 11 | Sustainable Cities and Communities |
| SDG 12 | Responsible Consumption and Production |
| SDG 13 | Climate Action |
| SDG 14 | Life Below Water |
| SDG 15 | Life on Land |
| SDG 16 | Peace, Justice, and Strong Institutions |
| SDG 17 | Partnerships for the Goals |
| UN | United Nations |
| VAB | Value Attitude Behavior Model |

# CHAPTER I

# INTRODUCTION

Online crowdfunding has become an increasingly important financing instrument for entrepreneurs and creative thinkers, particularly for addressing global problems (Böckel et al., 2021; Dinh et al., 2024). Among the various platforms, Kickstarter is known as a major crowdfunding website, with millions of projects focused on innovation, social issues, and environmental sustainability. The concept of crowdfunding involves the collection of funds from hundreds or thousands of individuals. And when funds are raised from the public through online platforms, it is referred to as online crowdfunding (Jenik et al., 2017). Online crowdfunding has not only made collecting funds easier but also supports projects that reflect societal needs and values to thrive (Allison et al., 2015; Moss et al., 2018).

Crowdfunding has been categorized into four distinct types such as equity, lending, reward, and donation-based crowdfunding. Equity crowdfunding enables investors to trade funds for equity shares, aligning their financial returns with the venture's performance (Chen, 2023; Yasar, 2021).On the other hand, lending-based crowdfunding involves individuals lending money to projects with the promise of repayment in the future (Cappa et al., 2021; Leone et al., 2023). The third type of crowdfunding is reward-based crowdfunding, which involves backers providing funds in exchange for a tangible item or service (Ahmad et al., 2025). Lastly, donation-based crowdfunding, where backers are motivated by compassion and donate to causes without expecting any financial or material rewards (Robiady et al., 2021; Salido-Andres et al., 2021; Zhao & Shneor, 2020).

The relationship between crowdfunding and sustainable development has received more attention in recent years as the global sustainability concerns grow, as seen by the adoption of the United Nations Sustainable Development Goals (SDGs) in 2015. These seventeen goals provide a worldwide framework for addressing most of the

world's pressing issues, including climate change, inequality, and poverty elimination. With an annual estimate of $1.6 billion raised through crowdfunding platforms around the world, it is becoming more apparent that these platforms have great potential in resource mobilization for initiatives related to the SDGs (Fortune Business Insights, 2025).

However, despite the existence of the body of research exploring crowdfunding, there are still significant gaps in understanding how the Kickstarter platform contributes to the achievement of the SDGs. Scholarly attention to this issue is important because Kickstarter is a platform that is not only widely recognized but also hosts a wide range of 6.6 million campaigns and significant portion of it focus on sustainability issues (*Kickstarter Stats — Kickstarter*, 2025). This is why the role of the Kickstarter platform in promoting the SDGs requires a deeper investigation; a proper understanding of the characteristics of successful SDG-related campaigns can provide insights into how crowdfunding platforms can be utilized more effectively to achieve the global sustainability agenda.

The purpose of this paper is to explore the influence of Kickstarter as a platform for financing projects that contribute to the achievement of the SDGs. By explaining the relationship between SDG alignment of campaigns and crowdfunding success on the Kickstarter platform using OLS and NLP techniques, this research paper aims to explain the specific characteristics of campaigns that most appeal to backers and produce a favorable funding amount. By focusing on the role of crowdfunding platforms in promoting sustainable development, this paper aims to explore the previously unexamined impact of the SDGs on campaign success and identify which SDGs are more successful on reward-based online platforms.

### 1.1. The Role of Crowdfunding in Achieving the SDGs

In times when conventional funding sources and methods, such as government assistance or venture capital, may not be sufficient to meet the financial needs of sustainability-related projects, crowdfunding has emerged as a crucial instrument. Through connecting project makers with a large audience of potential backers who provide financial support in exchange for charitable contributions, equity, or rewards,

crowdfunding essentially democratizes access to finance (Johan & Zhang, 2022; Vismara, 2022). Crowdfunding platforms have proven to be effective in facilitating the growth of social enterprises, environmental initiatives, and innovative startups that focus on achieving the SDGs, which is supported by (Maiolini et al., 2024).

All United Nations Member States approved the Sustainable Development Goals, which offer a comprehensive framework for sustainable development. Among other major areas, the SDGs highlight the need for action on climate change, gender equality, sustainable consumption, economic development, and health. As crowdfunding websites like Indiegogo and GoFundMe have been utilized for a range of humanitarian causes, Kickstarter has become a major force in assisting innovative and business endeavors that seek to solve these global issues. Kickstarter is the perfect venue for projects that support the SDGs because of its emphasis on creativity, innovation, and community involvement. These projects might range from environmentally friendly goods and services to educational programs that seek to lessen inequality or advance high-quality education.

Despite Kickstarter potential in financing for innovative and SDGs related projects, the impact of individual SDG alignment on the success of crowdfunding campaigns remain unexplored. Research has shown that campaigns that effectively communicate their objectives, frame their projects in ways that resonate with potential backers, and provide transparent and compelling narratives are more likely to succeed. And also, few studies had explored the effect of SDG alignment on Campaign success on some platforms, Kiva, and Indiegogo (Bade & Reichenbach, 2025; Maiolini et al., 2024). However, no studies have explored the impact of the SDGs as a framing device in crowdfunding campaigns for Kickstarter, particularly concerning how different SDG themes resonate with backers and pledged amount.

### 1.2. The Kickstarter Model and Its Relevance to SDGs

The model of Kickstarter is based on the all-or-nothing funding method, which requires a project to achieve its funding goal within a specified period to receive any of the pledged funds. If the project fails to do so, it will not receive any funds. By encouraging them to actively promote their projects and offer convincing evidence for

backers to support them, this model fosters a unique relationship between those who created the projects and those who supported them. It is especially appropriate for programs that seek to achieve those associated with the SDGs, because the requirement to attain the financial goal within the allotted time limit creates a sense of urgency and accountability.

Kickstarter's unique financing methodology puts more importance on community support, trust building, and open communication than the other crowdfunding platforms like Indiegogo, which have more flexible funding targets. The platform has been especially successful in assisting with programs that aim for a prominent level of public participation and engagement, particularly those that deal with social justice, educational equity, and environmental sustainability. Kickstarter allows entrepreneurs or fund seekers to create a community of supporters who are interested in the project's success as well as the larger objectives it aims to accomplish by interacting with those who support through funds, frequent updates, and interactive communication.

Kickstarter's widespread reach and investors' growing recognition of sustainability as a major concern both contribute to its capacity to promote SDG-related projects. All over the world people become more careful about sustainability issues and supporting through giving funds to initiatives that advance the SDGs. However, how well these initiatives are framed will determine their level of success on Kickstarter and understanding of how much SDG alignment affects these campaigns' capacity to secure funding. How backers are seeing different SDGs in Kickstarter and determining which SDGs are most likely to encourage participation and funding is vital.

### 1.3. Research Gap and Contribution of the Study

Most of the scholarly research on crowdfunding has focused on the few success determinants, for example, project quality, campaign design, and supporter participation, that impact campaign results. However, few studies have such as (Bade & Reichenbach, 2025; Maiolini et al., 2024) examined how important SDG alignment is to crowdfunding projects' success, especially on reward-based platforms like Indiegogo and Kiva.

Researchers have not paid attention to the Kickstarter platform, and no research has explored the role of Kickstarter for the achievement of Individual 17 SDGs. This significant gap in the literature limits our knowledge of potential improvements to crowdfunding platforms that could better support SDG-driven initiatives. Additionally, previous research work have mostly concentrated on equity or donation-based crowdfunding models, giving less attention to reward-based platforms like Kickstarter that incorporate elements of creative innovation and social entrepreneurship (Defazio et al., 2021).

With the aim of investigating how SDG alignment affects crowdfunding campaign success, this study seeks to address these gaps using Kickstarter as a case study. It particularly aims to respond to the following research inquiries:

- Impact of SDGs on the success of online crowdfunding Platform campaigns.
- Which individual sustainable development goal is more likely to be successful in a crowdfunding platform.

By solving these issues, the study aims to add to the expanding corpus of research on sustainability, social entrepreneurship, and crowdfunding along with providing some understanding of the significant role of crowdfunding towards achieving the SDGs.

### 1.4. Structure of the Paper

The paper consists of six chapters. First, the chapter one introduction aims to describe what the paper will do, why it is doing it, and what the impact will be. The second chapter focuses on the theoretical framework and literature review, in which the paper compiles relevant and important theories and research to support the foundation of this research. The third section discusses methodology, where the researcher explains the data, variables, and econometric methods utilized in the research. Chapter four presents the research findings and discusses the consequences of those findings. Finally, the fifth chapter explains the paper's conclusion and future recommendations.

# CHAPTER II

# THEORETICAL FRAMEWORK AND EXISTING LITERATURE

Theoretical knowledge is important to being successful in a crowdfunding campaign, especially when you are working on initiatives or programs related to United Nations sustainable development goals. This chapter will explain the conceptual framework for sustainable development goals, and a model which explores the success of crowdfunding campaigns. Through exploring the relationship between the crowdfunding platform and SDGs, this research aims to show how this new financing method will be a better way to enhance long-term sustainable development goals. This chapter starts with the conceptual explanation of how the crowdfunding platform is used for the achievement of SDGs, how it is unique to the traditional financing methods and the benefits this method will offer. Then explore the relationship of crowdfunding with sustainable development goals and how this method can provide resources to tackle world issues.

This research includes theories such as the Value Attitude Behavior, social exchange, behavior insights and signaling theory to explain backer motivations and behaviors. Lastly, it explains how the Kickstarter platform plays a vital role in achieving the SDGs. By combining these theoretical views, this framework gives a thorough understanding of crowdfunding as a vehicle for sustainable development, laying the groundwork for empirical study and practical implementations in the next sections.

## 2.1. Concept of Crowdfunding for Sustainable Development

Crowdfunding is a comparatively new funding mechanism that has gained dramatic growth over the past few decades. Crowdfunding allows individuals and organizations to raise funds from a wide pool of small contributors, normally on online platforms like Kickstarter, Indiegogo, and GoFundMe (Seigner et al., 2024; Walthoff-Borm et

al., 2018). Crowdfunding works based on the notion that collective force can fund initiatives that would otherwise not be able to raise standard sources of capital, such as venture capital or bank funding. Although the mechanism has traditionally served mostly for startup businesses and arts projects, but now crowdfunding is increasingly becoming an important source for generating funds for initiatives or programs that seek solutions for world issues, especially for issues of sustainability and the SDGs.
The key factor of crowdfunding is how it restructures access to capital, by replacing the role of intermediaries of traditional financial systems and allowing a larger set of persons and organizations to fund their projects. Such development is especially important for sustainable development since it makes it possible to support projects that would not otherwise be able to access traditional financing sources. With their focus on the arts, technology, and creative concepts, crowdfunding platforms such as Indiegogo have emerged as major financing sources for SDG-related projects, from women's empowerment to environmental sustainability. (Bento et al., 2019; Corsini & Frey, 2023; Testa et al., 2024).

Previously, crowdfunding platforms focused on certain fields such as cinema, music, and technology. But now Crowdfunding is rapidly developing across a wide range of disciplines, most notably social causes, sustainability, and global concerns (Carè et al., 2025). Kickstarter is one such innovator that facilitates such initiatives by supporting businesses, artists, and social ventures in obtaining funds for well-aligned social impact projects. Crowdfunding has broadened its reach and diversified into funding tactics that address a wide range of global sustainability challenges, including environmental protection and poverty reduction.

Crowdfunding offers many advantages over other forms of funding within the context of the SDGs. Crowdfunding sites' effectiveness and flexibility allow them to support a wide range of SDG-related projects. To demonstrate, crowdfunding can be used to fund clean energy efforts (SDG 7), climate change action (SDG 13), sustainable cities (SDG 11), and quality education (SDG 4), among other things. The ability to access a global pool of backers allows crowdfunding solutions to reach underserved or underfinanced regions that do not have access to traditional financial institutions. As a result, online crowdfunding can be seen as one of the most important ways for

achieving sustainable development, particularly in areas where traditional funding sources are limited or unavailable (Scataglini & Ventresca, 2019).

This is especially important for projects based on the SDGs, as public and private funding sources are typically insufficient to meet the funding needs of such efforts. For example, projects based on SDG 7 and SDG 13. According to studies, crowdfunding can be especially beneficial for projects aimed at socially or environmentally conscious entrepreneurs who have historically struggled to secure finance through established banking institutions.

### 2.2. The Value-Attitude-Behavior Model and Its Application

The Value-Attitude-Behavior (VAB) model provides a detailed structure for understanding how an individual's basic values influence their attitudes, and consequently their behaviors. In crowdfunding, the VAB model is used to explain why backers pledge support for specific projects, particularly those that support the SDGs (Homer & Kahle, 1988). The VAB model states that individuals' attitudes toward specific projects or causes are influenced by their fundamental values, such as social consciousness, fairness, or human rights. As a result, they are more likely to financially support crowdfunding activities that share their values.

In the case of Online crowdfunding for the SDG, the VAB model predicts that individuals who share deep values of sustainability, equality, or the environment are likely to embrace positive views of projects that support these values. These positive views, in turn, translate into actual behavior, such as donations, sharing of campaigns within their social networks, or contact with project initiators. The model can explain why some of the campaigns promoting specific SDGs, such as climate action or clean energy, receive greater support than others, probably because they align with widely shared and deep values.

The VAB model also emphasizes the importance of excellent communication and framing for crowdfunding campaigns. By being precise about how a project corresponds with various SDGs, project creators can engage prospective supporters' values, encouraging positive project attitudes and increasing their likelihood of

offering financial support. This is especially important for sustainable-focused efforts because the link between the project and its final contribution to global concerns may not be obvious to prospective backers.

### 2.3. Social Exchange Theory in Crowdfunding

Social Exchange Theory reinforces the contention that backers are motivated by relational considerations, including trust and reciprocity. Social exchanges between people are defined by an exchange of resources, both tangible and intangible, where individuals will seek to maximize benefits and minimize costs involved. Backers, through crowdfunding, offer funding for rewards, credibility, or the pleasure of supporting a cause that is of value to them.

Crowdfunding supporters are not only passive investors; they instead interact regularly with creators via comments, reviews, as well as tweets, building a sense of belonging as well as ownership. This is especially suited for purposes of SDG initiatives, as supporters who consider themselves connected with a project are likely to support it continuously, financially as well as by promoting (Kuppuswamy & Bayus, 2017).Trust is essential for such transactions, as backers need to have confidence that project owners will apply their funds as intended and will follow through on their obligations. In the case of SDG projects, such trust assumes that the project will actually make a difference for the ill it purports to address. Transparency, frequent updates, and explicit reporting on project milestones and effects are thus critical to the establishment and maintenance of such trust.

### 2.4. Behavioral Insights in Crowdfunding

Many research works have examined the intrinsic as well as extrinsic reasons that motivate people to donate funds for crowdfunding endeavors. Backers are frequently motivated by individual values, including supporting their favorite causes or acquiring social standing through participation (Gerber & Hui, 2014). These behavioral considerations are especially applicable in examining campaigns based on the SDGs, given that supporters of such initiatives are likely motivated by their sense of social

responsibility, as well as by the need to support international sustainability endeavors (Kim et al., 2021).

The intrinsic reasons for engaging with crowdfunding are most clearly illustrated by campaigns based on social causes or environmental issues. When framed as being able to make a positive difference for society, for example, through reducing carbon emissions or making clean water available, projects will have the best chance of appealing to backers who are intrinsically motivated by values of social good and sustainability. By contrast, campaigns based on economic return or profit might not appeal as well to backers who are motivated by a desire to make positive things happen for the world (Frey & Jegen, 2001)**.** This is a decisive factor in evaluating any role crowdfunding might play toward the achievement of the SDGs, as projects that are presented as being of value to society are best supported.

### 2.5. Signaling Theory

We also used the Signaling Theory (Connelly et al., 2011; Spence, 1973) to explain the effect of SDG alignment on crowdfunding success. In crowdfunding market project creators are more knowledgeable about their projects and potential backers have limited idea of the project. Signaling theory explain us that those who create project can lessen asymmetry by showing credible and observable signals that lower quality project creator cannot be able to. To be effective, a signal needs to be seen as credible by the receiver.

In the crowdfunding platform, project creators use campaign page quality, team background, and SDG alignment as a signal to trust and an important project. When the project creator uses sustainability-related signal aliments, the signal backer for Prosocial Orientation, ethical conduct, long-term vision, and reduced risk. In this study, we examine the number of SDG-related word count, especially SDG 13 and SDG 6, as an indicator of a highly committed project.

Control factors like text sentiment, campaign duration, and region can also be used to measure professionalism, excitement, or market comprehension. The study's empirical models test the hypothesis that positive and credible SDG signals reduce information

asymmetry, resulting in more backers and higher commitment levels. The aggregate SDGS variable analyzes the overall intensity of the SDG signal, whilst the individual SDG variables allow for analysis of which SDGs supporters consider to be more persuasive signals.

### 2.6. Kickstarter's Funding Model and Its Impact

The Kickstarter platform's unique all-or-nothing fundraising mechanism distinguishes it from other platforms that offer more flexible funding options. The tough fundraising method highlights the importance of transparency, trust, and community support. By establishing a financial target, project developers simply define a minimum threshold, the minimum number of resources required to complete the project. By doing so, the creators have a strong motivation to actively engage with potential backers, make the support case, and build a community around the project. This technique adds an extra layer of responsibility to SDG-related projects, which is particularly desirable.

It ensures campaigns only proceed if they have raised sufficient funding to be viable, reducing the risk of under-funded campaigns that cannot deliver on their promises. This responsibility is crucial to upholding trust in crowdfunding as a method of funding sustainable development because it ensures backers' money helps bring about the SDGs it promises to support.

The all or nothing technique fosters a sense of collaborative action among supporters. When people understand that a project requires some level of finance to be completed, they are more inclined to contribute and disseminate the campaign to their networks, broadening its reach. Collective mobilization is especially important for SDG-related projects, which typically require significant funding to be truly effective.

### 2.7. Previous Research on SDGs and Crowdfunding

Because crowdfunding is becoming important financing tool for SDGs many researchers have explored the relationship between crowdfunding and sustainability, particularly in how crowdfunding can be leveraged to achieve environmental and social objectives.

Among which (Bento et al., 2019; Mačí & Krtička, 2023) have tried to explain the relation between the success of crowdfunding campaigns and UN sustainable development goals, and found that campaigns in developing countries and led by female founders have a higher chance of being successful. Which is further proved by studies of (Bade & Reichenbach, 2025; Gazzola et al., 2022; Maiolini et al., 2024) showed that the lending-based platform Kiva, and non-fixed reward base platform Indiegogo showed that campaigns that have Certified B corporation, SDG alignment, especially clean energy (SDG7), climate action (SDG13), and sustainable communities (SDG11), are playing a positive role in attracting pledged amount and backers then other.

On the Other hand, (Kim et al., 2021; Koch & Siering, 2019) have tried to explain the psychological and behavioral factors influencing crowdfunding decisions and found that agreeableness, conscientiousness affect and evoke strong emotional responses in the campaign has a positive significant impact on influencing backer engagement and level of funding.

In addition to individual characteristics, external factors such as the crowdfunding platform's technology and the level of transparency in the fundraising process are also crucial for campaign success. Studies of (Chalmeta et al., 2025; Park et al., 2024) show how blockchain technology can enhance transparency and trust in crowdfunding platforms and a Model to optimize the campaign. These studies highlight the potential of blockchain to provide a secure, decentralized platform for SDG-oriented campaigns, offering investors greater confidence in their contributions and provide a machine learning-based model that integrates Environmental, Social, and Governance (ESG) criteria to predict crowdfunding success, providing a valuable tool for campaign creators to optimize their strategies and attract backers.

The effectiveness of reward-based crowdfunding has also been a topic of significant research. Corsini & Frey, 2023; Hörisch & Tenner, (2020) did a study on it and found that the reward-based crowdfunding is particularly effective for environmentally sustainable products and emphasizing the importance of clearly communicating a project’s environmental impact will increase the backers.

Several studies have also identified the key success factors in crowdfunding campaigns. Such as research done by (Borrero-Domínguez et al., 2020; Kim & Hall, 2021) examines the role of personal values and attitudes in driving participation in sustainability-oriented crowdfunding campaigns, showing that campaigns with clear, value-driven messaging, the project's objectives, the credibility of the creators, social media for campaign promotion, project quality, and the experience of the creators tend to attract more backers.

Together, these studies highlight the growing recognition of crowdfunding as a powerful tool for financing SDG-related initiatives. The research underscores the importance of aligning campaigns with specific SDGs, using appropriate technologies such as blockchain for transparency, and understanding the behavioral factors that drive backer engagement. While considerable progress has been made in understanding the dynamics of crowdfunding for sustainable development, there remains a need for further research into the long-term impact of these campaigns on achieving SDGs and optimizing crowdfunding strategies for greater success

**Table 2.1. Conceptual Framework for SDGs and Crowdfunding Success**

| Conceptual Framework | Main Contracts | Impact on Crowdfunding Success | Sample Article(s) |
|---|---|---|---|
| VAB Model, Social Exchange Theory | Motivation and Participation | Positive correlation between backer motivation and SDG-aligned projects, especially those focused on environmental sustainability. | -(Bade & Reichenbach, 2025; Bento et al., 2019; Zhao & Shneor, 2020) |
| Social Exchange Theory, VAB Model, Signaling Theory | Sustainability Orientation | High success for SDG-focused campaigns when framed properly, especially those focusing on climate action, clean water, and responsible consumption. | - (Borrero-Domínguez et al., 2020; Messeni Petruzzelli et al., 2019) |

**Table 2.1. (cont.)**

| | | | |
|---|---|---|---|
| Signaling Theory, Investment Decision Making Theory, Social Exchange Theory | Success Factors and Predictors | Projects with clear signals and lower perceived risks are more likely to succeed.<br>- Environmental and innovative SDG projects benefit from strong quality signaling. | - (Gazzola et al., 2022; Koch & Siering, 2019; Messeni Petruzzelli et al., 2019; Vismara, 2022) |
| VAB Model, Signaling Theory, Crowdfunding Platform Theory | Platform-Specific Dynamics | Success on crowdfunding platforms depends on platform-specific rules. Campaigns on platforms with flexible funding and strong SDG framing perform better in both raising funds and attracting backers. | - (Fuster Morell et al., 2020; Maiolini et al., 2024; Messeni Petruzzelli et al., 2019) |
| Sustainability Framing Theory, VAB Model | SDG-Specific Framing | Successful SDG-aligned campaigns are those that integrate SDGs into their message, especially around climate change and energy solutions. | - (Bade & Reichenbach, 2025; Bento et al., 2019; Testa et al., 2022) |
| Social Exchange Theory, Behavioral Economics Theory | Crowdfunding and Social Impact | Social and economic impact campaigns are often aligned with SDGs like gender equality and reduced inequalities.<br>- Positive effects on project support due to social impact. | - (Borrero-Domínguez et al., 2020; Hörisch & Tenner, 2020, 2020; Testa et al., 2022, 2024) |

Reference: Author Own Work

This theoretical framework introduced within this section offers an inclusive understanding of crowdfunding as a tool for financing projects under the Sustainable Development Goals. By combining ideas from different theoretical schools of thought, such as the Value-Attitude-Behavior model and Social Exchange Theory, we have established a conceptual basis for examining the role these crowdfunding platforms, specifically Kickstarter, play in sustainable development. The relationship between crowdfunding and the SDGs has been complex and widespread. Previous Research shows that some SDGs, for instance, addressing climate change, renewable energy, sustainable communities, and responsible consumption, are more popular in online crowdfunding platforms. This difference in success rates across multiple SDGs emphasizes the importance of excellent strategic framing and communication in crowdfunding campaigns, as well as a deeper knowledge of backer motivations and behaviors.

In the literature, important theories such as the Social Exchange Theory and the VAB model have provided essential insights on questions such as why people support crowdfunding projects, particularly those that link with the SDGs. By clearly showing that personal beliefs, attitudes, trust, and altruism drive backer behavior, campaigns that effectively engage these psychological aspects have a better chance of success. Understanding such causes is critical for project developers when creating campaigns to appeal to potential donors and rally support for sustainable initiatives. Kickstarter, with its all-or-nothing funding style and global network of backers, has emerged as a critical forum for supporting SDG-related projects. its emphasis on community engagement, transparency, and accountability aligns with the objectives of sustainability efforts, which require not only financial support but also a dedicated group of advocates. Kickstarter has helped to promote social innovation and sustainable development by offering a platform for these initiatives.

Despite the existence of much research available in the literature that explains crowdfunding for achieving sustainable development goals, there is still have important gap to be filled to understand this relationship. Many researchers have analyzed the Kiva platform and, Indiegogo platform, but there is no research on the Kickstarter platform for sustainable development goals. By addressing these research gaps, we aim to enhance the effectiveness of crowdfunding as a mechanism for

financing the SDGs and contribute to the broader goal of creating a more sustainable and equitable world. By going through the theory and the existing literature on crowdfunding and the Sustainable Development Goals, we find out that motivation, sentiment, SDG framing, and campaign duration in determinants of the success of crowdfunding projects. Previous research has shown that emotional engagement and SDG framing in campaign descriptions important positive impact on backers and pledged amount. Furthermore, we get to know that success is also varying from the campaigns to campaign and across the regions that why we used to include as control variables to account for differences in crowdfunding success across different sectors and regions. Moreover, the model includes the campaign duration, based on literature studies that show that shorter campaigns frequently work better by instilling a feeling of urgency. Therefore, the hypothesis that SDG alignment, sentiment, and campaign characteristics such as category, region, and duration significantly influence crowdfunding outcomes is grounded in the theoretical and empirical findings from the literature.

$H_1$: The overall alignment of crowdfunding campaigns with SDGs has a positive impact on the success of crowdfunding campaigns.

$H_2$: The alignment of crowdfunding campaigns with a particular $SDG_i$ (where *i* is standing for the sustainable development goals and take values from 1 to 17) has a positive impact on the success of crowdfunding campaigns.

$H_3$: The Positive sentiment expressed in crowdfunding campaign descriptions has a positive impact on the success of crowdfunding campaigns.

$H_4$: The Negative sentiment expressed in crowdfunding campaign descriptions has a positive impact on the success of crowdfunding campaigns.

$H_5$: The duration of crowdfunding campaigns has a negative impact on the success of crowdfunding campaigns.

$H_6$: Campaign success, as measured by both pledged amounts and backer numbers, significantly varies across different regions.

$H_7$: Campaign success, as measured by both pledged amounts and backer numbers, significantly varies across different campaign categories.

# CHAPTER III

# DATA AND METHODOLOGY

This section explains the methods used in this study, including data collection and preparation, identifying SDG alignment in 138394 crowdfunding campaigns, and the analytical approaches used to assess the relationship between SDG framing and crowdfunding success. The major goal of this study is to evaluate the impact of aligning crowdfunding campaigns with the United Nations sustainable development goals on their performance, as assessed by the amount pledged and the number of supporters on the Kickstarter platform. The data utilized in this study were obtained from Kickstarter campaigns launched between 2020 and 2024. It was processed and analyzed using a combination of quantitative regression models and text mining techniques.

### 3.1. Process of Cleaning Data

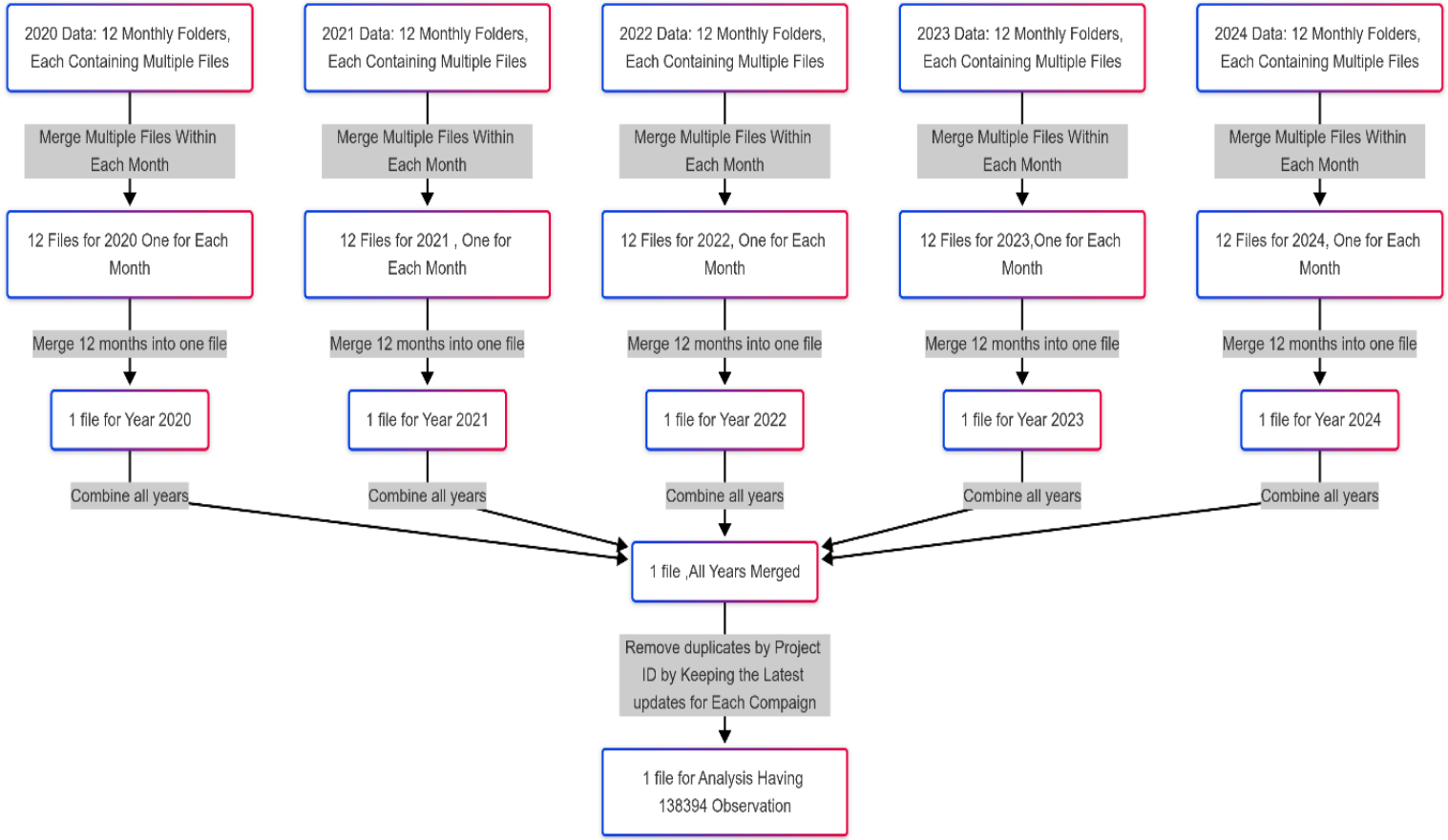



**Figure 3.1. Flow Diagram of Dataset**

Reference: Author's Own Work

The data for this study is Kickstarter campaign data, which is taken from the (web of robotics, 2025) . The dataset includes 138,393 campaigns launched over the five years from 2020 to 2024. The web of robotic is a valid and authentic dataset source, which is open to access and has been used in many academic papers such as (Bade & Reichenbach, 2025) used the web of Indiegogo to perform their research.

The data is publicly available on the website of (web of robotics, 2025) and includes a wide range of campaigns across various sectors, including art, technology, and many more. The dataset is divided into monthly folders, each containing campaign data in multiple files for a particular month. To prepare the final data for analysis, we followed the steps outlined in Figure 3.1 above and described below. In the first step, the separate campaign files for each monthly folder were combined. Within each year folder, there were numerous folders, and each folder had multiple files. First, we merge all the various files within the monthly folder to create one file for each month using the R software. This way, we had 12 files for each year, totaling 60 files for the 5 years. Moving on to the next step, here all the five-year files are combined into one. After creating a single file for the entire dataset, we search for duplicates and remove them by keeping only the latest information for each campaign, using the unique campaign ID as a basis. Additionally, we removed the columns that are not important for our research hypothesis, such as the URL of campaigns and a few others. After all these data cleaning and preparation stages, we were left with the final dataset, which included 138,393 campaigns for five years, with essential variables such as the number of backers, the amount pledged, campaign description, country, and category.

### 3.2. SDG Alignment in Campaign Descriptions

After all these data cleaning and preparation stages, we were left with the final dataset, which included 138,393 campaigns for five years, with essential variables such as the number of backers, the amount pledged, and the campaign description. The alignment of Kickstarter campaign descriptions with the 17 United Nations sustainable development goals was the primary focus of this study and the independent variable used in this study. As the dataset don’t had variable which directly measure the SDGs alignment the campaign have or not, so in this research used the campaign description SDGs related words as an indirect measure of SDG alignment.  To evaluate this

alignment, the campaigns' textual descriptions are analyzed for any mentions of the SDGs related words, which are presented as the fundamental components of sustainable development. Before we run the textual analysis on the Kickstarter campaign description obtained from (web of robotics, 2025) the critical steps have been done on the campaign description, which are important for textual analysis, explained by (Upadhye, 2020). Below are the steps shown in Figure 3.2, which this research has performed using the Python programming language on our data before running the Textual analysis.

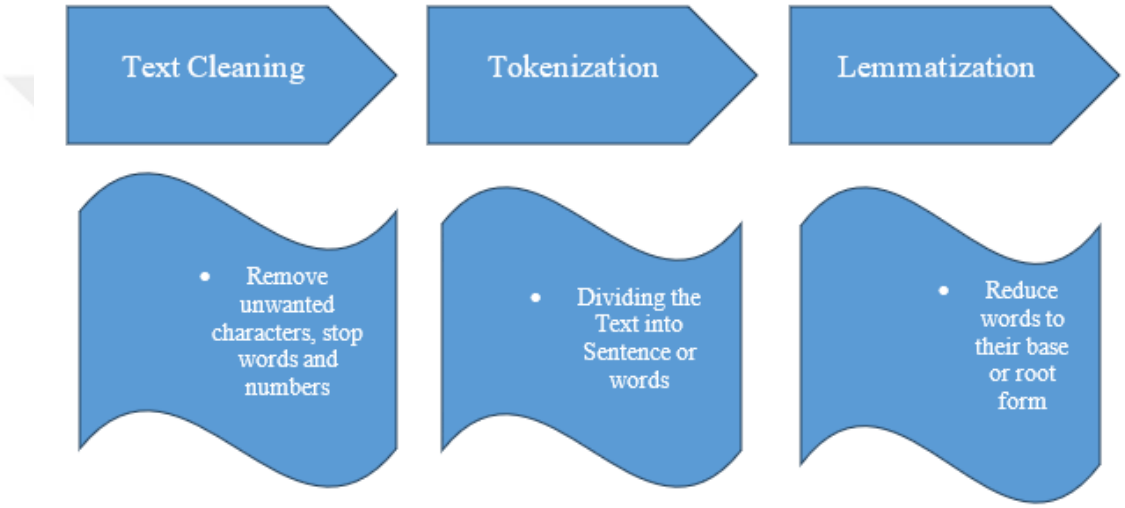



**Figure 3.2. Description Text Cleaning**

Reference: Author's Own Work

As shown in the figure 3.2 first step of text cleaning has been completed, which aims to clean and prepare the raw text for further natural language processing (NLP) analysis. Non-relevant numbers, stop words, unnecessary characters, and spelling mistakes were removed to prevent misleading results, and the data was normalized to ensure uniformity across the dataset. Then, performed tokenization, where the text is divided into chunks, such as sentences or words, to understand the pattern and make the data better prepared for lemmatization. After that, the last task has been performed, where words are reduced to their most basic form through lemmatization or stemming. While stemming reduces words to their most basic form, losing context, lemmatization considers the word's context and ensures that it is mapped to its correct root form. After applying these strategies, the campaign description data is a neat and organized dataset

that is prepared for further analysis. This ensures that unneeded data is removed, and the language is standardized for more precise and significant outcomes.

Each campaign summary descriptions were then analyzed using SDG detector text-mining algorithms to measure SDG alignment (Li et al., 2023) that is trained on the 6 SDG databases with expert training assessment and 75% result accuracy. To check the robustness of the results, this study used the Text2SDG package of R (Meier et al., 2022) as an alternative model trained with several SDG-related terms (Wulff et al., 2024) . A manual assessment of selected campaigns reveals that although there are a few individual statements that may be misinterpreted, a high number of sentences aligning with the SDGs indicates a campaign's genuine commitment, which is why we use the number of SDG-related sentences as the independent variable in our study. This way, each campaign description was analyzed to determine and count the number of sentences where the SDGs were mentioned, and we specifically measured two variables.

First, the Total SDG sentences. The total number of sentences that aligned with any of the 17 SDGs, which is used to assess the campaign's overall sustainability focus. Then we found out the Individual SDGs in the Sentences mean the number of sentences that corresponded to each of the 17 SDGs form SDG1 to SDG17 allowing us to investigate how individual SDGs affect crowdfunding success. This approach allowed us to measure both the campaigns overall sustainable framework and the extent to which specific SDGs were emphasized.

### 3.3. Variables List

**Table 3.1. Name of the Variables**

| Variable | Variable labels | Type | Description | Unit | Source |
|---|---|---|---|---|---|
| Campaign Duration | CD | Control | Duration of the campaign in days | Days | Kickstarter campaign data for Web of Robotics (Li et al., 2023) |
| Positive Sentiment | POS | Control | Presence of positive sentiment in the campaign description | Binary (0 = No, 1 = Yes) | Sentiment analysis Hugging Face BERT on Kickstarter campaign data (Wolf et al., 2020) |
| Negative Sentiment | NEG | Control | Presence of negative sentiment campaign description | Binary (0 = No, 1 = Yes) | Sentiment analysis (Hugging Face BERT) on Kickstarter campaign data, Web of Robotics (Wolf et al., 2020) |
| Category | CAT | Control | Category of the campaign (e.g., Art, Technology) | Categorical (0–14) | Kickstarter campaign data (Web of Robotics) |
| Region | REG | Control | Geographical region of the campaign | Categorical (1–6) | Kickstarter campaign data (Web of Robotics) |
| SDGs | SDGs | Independent | Total SDG-related sentences | Count | Text mining (SDGdetector package in R) on Kickstarter campaign data (Li et al., 2023) |
| SDG1 to SDG17 | SDG1 to SG17 | Independent | Number of sentences corresponding to each SDG (1–17) | Count (per SDG) | Text mining (SDGdetector package in R) on Kickstarter campaign data (Meier et al., 2022) |
| ln_backers | ln_backers | Dependent | Natural log of the number of backers | Logarithmic scale | Kickstarter campaign data (Web of Robotics) |
| ln_pledged | ln_pledged | Dependent | Natural log of the total pledged amount | Logarithmic scale | Kickstarter campaign data (Web of Robotics) |

Reference: Author's Own Work

Table 3.1 shows the variables used in this study. SDG-related variables, both for overall and Individual, are found through the Natural language processing techniques such as SDG detector and Text2SDG on the textual description of which Kickstarter

platform is used in the study as an independent variable to check their effect on the campaign success. The natural log of pledged amount and backer information of each campaign of the selected Kickstarter dataset is used as a measure for campaign success. They also have some control variables that take into consideration other aspects that influence crowdfunding success and were available in the Kickstarter platform dataset. The control variables included are given below.

Campaign duration means the number of days a campaign is live, as longer campaigns may attract more backers and funds. Positives and Negative Sentiment Variables, which are dummy variables having values from 0 to 1. If negative variables have a value of 1, the campaign description has a decision to have negative sentences, and, if not, then 0, and vice versa for positive variables. These are determined by the variables that determine the emotional tone of the campaign description. In addition, a categorical variable indicating the project kind is Arts, technology, and others, as various categories may attract different backers. Apart from that, the categorical variable represents the geographical region where the campaign is launched, for instance, North America or Asia pacific.

This research used region as a categorical variable in our regression model to explore the potential impact of regional differences on the dependent variable. The regions were categorized based on cultural and geographical factors, with each region having several countries. The table 3.3 shown below presents the which countries are there in which region and what are the categories in our study which used as a control variable.

**Table 3.2. List of Individuals SDGs**

| SDG Code | SDG Name | Specific Goal Contents |
|---|---|---|
| **SDG 1** | No Poverty | End poverty in all its forms everywhere. |
| **SDG 2** | Zero Hunger | End hunger, achieve food security and improved nutrition, and promote sustainable agriculture. |
| **SDG 3** | Good Health and Well-being | Ensure healthy lives and promote well-being for all at all ages. |
| **SDG 4** | Quality Education | Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. |
| **SDG 5** | Gender Equality | Achieve gender equality and empower all women and girls. |
| **SDG 6** | Clean Water and Sanitation | Ensure availability and sustainable management of water and sanitation for all. |
| **SDG 7** | Affordable and Clean Energy | Ensure access to affordable, reliable, sustainable, and modern energy for all. |
| **SDG 8** | Decent Work and Economic Growth | Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. |
| **SDG 9** | Industry, Innovation, and Infrastructure | Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. |
| **SDG 10** | Reduced Inequalities | Reduce inequality within and among countries. |
| **SDG 11** | Sustainable Cities and Communities | Make cities and human settlements inclusive, safe, resilient, and sustainable. |
| **SDG 12** | Responsible Consumption and Production | Ensure sustainable consumption and production patterns. |
| **SDG 13** | Climate Action | Take urgent action to combat climate change and its impacts. |
| **SDG 14** | Life Below Water | Conserve and sustainably use the oceans, seas, and marine resources for sustainable development. |
| **SDG 15** | Life on Land | Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. |
| **SDG 16** | Peace, Justice, and Strong Institutions | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels. |
| **SDG 17** | Partnerships for the Goals | Strengthen the means of implementation and revitalize the global partnership for sustainable development. |

Reference: (Agenda for Sustainable Development, 2020)

Apart from that the table 3.2 show us the individual SDGs, their codes and their specific goals as determine by United nations, to better understand the individual SDGs and the work they are doing. Table 3.2 above taken (Agenda for Sustainable Development, 2020) show us an in-depth overview of the 17 Sustainable Development Goals established by the United Nations in 2015, which are defined as the foundation for the global sustainable development agenda. Each SDG is linked to a specific goal aiming at solving some of the world's pressing issues, such as poverty reduction, climate action, gender equality and others. The table lists the SDG codes,

names, and detailed objective contents, which are critical for understanding the scope and purpose of each SDG. This table is given in the research paper to clearly show that the Individual SDGs categorization has been done reference for the study.

**Table 3.3. Countries in Each Region and List of Categories**

| **Region** | **Countries** |
|---|---|
| North America | Canada, United States, Mexico |
| Western Europe | Austria, Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Switzerland, United Kingdom |
| Nordic Countries | Norway, Sweden |
| Southern Europe | Greece, Spain |
| Asia-Pacific | Australia, Hong Kong, Japan, New Zealand, Singapore |
| Eastern Europe | Poland, Slovenia |
| Categories<br><br>Base Art, Comic, Crafts, Dance, Design, Fashion, Film & Videos, Food, Games, Journalism, Music, Photography, Publishing, Technology, Theater | |

Reference: Author's Own Work

The categorization allows for a more in-depth understanding of which SDGs are most featured in the campaigns reviewed, as well as insights into how different SDGs resonate with potential backers.

To understand the difference in backer and pledged amount in each region and region we have used the region and the category of the campaign as a control varibles in our study. After adjusting for other variables in our models, each region and category had been considered as a distinct varibles to evaluate the potential impact of regional and categorical factors on the dependent variable.

Table 3.3 above clearly demonstrate us what are the six regions in of study, each country within each region and how many categories are this study. Without supposing

a linear link between location and, we enable the model to account for regional heterogeneity by employing a categorical variable approach.

For instance, the North America category includes the countries Canada, the United States, and Mexico. On the one hand, Western Europe encompasses a diverse group of countries such as Austria, France, Germany, and the United Kingdom. These regional variables reflect distinct cultural, economic, and political contexts, which may cause variations in the dependent variable. Apart from that fifteen categories have been used in this study, such as Arts, publishing, Technology, and others as shown in the table 3.3. The inclusion of these regional and categorical dummy variables allows us to control for these regional and categorical effects and assess their significance in the regression model.

### 3.4. Methodology

The data in this study were analyzed using Ordinary Least Squares regression, which was chosen for this study because of its ability to estimate the relationship between the continuous dependent variables and various independent variables, which is also used by (Bade & Reichenbach, 2025) in their recent studies to check the relationship between SDGs and Crowdfunding success for the Indiegogo platform. The regression model dependent variables are the natural logarithms of two success indicators: the amount pledged, the total money raised by the campaign and the number of backers and how many people who supported that campaign. Both variables are logarithmically modified to account for skewness in their distributions and allow for a more meaningful interpretation of the coefficients. Below is the four-research regression model used in this study.

Model one, represented by equation number one below, investigates the relationship between the overall SDG variable and the natural log of the pledged amount along with control variables, including campaign duration, sentiment in campaign descriptions, and campaign category and region. This approach contributes to determining the overall impact of SDG alignment on the quantity of money raised.

$$LN\ Pledged = \beta_0 + \beta_1 SDGs + \beta_2 CD\ + \beta_3 POS + \beta_4 NEG + \sum_{k=1}^{15} \beta_k CAT_k + \sum_{r=1}^{6} \beta_r REG_r + \epsilon_i \quad \textbf{(1)}$$

In the regression equation number one, the ln_pledged represents a natural log-dependent variable, the total amount raised by the campaign. $\beta_0$ represents the intercept, which means that, if all the independent variables are equal to zero, what is the value of the ln_pledged. $\beta_1$ represent the coefficient of the SDG aliment variables which indicates that if one unit change in the SDG variable how much change in the pledge amount. CD represents the campaign duration in days, and $\beta_2$ represents the coefficient of the campaign duration. Apart from that, POS and NEG in the equation show the negative and positive sentiments in the campaign description, where $\beta_3$, and $\beta_4$ represent the coefficient of the positive and negative sentiment in the campaign that will show us if one unit change in the SDG aliment how many units pledged amount will change. In addition, CAT represents the category, and $\beta_k$ represents the coefficient of the category, where *k* has a value for each category from 1 to 15, representing each category. Which will measure how each specific category influences the much the pledged amount as compared to the base category. Furthermore, REG represent the region, where $\beta_r$ is the coefficient of the region, where *r* having value for 1 to 6 each for specific region which help us to capture the regional difference. Lastly, ϵi represents the error term which represents the unobserved or random factor which affects the dependent varibles but is not included in the model.

Model two investigates the relationship between the overall SDG sentences and the natural log of the number of backers. In the same way as model one, it accounts for campaign duration, sentiments, and category as control variables. This approach measures how SDG alignment affects the number of people who support a campaign. Model two is represented by equation number two, which is given below.

$$LN\ Backer = \beta_0 + \beta_1 SDGs + \beta_2 CD\ + \beta_3 POS + \beta_4 NEG + \sum_{k=1}^{14} \beta_k CAT_k + \sum_{r=1}^{6} \beta_r REG_r + \epsilon i \quad \textbf{(2)}$$

Model three Instead of the total number of SDG related word sentences variables, we use the number of sentences associated with each of the 17 SDGs (SDGs 1–17) in the

campaign and try to capture the effect of each individual SDGs on the campaign success in terms of amount pledged. The models assess how focusing on each individual SDG affects crowdfunding success.

$$LN\ Pledged = \beta_0 + \sum_{i=1}^{17} \beta_i SDG_i + +\beta_{18} CD\ + \beta_{19} POS + \beta_{19} NEG + \sum_{k=1}^{14} \beta_k CAT_k + \sum_{r=1}^{6} \beta_r REG_r + \epsilon_i \quad \textbf{(3)}$$

In equation number three, all the variables are the same as before, but here, instead of overall SDGs related words variable, we used the $SDG_{i,}$ where *i* has a value from 1 to 17, each representing the effect of a specific SDG on the pledged amount. These models provide a more sophisticated understanding of how certain SDGs influence campaign outcomes and try to answer our second hypothesis, which individual SDGs are likely to be more successful on the Kickstarter platform. In the third equation, $\beta_0$ represents the intercept, $\beta_i$ represent the intercept of the individual SDGs which has values from 1 to 17, and ϵi is the error term.

Model Four, the same way as model third, we have used we use the number of sentences associated with each of the 17 SDGs (SDGs 1–17) in the campaign, but in fourth model instead of pledged amount we did with amount backers. This model assesses how focusing on each SDG affects crowdfunding success.

$$LN\ Backer = \beta_0 + \sum_{i=1}^{17} \beta_i SDG_i + \beta_{18} CD\ + \beta_{19} POS + \beta_{19} NEG + \sum_{k=1}^{14} \beta_k CAT_k + \sum_{r=1}^{6} \beta_r REG_r + \epsilon i \quad \textbf{(4)}$$

The models are calculated using OLS regression, which finds the coefficient estimates that quantify the relationship between each predictor variable, SDGs, individual SDGs, and control variables, and the crowdfunding success indicators such as the pledged and backers. Detailed descriptions of the variables can be seen in the variables Table 3.2 in the methodology chapter.

# CHAPTER IV

# FINDINGS AND DISCUSSION

This chapter discusses the findings of an empirical study performed to evaluate the impact of sustainable development goals alignment on the success of crowdfunding campaigns on Kickstarter. This study focuses on the association between SDG-related framing represented by the number of SDGs related words in campaign descriptions and campaign success measured by the amount pledged and the number of backers.

The study uses a dataset of 138,393 Kickstarter campaigns launched between 2020 and 2024 to provide an understanding of how connection with the United Nations' sustainable development goals affects crowdfunding campaign success. The results of the four Regression Models along with the Robustness Check are discussed in this chapter.

The regression analysis results will be presented in the following sections, together with the statistical findings and their interpretation for both overall SDG alignment and individual SDGs. Then, this study has compared the findings to previous literature and theoretical expectations. The chapter concludes by discussing the findings' practical and regulatory consequences, particularly for campaign creators and stakeholders in the crowdfunding ecosystem.

## 4.1. Descriptive Statistics

In Table 4.1 the descriptive statistics of the dataset have been presented. The table has three sections, each showing the best statistics possible according to the varibles type. In the first section of the table the continuous variables statistics have been shown then moving the binary, and categorical variables across a dataset of 138,393 Kickstarter campaigns launched between 2020 and 2024 have been demonstrated.

**Table 4.1. Table Descriptive Statistics of Variable**

| Variable | Obs | Mean | Std. Dev. | Min | Max | Frequency | Percentage |
|---|---|---|---|---|---|---|---|
| **Continuous Varibles** | | | | | | | |
| CD | 138393 | 33.27 | 13.298 | 1 | 121 | | |
| ln backers | 138393 | 3.615 | 1.845 | 0 | 12.13 | | |
| ln pledged | 138393 | 7.233 | 2.881 | 0 | 17.54 | | |
| **Binary Varibles** | **138393** | | | **0** | **1** | | |
| POS | | | | | | 53,155 | 38.41 |
| NEG | | | | | | 16,253 | 11.74 |
| **Categorical Variables** | | | | | | | |
| **REG** | **138393** | | | **1** | **6** | | |
| North America | | | | | | 88,064 | 63.63 |
| Eastern Europe | | | | | | 32,865 | 23.75 |
| Western Europe | | | | | | 1,108 | 0.80 |
| Nordic Countries | | | | | | 1,438 | 1.04 |
| Asia-Pacific | | | | | | 11,087 | 8.01 |
| Southern Europe | | | | | | 3,831 | 2.77 |
| **CAT** | **138393** | | | **1** | **15** | | |
| Art | | | | | | 14853 | 10.73 |
| Comic | | | | | | 12931 | 9.34 |
| Crafts | | | | | | 3071 | 2.22 |
| Dance | | | | | | 393 | 0.28 |
| Design | | | | | | 15167 | 10.96 |
| Fashion | | | | | | 7741 | 5.59 |
| Film & Videos | | | | | | 12386 | 8.95 |
| Food | | | | | | 6001 | 4.34 |
| Games | | | | | | 24984 | 18.05 |
| Journalism | | | | | | 865 | 0.63 |
| Music | | | | | | 8065 | 5.83 |
| Photography | | | | | | 2032 | 1.47 |
| Publishing | | | | | | 15834 | 11.44 |
| Technology | | | | | | 12777 | 9.23 |
| Theater | | | | | | 1293 | 0.93 |

Reference: Author's Own Work

The continuous variables in this study include campaign duration (CD), the natural logarithm of backers (ln backers), and the natural logarithm of pledged amounts (ln pledged). Table 4.1 show us that the average campaign duration is 33.3 days, and standard deviation of 13.3, indicating a wide variation in the campaign duration. While on the other hand, the average number of backers is 3.6 and a range from 0 to 12.13, which showing us that the number of backers varies considerably across campaigns. Similarly, the average pledged amount (ln pledged) is 7.23, with a maximum of 17.55, reflecting the significant variation in how much money is pledged to campaigns.
The sentiments positive and negative binary variables show us that approximately 38.41% have positive sentiment (POS) and 11.74% of the campaign description have negative sentiment (NEG).

Facts from the categorical variables indicates us that North America dominates with 63.63% of campaigns, and Eastern Europe with 23.75% has the second highest campaign. While other regions, such as Western Europe and Nordic Countries show much lower frequencies. Most of the campaign belong to the Games, design, and the Art. While Other categories, such Theater and Music has the lower representation.

**Table 4.2. Descriptive Statistics of SDGs**

| Label | Obs | Min | Max | Frequency | Percentage |
|---|---|---|---|---|---|
| SDGS | 138393 | 0 | 7 | 7157 | 5.17 |
| SDG1 | 138393 | 0 | 3 | 29 | 0.02 |
| SDG2 | 138393 | 0 | 2 | 284 | 0.21 |
| SDG3 | 138393 | 0 | 3 | 784 | 0.57 |
| SDG4 | 138393 | 0 | 2 | 397 | 0.29 |
| SDG5 | 138393 | 0 | 4 | 501 | 0.36 |
| SDG6 | 138393 | 0 | 2 | 108 | 0.08 |
| SDG7 | 138393 | 0 | 3 | 238 | 0.17 |
| SDG8 | 138393 | 0 | 2 | 249 | 0.18 |
| SDG9 | 138393 | 0 | 2 | 186 | 0.13 |
| SDG10 | 138393 | 0 | 4 | 119 | 0.09 |
| SDG11 | 138393 | 0 | 2 | 413 | 0.30 |
| SDG12 | 138393 | 0 | 3 | 549 | 0.40 |
| SDG13 | 138393 | 0 | 4 | 1,294 | 0.94 |

**Table 4.2. (cont.)**

| | | | | | |
|---|---|---|---|---|---|
| SDG14 | 138393 | 0 | 3 | 155 | 0.11 |
| SDG15 | 138393 | 0 | 4 | 1,017 | 0.73 |
| SDG16 | 138393 | 0 | 2 | 1,562 | 1.13 |
| SDG17 | 138393 | 0 | 1 | 30 | 0.02 |

Reference: Author's Own Work

Table 4.2 provides a details information about how many SDGs related word had been found in the campaign description of the Kickstarter campaign four-year dataset. The table reveals that, 7157 (5.17%) campaign out of 138393 campaign integrate SDGs related words into their descriptions, mean that from overall dataset 5.17 percent campaign have framed campaign with SDGs.

The table 4.2 clearly show the level of engagement varies significantly between different SDGs. SDG13, SDG6, and SDG16 are the most frequently mentioned SDGS, indicating to us that there is a growing focus on sustainability, justice, and climate issues within the crowdfunding community. On the other hand, there is less campaign focus to the poverty alleviation and other social SDGs such as SDG1, SDG2, SDG3 and SDG17.

**Table 4.3. Distribution of Number of Backers for Different Project Categories by Region (%)**

| | **North America** | **Western Europe** | **Nordic Countries** | **Southern Europe** | **Asia-Pacific** | **Eastern Europe** | **Total** |
|---|---|---|---|---|---|---|---|
| **Art** | 63.66 | 25.17 | 1.71 | 3.16 | 6.02 | 0.29 | 100 |
| **Comic** | 81.81 | 14.88 | 0.77 | 0.25 | 1.61 | 0.69 | 100 |
| **Crafts** | 61.85 | 23.22 | 1.29 | 1.60 | 11.83 | 0.22 | 100 |
| **Dance** | 76.26 | 17.46 | 0.38 | 2.29 | 3.34 | 0.27 | 100 |
| **Design** | 69.19 | 15.56 | 0.52 | 1.13 | 13.32 | 0.29 | 100 |
| **Fashion** | 68.51 | 19.06 | 1.08 | 4.60 | 6.65 | 0.10 | 100 |
| **Film & Videos** | 71.02 | 21.43 | 1.55 | 1.20 | 4.75 | 0.05 | 100 |

**Table 4.3. (cont.)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Food** | 76.13 | 18.91 | 1.02 | 0.53 | 3.39 | 0.02 | 100 |
| **Games** | 64.64 | 22.21 | 1.66 | 4.08 | 5.56 | 1.86 | 100 |
| **Journalism** | 71.52 | 20.68 | 4.80 | 0.66 | 2.32 | 0.02 | 100 |
| **Music** | 75.43 | 18.86 | 1.31 | 0.73 | 3.51 | 0.16 | 100 |
| **Photography** | 42.98 | 45.85 | 1.92 | 1.18 | 7.58 | 0.49 | 100 |
| **Publishing** | 76.85 | 18.15 | 0.85 | 0.69 | 3.35 | 0.11 | 100 |
| **Technology** | 63.05 | 11.15 | 0.40 | 0.64 | 23.30 | 1.46 | 100 |
| **Theater** | 77.12 | 20.44 | 0.68 | 0.79 | 0.95 | 0.02 | 100 |

The above table 4.3 given above shows the distribution of backers in different regions across project categories of kickstart platform crowdfunding campaigns. The table shows that North America leads in among all the regions because almost 60% of campaigns in our dataset are from North America. In North America, most campaigns receive their funding from comics (81.81%), publishing (76.85%), and art publishing (76.13%). Western Europe, on the other hand, has a more equitable distribution, with a clear emphasis on photography (45.85%), technology (11.15%), and art (25.17%).

Backers in Asia-Pacific are showing great interest in technology (23.30%), reflecting the region's commitment to technological growth, whereas Southern Europe and Eastern Europe have lower backer participation in most categories. Southern Europe has the most support for art (3.16%) and design (1.13%), but these figures are still lower than in North America.

Further, the table shows that Eastern Europe has the lowest backers in each category, with gaming (1.86%) being the most popular category. This statistic underlines the need to understand regional crowdfunding preferences, stating that North America prefers consumer-driven and artistic efforts, whereas Asia-Pacific has a more technologically adept contributor base. Southern and Eastern Europe, on the other hand, have lower levels of engagement in most categories, highlighting the importance of specific techniques when approaching crowdfunding in different regions.

**Table 4.4. Distribution of Pledged Amount for Different Project Categories by Region (%)**

| | North America | Western Europe | Nordic Countries | Southern Europe | Asia-Pacific | Eastern Europe | Total |
|---|---|---|---|---|---|---|---|
| **Art** | 64.54 | 23.16 | 1.69 | 3.03 | 7.25 | 0.33 | 100 |
| **Comic** | 84.43 | 12.99 | 0.72 | 0.17 | 1.10 | 0.59 | 100 |
| **Crafts** | 67.20 | 16.41 | 0.71 | 1.70 | 13.74 | 0.23 | 100 |
| **Dance** | 76.62 | 18.60 | 0.21 | 1.38 | 3.08 | 0.11 | 100 |
| **Design** | 68.34 | 15.33 | 0.74 | 1.35 | 13.95 | 0.28 | 100 |
| **Fashion** | 65.12 | 20.32 | 1.65 | 5.62 | 7.18 | 0.11 | 100 |
| **Film & Videos** | 74.10 | 19.88 | 1.16 | 0.82 | 3.95 | 0.09 | 100 |
| **Food** | 71.61 | 25.44 | 0.55 | 0.29 | 2.11 | 0.01 | 100 |
| **Games** | 66.27 | 20.34 | 1.70 | 3.39 | 5.85 | 2.45 | 100 |
| **Journalism** | 72.71 | 21.45 | 4.01 | 0.54 | 1.29 | 0.00 | 100 |
| **Music** | 78.88 | 15.58 | 0.86 | 0.51 | 4.00 | 0.17 | 100 |
| **Photography** | 47.49 | 42.67 | 1.21 | 1.07 | 7.20 | 0.36 | 100 |
| **Publishing** | 82.99 | 13.47 | 0.52 | 0.47 | 2.48 | 0.06 | 100 |
| **Technology** | 63.72 | 8.97 | 0.35 | 0.44 | 25.24 | 1.29 | 100 |
| **Theater** | 79.82 | 18.04 | 0.47 | 0.75 | 0.92 | 0.00 | 100 |

Reference: Author's Own Work

Contingency table 4.4 given above show the Kickstarter platform campaigns' pledge amounts distributed across different regions across various categories, with the percentages reflecting the relative contribution of each category within its respective region. Several important findings are revealed by a formal study of the data. North America, in most of the categories, typically has the largest pledge amounts, such as in art (64.54%), comic (84.43%), and music (78.88%) categories are especially noteworthy. This implies that North American stakeholders are heavily represented and in control of these industries. On the other hand, Asia Pacific distribution, is more diverse with notable contributions in the technology category with 25.24% and crafts with 13.74%. This could be a result of the region's growing interest in the technological and creative industries. Overall, this analysis highlights the dominance of North America in the global creative industries while also highlighting the differences in regional engagement, with Eastern Europe showing the lowest levels of participation in the categories being examined.

## 4.2. Main Model SDG Package Results

**Table 4.5. Regression Result of Pledged Amount with Overall SDGs**

| Ln_pledged | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDGS | .142 | .026 | 5.57 | 0 | .092 | .192 | *** |
| CD | -.042 | .001 | -74.22 | 0 | -.044 | -.041 | *** |
| POS | .307 | .016 | 19.36 | 0 | .276 | .338 | *** |
| NEG | .094 | .024 | 3.87 | 0 | .046 | .142 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.301 | .018 | -16.96 | 0 | -.336 | -.266 | *** |
| Nordic Countries | -.087 | .072 | -1.20 | .229 | -.229 | .055 | |
| Southern Europe | -.76 | .045 | -16.80 | 0 | -.848 | -.671 | *** |
| Asia-Pacific | .304 | .028 | 10.85 | 0 | .249 | .359 | *** |
| Eastern Europe | -.83 | .083 | -10.05 | 0 | -.992 | -.668 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.097 | .033 | 33.36 | 0 | 1.032 | 1.161 | *** |
| Crafts | -1.21 | .054 | -22.36 | 0 | -1.316 | -1.104 | *** |
| Dance | .104 | .139 | 0.75 | .455 | -.169 | .377 | |
| Design | 1.402 | .032 | 44.16 | 0 | 1.34 | 1.464 | *** |
| Fashion | -.16 | .038 | -4.17 | 0 | -.235 | -.085 | *** |
| Film & Videos | .106 | .034 | 3.15 | .002 | .04 | .172 | *** |
| Food | -.249 | .042 | -5.92 | 0 | -.332 | -.167 | *** |
| Games | 1.097 | .029 | 38.45 | 0 | 1.041 | 1.153 | *** |
| Journalism | -1.437 | .096 | -15.05 | 0 | -1.624 | -1.25 | *** |
| Music | .181 | .038 | 4.76 | 0 | .106 | .255 | *** |
| Photography | .266 | .065 | 4.13 | 0 | .14 | .393 | *** |
| Publishing | .2 | .031 | 6.42 | 0 | .139 | .262 | *** |
| Technology | .151 | .033 | 4.53 | 0 | .086 | .217 | *** |
| Theater | .157 | .079 | 1.99 | .047 | .002 | .312 | ** |
| Constant | 8.124 | .03 | 272.52 | 0 | 8.065 | 8.182 | *** |
| | | | | | | | |
| Mean dependent var | 7.233 | | SD dependent var | | 2.881 | | |
| R-squared | 0.106 | | Number of obs | | 138393 | | |
| F-test | 715.374 | | Prob > F | | 0.000 | | |
| Akaike crit. (AIC) | 670162.829 | | Bayesian crit. (BIC) | | 670398.938 | | |
| *** p<.01, ** p<.05, * p<.1 | | | | | | | |

Reference: Author's Own Work

Regression results from table 4.5 are related to the regression model one that is described methodology chapter comprehensively. Model one measuring the overall impact of SDGs on the pledged amount. Regression results indicates that SDGs have positive and significant impact on the campaign pledged amount. Overall SDGs have a coefficient of 0.142, which is statistically significant at 1% ($p < 0.01$), meaning that for every additional SDG related word in the campaign description, the pledged amount rises by about 14.2%, emphasizing the significance of adding sustainability

and social responsibility related concepts to crowdfunding projects. Campaigns having positive sentiment in the descriptions receive around 30.7% more funds (coefficient = 0.307, $p < 0.01$), while on the other hand, negative sentiments have a positive impact with a coefficient of 0.094 ($p < 0.01$), resulting in a 9.4% rise in pledged amount for every additional SDG related word.

Longer campaigns result in lower pledge levels, which is illustrated by the significant negative relationship (-0.042, $p < 0.01$) between the campaign duration and pledged amount. This shows that every extra day of campaign duration reduces the committed amount by 4.2%. This negative association shows that projects that fit with the SDGs and use a positive message are more likely to succeed in a shorter period, since funders may be more motivated to engage with campaigns that are perceived as time-sensitive or urgent. Shorter campaign durations more effective in getting pledges, especially when sustainability-focused themes are stressed.

Further, our results show that success varies significantly by region. Western Europe, Southern Europe, and Eastern Europe have negative coefficients, indicating that campaigns in these regions earn much lower committed amounts than the base group, North America. Campaigns in Southern Europe show a 76% decline, and Eastern Europe has an 83% decrease in the pledged amount. In contrast, campaigns in the Asia-Pacific area demonstrate a positive and significant link with a 30.4% greater pledged amounts ($p < 0.01$), indicating great participation and interest in crowdfunding in this region then the base region.

Campaign success also has significant differences between certain categories, such as Comic, Design, and Games, which have much higher pledged amounts than Art, the base category. Comic initiatives result in a 109.7% rise in pledged amount, whereas Design campaigns increase by 140.2% ($p < 0.01$). These findings suggest that some categories are more important for backers. Fashion and Food campaigns saw reduced pledged amounts, with a 16% and 24.9% reduction, respectively ($p < 0.01$). Our research findings imply that specific campaign categories and locations determine crowdfunding performance, and that aligning with SDGs while generating positive messaging might increase the likelihood of success.

## Table 4.6. Regression Result of Pledged Amount with Individual SDGs

| Ln_pledged | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDG1 | -.683 | .378 | -1.80 | .071 | -1.424 | .059 | * |
| SDG2 | -.47 | .156 | -3.01 | .003 | -.775 | -.164 | *** |
| SDG3 | -.227 | .097 | -2.34 | .019 | -.417 | -.037 | ** |
| SDG4 | -.239 | .13 | -1.84 | .066 | -.494 | .015 | * |
| SDG5 | .211 | .111 | 1.90 | .057 | -.006 | .428 | * |
| SDG6 | .65 | .211 | 3.09 | .002 | .237 | 1.063 | *** |
| SDG7 | .369 | .154 | 2.40 | .017 | .067 | .672 | ** |
| SDG8 | -.074 | .165 | -0.45 | .653 | -.397 | .249 | |
| SDG9 | .114 | .196 | 0.58 | .559 | -.269 | .498 | |
| SDG10 | -.314 | .205 | -1.53 | .125 | -.715 | .088 | |
| SDG11 | -.114 | .132 | -0.86 | .387 | -.372 | .144 | |
| SDG12 | .131 | .107 | 1.23 | .22 | -.078 | .34 | |
| SDG13 | .399 | .059 | 6.74 | 0 | .283 | .515 | *** |
| SDG14 | .806 | .17 | 4.74 | 0 | .473 | 1.139 | *** |
| SDG15 | .001 | .082 | 0.01 | .993 | -.16 | .161 | |
| SDG16 | .271 | .069 | 3.95 | 0 | .136 | .405 | *** |
| SDG17 | -.441 | .497 | -0.89 | .375 | -1.416 | .533 | |
| CD | -.042 | .001 | -74.16 | 0 | -.044 | -.041 | *** |
| POS | .308 | .016 | 19.42 | 0 | .277 | .339 | *** |
| NEG | .096 | .024 | 3.93 | 0 | .048 | .144 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.302 | .018 | -17.04 | 0 | -.337 | -.267 | *** |
| Nordic Countries | -.088 | .072 | -1.21 | .225 | -.23 | .054 | |
| Southern Europe | -.761 | .045 | -16.83 | 0 | -.849 | -.672 | *** |
| Asia-Pacific | .302 | .028 | 10.79 | 0 | .247 | .357 | *** |
| Eastern Europe | -.829 | .083 | -10.03 | 0 | -.99 | -.667 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.096 | .033 | 33.31 | 0 | 1.031 | 1.16 | *** |
| Crafts | -1.207 | .054 | -22.30 | 0 | -1.313 | -1.101 | *** |
| Dance | .11 | .139 | 0.79 | .429 | -.163 | .383 | |
| Design | 1.396 | .032 | 43.91 | 0 | 1.334 | 1.458 | *** |
| Fashion | -.162 | .038 | -4.24 | 0 | -.237 | -.087 | *** |
| Film & Videos | .105 | .034 | 3.14 | .002 | .04 | .171 | *** |
| Food | -.228 | .042 | -5.39 | 0 | -.311 | -.145 | *** |
| Games | 1.097 | .029 | 38.46 | 0 | 1.041 | 1.153 | *** |
| Journalism | -1.432 | .095 | -15.00 | 0 | -1.619 | -1.245 | *** |
| Music | .18 | .038 | 4.73 | 0 | .105 | .254 | *** |
| Photography | .266 | .065 | 4.12 | 0 | .139 | .393 | *** |
| Publishing | .203 | .031 | 6.50 | 0 | .142 | .264 | *** |
| Technology | .148 | .033 | 4.44 | 0 | .083 | .214 | *** |
| Theater | .156 | .079 | 1.97 | .048 | .001 | .311 | ** |
| Constant | 8.124 | .03 | 272.52 | 0 | 8.065 | 8.182 | *** |
| | | | | | | | |
| Mean dependent var | 7.233 | | SD dependent var | | 2.881 | | |
| R-squared | 0.107 | | Number of obs | | 138393 | | |
| F-test | 425.174 | | Prob > F | | 0.000 | | |
| Akaike crit. (AIC) | 670078.577 | | Bayesian crit. (BIC) | | 670472.091 | | |
| *** p<.01, ** p<.05, * p<.1 | | | | | | | |

Reference: Author's Own Work

The regression results in Table 4.6 above show that SDG5 (Gender Equality), SDG6 (Clean Water and Sanitation), SDG7 (Affordable and Clean Energy), SDG13 (Climate Action), SDG14 (Life Below Water), and SDG16 have a positive impact on the pledged amount. With each additional unit of SDG6 increase by 65% in pledged amounts, SDG13 39.9%, SDG14 80.6% and SDG16 27.1 % increases in pledged amount. Suggesting that campaigns aligned with environmental, sustainability, gender equality, energy, and promoting peace and justice goals tend to perform significantly better in terms of fundraising on the Kickstarter platform.

On the other hand, several SDGs on the Kickstarter platform show a negative impact on the pledged amount. Such as SDG1 (No Poverty), SDG2 (Zero Hunger), SDG3 (Good Health and Well-being), and SDG4 (Quality Education) have negative impact, indicating that campaigns focused on these SDGs raise fewer funds, with SDG2 showing a 47% decrease and SDG3 a 22.7% decrease in pledged amounts.

Finally, some SDGs, such as SDG8 (Decent Work and Economic Growth), SDG9 (Industry, SDG10 (Reduced Inequalities), SDG11(Sustainable Cities and Communities), SDG12 (Responsible Consumption and Production), SDG17 (Partnerships for the Goals), and SDG15 (Life on Land), do not have a significant impact on the pledged amount. These findings imply that campaigns associated with these SDGs have no significance in terms of fundraising on Kickstarter platforms.

Campaigns in categories like Comic, Design, and Games perform significantly better, and the Food and Fashion categories show lower pledged amounts. Regionally, Asia-Pacific campaigns raise 30.2% more in pledged amounts, while Western Europe, Southern Europe, and Eastern Europe raise less compared to North America. These findings highlight the significance of category-specific and region-specific strategies in crowdfunding success.

**Table 4.7. Regression Result of Backers with Overall SDGs**

| Ln_backers | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDGS | .07 | .016 | 4.42 | 0 | .039 | .101 | *** |
| CD | -.029 | 0 | -81.54 | 0 | -.03 | -.028 | *** |
| POS | .172 | .01 | 17.56 | 0 | .153 | .191 | *** |
| NEG | .108 | .015 | 7.17 | 0 | .079 | .138 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.172 | .011 | -15.65 | 0 | -.193 | -.15 | *** |
| Nordic Countries | -.045 | .045 | -1.00 | .317 | -.133 | .043 | |
| Southern Europe | -.386 | .028 | -13.77 | 0 | -.44 | -.331 | *** |
| Asia-Pacific | .12 | .017 | 6.93 | 0 | .086 | .154 | *** |
| Eastern Europe | -.558 | .051 | -10.91 | 0 | -.658 | -.458 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.048 | .02 | 51.47 | 0 | 1.008 | 1.088 | *** |
| Crafts | -.841 | .034 | -25.11 | 0 | -.907 | -.775 | *** |
| Dance | -.199 | .086 | -2.31 | .021 | -.368 | -.03 | ** |
| Design | .683 | .02 | 34.74 | 0 | .644 | .721 | *** |
| Fashion | -.222 | .024 | -9.38 | 0 | -.269 | -.176 | *** |
| Film & Videos | -.319 | .021 | -15.34 | 0 | -.36 | -.278 | *** |
| Food | -.371 | .026 | -14.24 | 0 | -.422 | -.32 | *** |
| Games | 1.042 | .018 | 59.00 | 0 | 1.007 | 1.077 | *** |
| Journalism | -.742 | .059 | -12.55 | 0 | -.858 | -.626 | *** |
| Music | .034 | .024 | 1.44 | .149 | -.012 | .08 | |
| Photography | -.007 | .04 | -0.16 | .871 | -.085 | .072 | |
| Publishing | .17 | .019 | 8.77 | 0 | .132 | .207 | *** |
| Technology | -.087 | .021 | -4.19 | 0 | -.127 | -.046 | *** |
| Theater | -.26 | .049 | -5.30 | 0 | -.356 | -.164 | *** |
| Constant | 4.249 | .018 | 230.21 | 0 | 4.213 | 4.285 | *** |

| | | | |
|---|---|---|---|
| Mean dependent var | 3.615 | SD dependent var | 1.845 |
| R-squared | 0.165 | Number of obs | 138393 |
| F-test | 1185.134 | Prob > F | 0.000 |
| Akaike crit. (AIC) | 537477.116 | Bayesian crit. (BIC) | 537713.224 |

*** *p<.01*, ** *p<.05*, * *p<.1*

Reference: Author's Own Work

The regression results given in table 4.7 show that SDG alignment has significant positive impact on the number of backers in crowdfunding campaigns. The coefficient for SDGS is 0.07 ($p < 0.01$), meaning that for every additional SDG-related sentence in a campaign description, the number of backers increases by 7%.

This highlights the significance of adding sustainability and social responsibility to campaigns. Positive and negative sentences have a high positive influence on backers, with a coefficient of 0.172 ($p < 0.01$).

Campaigns with positive sentences attract 17.2% more backers, while negative campaigns attract 10.8% more backers. Significant Backer involvement is negatively impacted by campaign duration, with a coefficient of -0.029 ($p < 0.01$) indicating a 2.9% decrease every additional day.

This shows that shorter campaigns may be more effective at attracting supporters, and when SDGs are mentioned, it signals people to act in an emergency. Regional disparities are also significant, with Asia-Pacific campaigns receiving 12% more support than in North America, while Western Europe, Southern Europe, and Eastern Europe receive fewer backers.

Campaigns in categories such as comics, design, and games perform better than those in art, drawing more backers. On the other hand, the category of Food and Fashion has fewer backers. These findings highlight the relevance of region- and category-specific methods in crowdfunding success, with SDG alignment and positive messages being critical in generating backer participation.

## Table 4.8. Regression Result of Backers Amount with Individual SDGs

| Ln_backers | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDG1 | -.4 | .234 | -1.71 | .088 | -.859 | .059 | * |
| SDG2 | -.301 | .096 | -3.12 | .002 | -.49 | -.112 | *** |
| SDG3 | -.154 | .06 | -2.57 | .01 | -.272 | -.036 | ** |
| SDG4 | -.233 | .08 | -2.90 | .004 | -.391 | -.076 | *** |
| SDG5 | .097 | .069 | 1.41 | .158 | -.038 | .231 | |
| SDG6 | .532 | .13 | 4.08 | 0 | .276 | .788 | *** |
| SDG7 | .095 | .095 | 0.99 | .32 | -.092 | .282 | |
| SDG8 | -.112 | .102 | -1.10 | .27 | -.312 | .087 | |
| SDG9 | -.056 | .121 | -0.46 | .645 | -.293 | .182 | |
| SDG10 | -.198 | .127 | -1.56 | .119 | -.446 | .051 | |
| SDG11 | -.198 | .081 | -2.43 | .015 | -.357 | -.038 | ** |
| SDG12 | .068 | .066 | 1.02 | .306 | -.062 | .197 | |
| SDG13 | .205 | .037 | 5.60 | 0 | .133 | .277 | *** |
| SDG14 | .405 | .105 | 3.85 | 0 | .199 | .611 | *** |
| SDG15 | .003 | .051 | 0.07 | .945 | -.096 | .103 | |
| SDG16 | .291 | .042 | 6.86 | 0 | .208 | .374 | *** |
| SDG17 | -.332 | .308 | -1.08 | .281 | -.936 | .271 | |
| CD | -.029 | 0 | -81.47 | 0 | -.03 | -.028 | *** |
| POS | .173 | .01 | 17.64 | 0 | .154 | .192 | *** |
| NEG | .109 | .015 | 7.25 | 0 | .08 | .139 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.173 | .011 | -15.73 | 0 | -.194 | -.151 | *** |
| Nordic Countries | -.044 | .045 | -0.99 | .322 | -.132 | .044 | |
| Southern Europe | -.386 | .028 | -13.77 | 0 | -.44 | -.331 | *** |
| Asia-Pacific | .12 | .017 | 6.89 | 0 | .086 | .154 | *** |
| Eastern Europe | -.557 | .051 | -10.90 | 0 | -.657 | -.457 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.046 | .02 | 51.37 | 0 | 1.006 | 1.086 | *** |
| Crafts | -.837 | .034 | -24.98 | 0 | -.903 | -.771 | *** |
| Dance | -.195 | .086 | -2.26 | .024 | -.364 | -.026 | ** |
| Design | .681 | .02 | 34.60 | 0 | .642 | .72 | *** |
| Fashion | -.224 | .024 | -9.44 | 0 | -.27 | -.177 | *** |
| Film & Videos | -.32 | .021 | -15.40 | 0 | -.361 | -.28 | *** |
| Food | -.356 | .026 | -13.57 | 0 | -.408 | -.305 | *** |
| Games | 1.043 | .018 | 59.07 | 0 | 1.008 | 1.078 | *** |
| Journalism | -.74 | .059 | -12.51 | 0 | -.855 | -.624 | *** |
| Music | .034 | .024 | 1.45 | .146 | -.012 | .08 | |
| Photography | -.007 | .04 | -0.17 | .866 | -.085 | .072 | |
| Publishing | .171 | .019 | 8.83 | 0 | .133 | .209 | *** |
| Technology | -.085 | .021 | -4.12 | 0 | -.126 | -.045 | *** |
| Theater | -.262 | .049 | -5.35 | 0 | -.358 | -.166 | *** |
| Constant | 4.247 | .018 | 230.15 | 0 | 4.211 | 4.284 | *** |

| | | | |
|---|---|---|---|
| Mean dependent var | 3.615 | SD dependent var | 1.845 |
| R-squared | 0.165 | Number of obs | 138393 |
| F-test | 703.267 | Prob > F | 0.000 |
| Akaike crit. (AIC) | 537365.044 | Bayesian crit. (BIC) | 537758.559 |

*** p<.01, ** p<.05, * p<.1*

Reference: Author's Own Work

The regression results in Table 4.8 provide valuable information on how different SDGs impact crowdfunding campaign backers. SDGs 6 (Clean Water and Sanitation), 13 (Climate Action), 14 (Life Below Water), and 16 (Peace, Justice, and Strong Institutions) have a positive and significant impact on the number of backers the campaign can get for the Kickstarter platform. With each additional unit of SDGS in the campaign description, SDG6 increases the number of backers by 53.2%, SDG13 by 20.5%, SDG14 by 40.5%, and SDG16 a 29.1% on average. Indicating substantial support for water-related projects, significantly increased backer engagement in climate action, marine conservation efforts, and the project for strong institutional and justice.

Results of the regression also reveal that certain SDGs are negatively correlated with the number of backers. For instance, SDG1 (No Poverty), SDG3 (Good Health and Well-being), SDG2 (Zero Hunger), SDG3 (Good Health and Well-being), SDG4 (Quality Education), and SDG11 (Sustainable Cities and Communities) have a negative relationship with the number of backers. Indicating that campaigns focusing on poverty reduction, hunger and health issues, and education on the Kickstarter platform may not resonate as strongly with backers as other SDGs do.

Several SDGs, which include SDG5 (Gender Equality), SDG7 (Affordable and Clean Energy), SDG8 (Decent Work and Economic Growth), SDG9 (Industry, Innovation, and Infrastructure), SDG10 (Reduced Inequalities), SDG12 (Responsible Consumption and Production), SDG15 (Life on Land), and SDG17 (Partnerships for the Goals), show no significant relationship with the number of backers. This indicates that campaigns focused on certain SDGs do not see a significant increase or fall in backers on the Kickstarter platform.

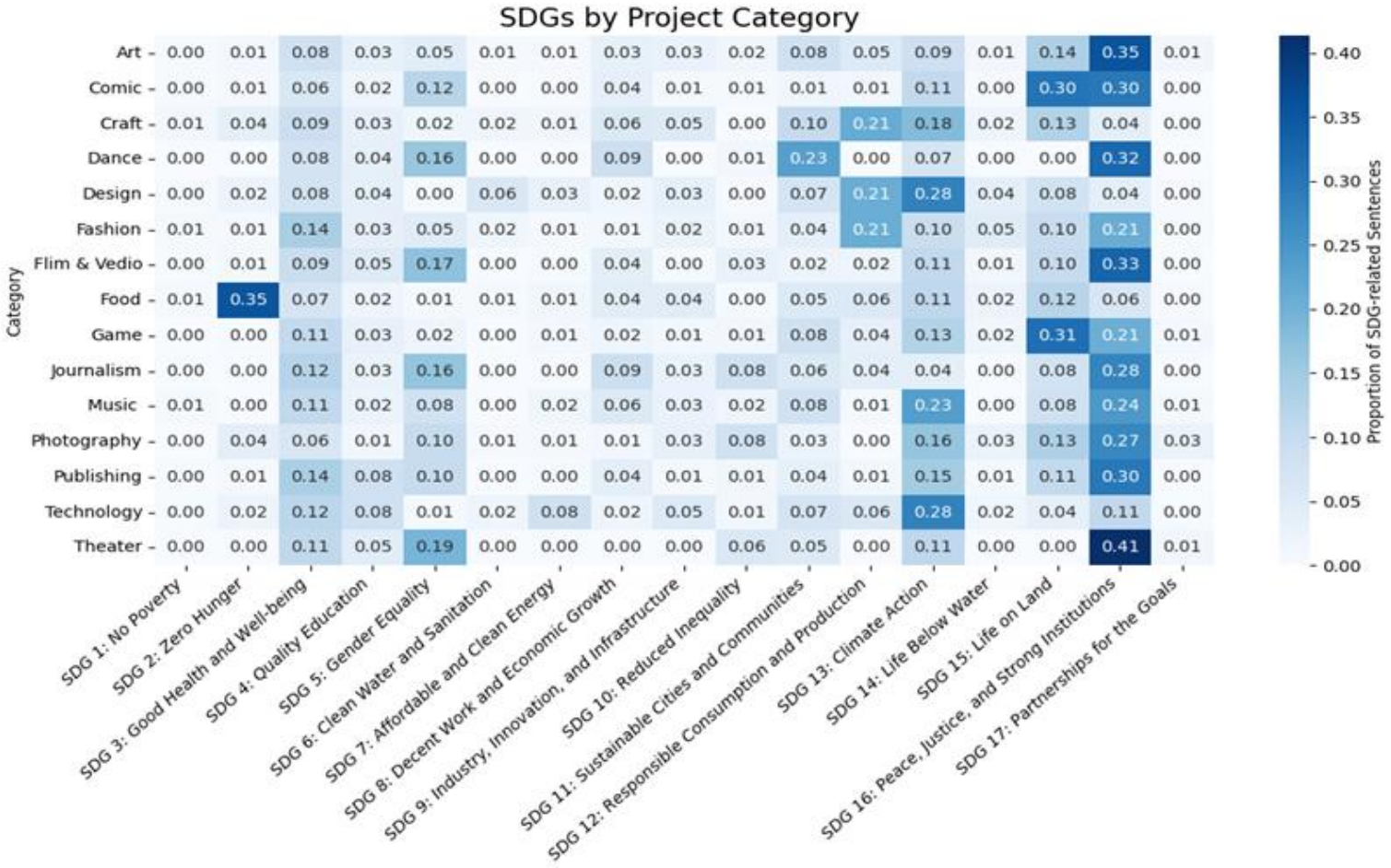



**Figure 4.1. Proportion of SDGs-Related Sentences by Category**

The figure 4.1 depicts the proportion of SDG-related statements across Kickstarter project categories. It illustrates the distribution of specific SDGs across the campaign categories. In the figure, the darker blue box portion implies a larger number of SDGs found, whereas the lighter blue tones imply a smaller proportion. For example, the Food category has the highest proportion of SDG-related programs associated with SDG2 (Zero Hunger), at 35%, demonstrating the linkage of food-related programs with sustainability objectives. Similarly, the technology category demonstrates a good relationship with SDG13 (climate actions), with 25 percent of the climate action belonging to the technology category.

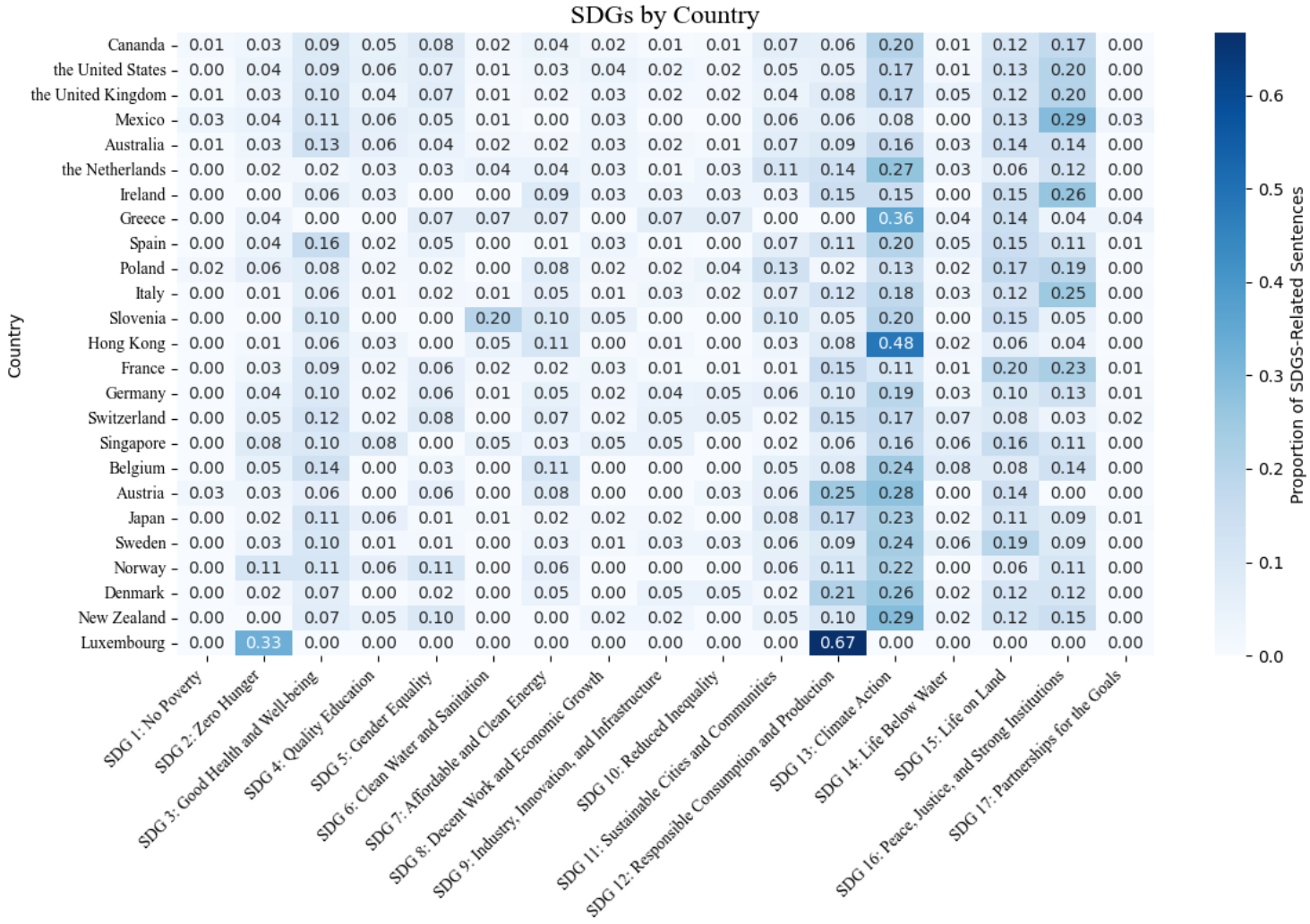



**Figure 4.2. Proportion of SDGs-Related Sentences by Country**

The heatmap figure 4.2 displays the percentage of SDGs in various nations for Kickstarter platform crowdfunding campaigns. It shows which countries are producing more campaigns related to the SDGs. Countries that have focus on which specific SDGs out of the 17 can be seen in the figure though identify the dark blue and light blue colors. Countries with dark blue color o some boxes show that they have more interest in the SDG and vice versa.

The heatmap demonstrates that Luxembourg has the highest proportion of SDG-related words, particularly for SDG12 (Responsible Consumption and Production), with a 67% alignment, and SDG2 Zero Hunger. This indicates that crowdfunding initiatives are heavily focused on responsible consumption and production and the elimination of hunger. In addition, Hong Kong's 48% of campaign is focused on SDG13 (climate action), demonstrating a high interest in environmental problems in the region. On the other hand, in Slovakia, 20 percent of its focus is on generating a campaign aligned with SDG6 (Clean Water and Sanitation), with a higher share of SDG-related sentences across many targets.

In summary, we can conclude from the figures that Luxembourg and Hong Kong are leading in sustainability-related messaging, whereas others, such as Belgium and Italy, place less focus on SDGs in their crowdfunding efforts. This variety may reflect regional disparities in awareness, participation in global aims, or the popularity of certain causes on local crowdfunding sites.

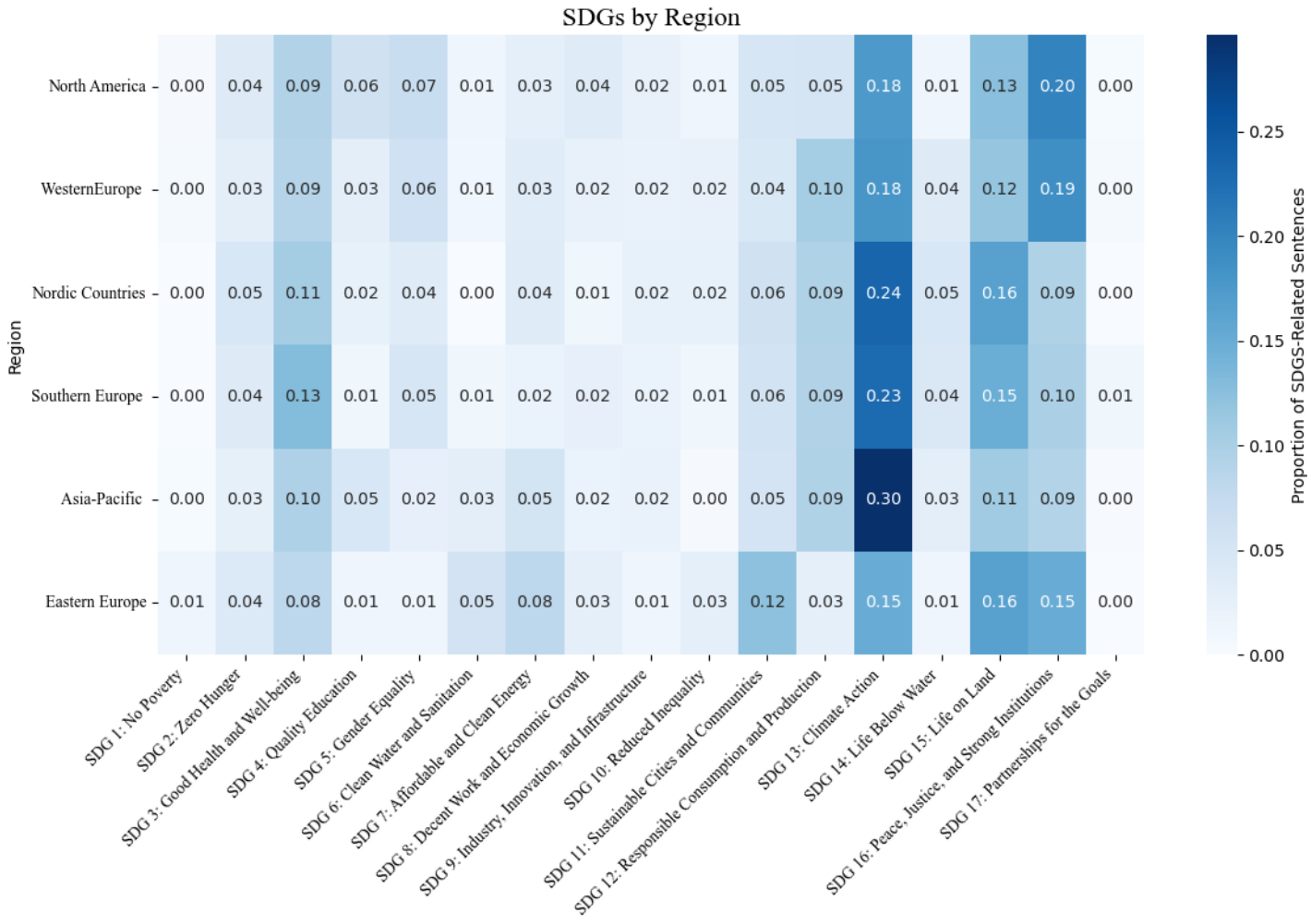



**Figure 4.3. Proportion of SDGs-Related Sentences by Region**

The figure 4.3 illustrates the proportion of SDGs discovered through the SDGdetector package across six different regions for crowdfunding campaigns of Kickstarter, showing which region is creating which United Nations Sustainable Development Goals (SDGs) campaign.

Blue shading intensity reflects the extent to which campaigns in each region prioritize SDGs, with darker blue suggesting greater congruence and lighter blue with less convergence. Asia-Pacific and Southern Europe form the diagram, showing that they are creating more campaigns related to SDG13 (Climate Action), making these regions more significant for environmentally related projects. Eastern Europe, Western Europe, and North America demonstrate differing levels of connection across multiple SDGs but mostly focused on SDG 16(peace, justice, and strong institutions). Meanwhile, this analysis highlights the geographic differences in how crowdfunding campaigns address global sustainability difficulties, with some countries prioritizing climate action while others emphasizing responsible consumerism and social issues.

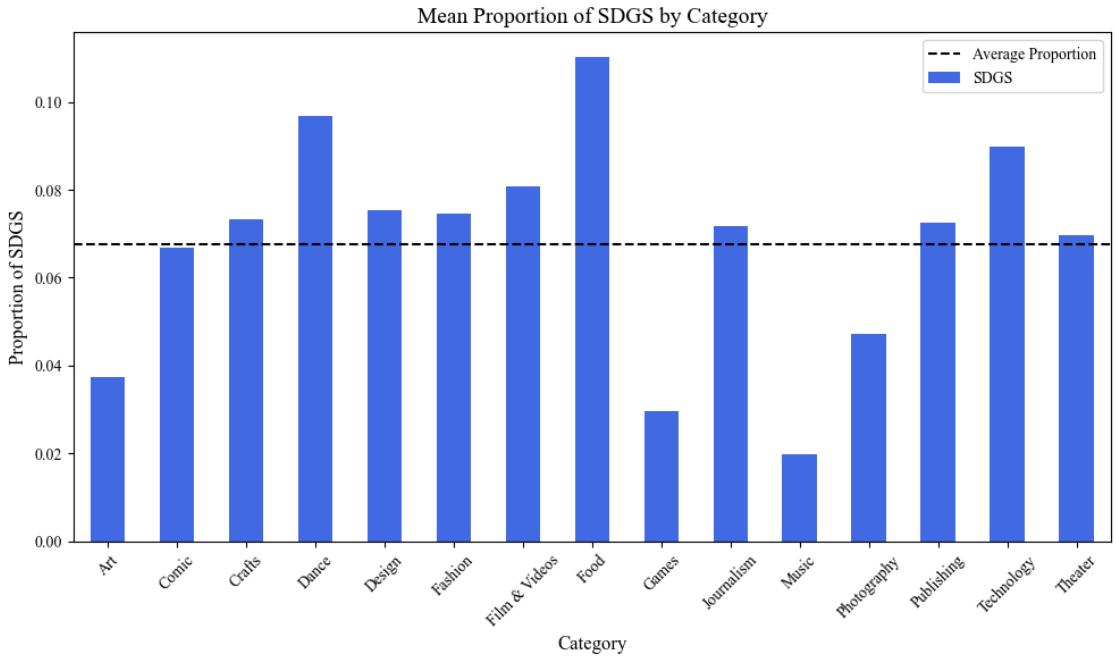



**Figure 4.4. Average Proportion of SDGs by Campaign Category**

The bar chart above shows the average proportion of SDGs across project categories of the Kickstarter platform campaign. In the figure, the x-axis indicates several categories such as Technology, Comics, Arts, Dance, and others, while the y-axis shows the proportion of SDG related sentences in the description of campaigns within each category. The bars in the figure depict the proportion of SDGs in each category, and the horizontal line represents the average proportion of SDGs across all categories.

The graph indicates that on the Kickstarter platform, categories such as technology, Food, and Film & Videos have a larger proportion of SDG-related content. Especially with food having the highest means, showing dedicated support for global concerns such as hunger and health. On the other hand, categories such as theater, arts, and music have smaller proportions, indicating a reduced emphasis on sustainability. The horizontal dotted line shows that food, technology, and dance have performed well, the categories such as Art and Theater.

### 4.3. Robustness Check of Results Using SDG Package

**Table 4.9. Robustness Reg Result of Pledged Amount with Overall SDGs**

| ln_pledged | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDGS | .043 | .019 | 2.25 | .025 | .005 | .081 | ** |
| CD | -.042 | .001 | -74.17 | 0 | -.044 | -.041 | *** |
| POS | .307 | .016 | 19.41 | 0 | .276 | .339 | *** |
| NEG | .097 | .024 | 3.97 | 0 | .049 | .144 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.3 | .018 | -16.92 | 0 | -.335 | -.266 | *** |
| Nordic Countries | -.087 | .072 | -1.20 | .23 | -.229 | .055 | |
| Southern Europe | -.76 | .045 | -16.81 | 0 | -.849 | -.672 | *** |
| Asia-Pacific | .304 | .028 | 10.85 | 0 | .249 | .359 | *** |
| Eastern Europe | -.828 | .083 | -10.02 | 0 | -.99 | -.666 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.1 | .033 | 33.47 | 0 | 1.036 | 1.165 | *** |
| Crafts | -1.207 | .054 | -22.31 | 0 | -1.313 | -1.101 | *** |
| Dance | .106 | .139 | 0.76 | .446 | -.167 | .379 | |
| Design | 1.403 | .032 | 44.14 | 0 | 1.341 | 1.466 | *** |
| Fashion | -.158 | .038 | -4.13 | 0 | -.233 | -.083 | *** |
| Film & Videos | .11 | .034 | 3.27 | .001 | .044 | .176 | *** |
| Food | -.245 | .042 | -5.82 | 0 | -.328 | -.163 | *** |
| Games | 1.096 | .029 | 38.41 | 0 | 1.04 | 1.152 | *** |
| Journalism | -1.438 | .096 | -15.05 | 0 | -1.625 | -1.251 | *** |
| Music | .179 | .038 | 4.71 | 0 | .104 | .253 | *** |
| Photography | .266 | .065 | 4.12 | 0 | .14 | .393 | *** |
| Publishing | .204 | .031 | 6.51 | 0 | .142 | .265 | *** |
| Technology | .152 | .033 | 4.54 | 0 | .086 | .218 | *** |
| Theater | .159 | .079 | 2.01 | .044 | .004 | .314 | ** |
| Constant | 8.125 | .03 | 272.52 | 0 | 8.067 | 8.184 | *** |
| | | | | | | | |
| Mean dependent var | 7.233 | | SD dependent var | | 2.881 | | |
| R-squared | 0.106 | | Number of obs | | 138393 | | |
| F-test | 714.113 | | Prob > F | | 0.000 | | |
| Akaike crit. (AIC) | 670188.768 | | Bayesian crit. (BIC) | | 670424.877 | | |
| *** p<.01, ** p<.05, * p<.1 | | | | | | | |

Reference: Author's Own Work

To make a robustness check of the results that are found in the first section, we have conducted four different regressions on the Text2SDG package dataset, which we later compared with the initial dataset results to check the robustness of our results, which helps us to identify the real impact of SDG alignment on pledged amount. The results show that the SDG alignment has a significant positive impact on the pledged amounts. SDGS has a coefficient of 0.43, which is statistically significant at 1% ($p < 0.05$), showing us that with that for every additional SDG related sentence in the campaign description, the pledged amount rises by about 43%, emphasizing the significance of

adding sustainability and social responsibility to crowdfunding projects and backing our result robustness.

A campaign having a positive sentence also affects the campaign pledged amount positively and significantly. A campaign's duration also shows the same relationship, negatively significantly resulting in lower pledge levels as the campaign duration rises. This shows that every extra day of campaign duration reduces the committed amount by 4.2%. Shorter campaign durations may be more effective in getting pledges, especially when sustainability-focused themes are stressed, as proved in the literature as well.

Further, our results show that success varies significantly by region. Western Europe, Southern Europe, and Eastern Europe have negative and significant coefficients, indicating that campaigns in these regions earn much lower committed amounts than the base group, North America. And campaigns in the Asia-Pacific area demonstrate a positive and significant link with a 30.4% rise in pledged amounts ($p < 0.01$), indicating great participation and interest in crowdfunding in this region, the same as the SDG detector package result.

The campaign's success is also significant, varying across certain categories, such as Comic, Design, and Games, Technology, and publishing has much higher pledged amounts than Art, the base category. While fashion craft, journalism, and fashion have seen reduced pledged amounts as compared to the base category. In summer, all the overall results of the SDG variable taken from the Text2SDG also show us the approximately same relationship and provide the accuracy of our results.

**Table 4.10. Robustness Reg Result of Pledged Amount with Individual SDGs**

| ln_pledged | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDG1 | .096 | .065 | 1.47 | .143 | -.032 | .224 | |
| SDG2 | -.825 | .241 | -3.43 | .001 | -1.297 | -.353 | *** |
| SDG3 | -.534 | .068 | -7.91 | 0 | -.666 | -.402 | *** |
| SDG4 | -.545 | .139 | -3.91 | 0 | -.819 | -.272 | *** |
| SDG5 | .029 | .106 | 0.28 | .781 | -.178 | .237 | |
| SDG6 | .477 | .077 | 6.20 | 0 | .326 | .628 | *** |
| SDG7 | .995 | .09 | 11.07 | 0 | .819 | 1.171 | *** |
| SDG8 | -.315 | .34 | -0.93 | .353 | -.981 | .35 | |
| SDG9 | .182 | .069 | 2.65 | .008 | .047 | .316 | *** |
| SDG10 | -.255 | .147 | -1.73 | .083 | -.543 | .033 | * |
| SDG11 | -.221 | .056 | -3.97 | 0 | -.33 | -.112 | *** |
| SDG12 | -.505 | .129 | -3.92 | 0 | -.758 | -.252 | *** |
| SDG13 | .37 | .12 | 3.08 | .002 | .134 | .606 | *** |
| SDG14 | .288 | .128 | 2.25 | .024 | .037 | .54 | ** |
| SDG15 | .224 | .102 | 2.20 | .028 | .024 | .423 | ** |
| SDG16 | -.278 | .1 | -2.79 | .005 | -.473 | -.083 | *** |
| SDG17 | -.687 | .603 | -1.14 | .255 | -1.869 | .496 | |
| CD | -.042 | .001 | -73.96 | 0 | -.043 | -.041 | *** |
| POS | .303 | .016 | 19.16 | 0 | .272 | .334 | *** |
| NEG | .096 | .024 | 3.94 | 0 | .048 | .144 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.302 | .018 | -17.06 | 0 | -.337 | -.268 | *** |
| Nordic Countries | -.098 | .072 | -1.36 | .174 | -.24 | .043 | |
| Southern Europe | -.764 | .045 | -16.92 | 0 | -.853 | -.676 | *** |
| Asia-Pacific | .29 | .028 | 10.36 | 0 | .235 | .345 | *** |
| Eastern Europe | -.827 | .083 | -10.02 | 0 | -.988 | -.665 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.104 | .033 | 33.58 | 0 | 1.039 | 1.168 | *** |
| Crafts | -1.207 | .054 | -22.33 | 0 | -1.313 | -1.101 | *** |
| Dance | .128 | .139 | 0.92 | .359 | -.145 | .401 | |
| Design | 1.373 | .032 | 43.11 | 0 | 1.31 | 1.435 | *** |
| Fashion | -.162 | .038 | -4.24 | 0 | -.237 | -.087 | *** |
| Film & Videos | .125 | .034 | 3.73 | 0 | .059 | .191 | *** |
| Food | -.222 | .042 | -5.25 | 0 | -.305 | -.139 | *** |
| Games | 1.09 | .029 | 38.26 | 0 | 1.035 | 1.146 | *** |
| Journalism | -1.406 | .095 | -14.73 | 0 | -1.593 | -1.219 | *** |
| Music | .179 | .038 | 4.72 | 0 | .105 | .253 | *** |
| Photography | .269 | .065 | 4.16 | 0 | .142 | .395 | *** |
| Publishing | .213 | .031 | 6.81 | 0 | .151 | .274 | *** |
| Technology | .122 | .034 | 3.64 | 0 | .056 | .188 | *** |
| Theater | .179 | .079 | 2.26 | .024 | .024 | .334 | ** |
| Constant | 8.129 | .03 | 272.79 | 0 | 8.07 | 8.187 | *** |

| | | | |
|---|---|---|---|
| Mean dependent var | 7.233 | SD dependent var | 2.881 |
| R-squared | 0.108 | Number of obs | 138393 |
| F-test | 431.192 | Prob > F | 0.000 |
| Akaike crit. (AIC) | 669869.108 | Bayesian crit. (BIC) | 670262.622 |

*** p<.01, ** p<.05, * p<.1*

Reference: Author's Own Work

To get the Robustness check of the individual SDGs impact the pledged amount the regression has run on the Text2SDG package dataset which results shown in the above table 4.10, which shows that SDG6 (Clean Water and Sanitation), SDG7 (Affordable and Clean Energy), SDG9 (Industry, SDG10 (Reduced Inequalities), SDG13 (Climate Action), and SDG14 (Life Below Water) have a positive impact on the pledged amount. Suggesting that campaigns aligned with environmental, sustainability, gender equality, energy, and promoting peace and justice goals tend to perform significantly better in terms of fundraising on the Kickstarter platform.

On the other hand, several SDGs on the Kickstarter platform show a negative impact on the pledged amount. Such as, SDG2 (Zero Hunger), SDG3 (Good Health and Well-being), SDG4 (Quality Education), SDG10 (Reduced Inequalities), SDG11 Sustainable Cities and Communities, SDG12 (Responsible Consumption and Production) and SDG16 (Peace, Justice, and Strong Institutions) have negative impact, indicating that campaigns focused on these SDGs raise fewer funds.

Finally, some SDGs, such as SDG 1(No poverty), SDG 5(Gender Equality), SDG8 (Decent Work and Economic Growth), and SDG17 (Partnerships for the Goals) do not have a significant impact on the pledged amount. These findings imply that campaigns associated with these SDGs have no significance in terms of fundraising on Kickstarter platforms.

Overall, all our results show the same relationship as before, such as SDG 6, SDG 7, SDG 2, SDG3, SDG4, SDG8, SDG13, and SDG14. On the other hand, a few that were insignificant before are now becoming significant and vice versa, such as SDG 11, SDG12, SDG10, SDG15, and SDG 5. Only SDG 16, which was previously, was positive and significantly changed its relationship to negative, significantly, which is acceptable since the distribution of SDGS in the Text2SDG and SDGdetector are far varying, which can be seen from the descriptive statistic table on both packages. The rest of the regions and the categories of the campaign show the same result as the SDG detector package.

**Table 4.11. Robustness Regression Result of Backers with Overall SDGs**

| Ln_backers | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDGS | -.019 | .012 | -1.60 | .11 | -.042 | .004 | |
| CD | -.029 | 0 | -81.43 | 0 | -.03 | -.028 | *** |
| POS | .173 | .01 | 17.60 | 0 | .153 | .192 | *** |
| NEG | .11 | .015 | 7.27 | 0 | .08 | .139 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.171 | .011 | -15.61 | 0 | -.193 | -.15 | *** |
| Nordic Countries | -.045 | .045 | -1.00 | .319 | -.133 | .043 | |
| Southern Europe | -.387 | .028 | -13.81 | 0 | -.442 | -.332 | *** |
| Asia-Pacific | .121 | .017 | 6.95 | 0 | .087 | .155 | *** |
| Eastern Europe | -.557 | .051 | -10.89 | 0 | -.657 | -.457 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.05 | .02 | 51.60 | 0 | 1.01 | 1.09 | *** |
| Crafts | -.838 | .034 | -25.00 | 0 | -.903 | -.772 | *** |
| Dance | -.192 | .086 | -2.23 | .026 | -.362 | -.023 | ** |
| Design | .687 | .02 | 34.91 | 0 | .649 | .726 | *** |
| Fashion | -.218 | .024 | -9.20 | 0 | -.265 | -.172 | *** |
| Film & Videos | -.315 | .021 | -15.16 | 0 | -.356 | -.274 | *** |
| Food | -.364 | .026 | -13.93 | 0 | -.415 | -.312 | *** |
| Games | 1.041 | .018 | 58.95 | 0 | 1.007 | 1.076 | *** |
| Journalism | -.738 | .059 | -12.47 | 0 | -.854 | -.622 | *** |
| Music | .032 | .024 | 1.38 | .169 | -.014 | .078 | |
| Photography | -.005 | .04 | -0.13 | .895 | -.084 | .073 | |
| Publishing | .173 | .019 | 8.93 | 0 | .135 | .211 | *** |
| Technology | -.08 | .021 | -3.87 | 0 | -.121 | -.04 | *** |
| Theater | -.256 | .049 | -5.23 | 0 | -.352 | -.16 | *** |
| Constant | 4.251 | .018 | 230.30 | 0 | 4.215 | 4.288 | *** |
| | | | | | | | |
| Mean dependent var | 3.615 | | SD dependent var | | 1.845 | | |
| R-squared | 0.164 | | Number of obs | | 138393 | | |
| F-test | 1184.249 | | Prob > F | | 0.000 | | |
| Akaike crit. (AIC) | 537494.115 | | Bayesian crit. (BIC) | | 537730.223 | | |
| *** p<.01, ** p<.05, * p<.1 | | | | | | | |

Reference: Author's Own Work

Table 4.11 show the regression results of Text2SDG to check the robustness of the impact of SDG alignment on the backer. Result show that SDG alignment has no

significant impact on the number of backers in crowdfunding campaigns and does not give the robust result for this variable. The rest of the campaigns with positive and negative sentences in the description both give the same result as before by the SDGdetector SDG variables.

Backer involvement is also negatively impacted by campaign duration, with a coefficient of -0.029 ($p < 0.01$) indicating a 2.9% decrease every additional day. This shows that shorter campaigns may be more effective at attracting supporters, and when the SDGs are mentioned, it signals people to act in an emergency. Regional disparities are also significant, with Asia-Pacific campaigns receiving 12% more support than in North America, while Western Europe, Southern Europe, and Eastern Europe receive fewer backers.

Campaigns in this category also show the same relationship, such as comics, design, and games perform better than those in art, drawing more backers. On the other hand, the category Food and Fashion has fewer backers. These findings highlight that the backers with the overall SDG are not significant; the rest it is giving the same result as before, which is somehow acceptable because the distribution of SDG variables is different in both packages.

**Table 4.12. Robustness Regression Result of Pledged Amount with Individual SDGs**

| ln_backers | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDG1 | -.033 | .04 | -0.82 | .415 | -.112 | .046 | |
| SDG2 | -.44 | .149 | -2.95 | .003 | -.732 | -.148 | *** |
| SDG3 | -.338 | .042 | -8.10 | 0 | -.42 | -.257 | *** |
| SDG4 | -.458 | .086 | -5.31 | 0 | -.628 | -.289 | *** |
| SDG5 | .089 | .065 | 1.36 | .174 | -.039 | .217 | |
| SDG6 | .313 | .048 | 6.57 | 0 | .22 | .407 | *** |
| SDG7 | .532 | .056 | 9.56 | 0 | .422 | .641 | *** |
| SDG8 | -.309 | .21 | -1.47 | .141 | -.721 | .103 | |
| SDG9 | -.024 | .042 | -0.56 | .578 | -.107 | .06 | |
| SDG10 | -.055 | .091 | -0.61 | .545 | -.234 | .123 | |
| SDG11 | -.208 | .034 | -6.03 | 0 | -.275 | -.14 | *** |
| SDG12 | -.299 | .08 | -3.74 | 0 | -.455 | -.142 | *** |
| SDG13 | .148 | .074 | 1.99 | .047 | .002 | .294 | ** |
| SDG14 | .135 | .079 | 1.70 | .088 | -.02 | .291 | * |
| SDG15 | .118 | .063 | 1.87 | .061 | -.005 | .242 | * |
| SDG16 | -.225 | .062 | -3.65 | 0 | -.346 | -.104 | *** |
| SDG17 | -.572 | .374 | -1.53 | .126 | -1.304 | .16 | |
| CD | -.029 | 0 | -81.20 | 0 | -.029 | -.028 | *** |
| POS | .171 | .01 | 17.42 | 0 | .152 | .19 | *** |
| NEG | .109 | .015 | 7.22 | 0 | .079 | .138 | *** |
| REG: Base North | 0 | . | . | . | . | . | |
| Western Europe | -.173 | .011 | -15.76 | 0 | -.195 | -.152 | *** |
| Nordic Countries | -.051 | .045 | -1.14 | .252 | -.139 | .037 | |
| Southern Europe | -.389 | .028 | -13.91 | 0 | -.444 | -.334 | *** |
| Asia-Pacific | .112 | .017 | 6.48 | 0 | .078 | .146 | *** |
| Eastern Europe | -.556 | .051 | -10.88 | 0 | -.656 | -.456 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.052 | .02 | 51.69 | 0 | 1.012 | 1.092 | *** |
| Crafts | -.837 | .033 | -25.01 | 0 | -.903 | -.772 | *** |
| Dance | -.178 | .086 | -2.06 | .039 | -.347 | -.009 | ** |
| Design | .67 | .02 | 33.98 | 0 | .631 | .708 | *** |
| Fashion | -.22 | .024 | -9.27 | 0 | -.266 | -.173 | *** |
| Film & Videos | -.307 | .021 | -14.76 | 0 | -.348 | -.266 | *** |
| Food | -.349 | .026 | -13.31 | 0 | -.4 | -.297 | *** |
| Games | 1.039 | .018 | 58.88 | 0 | 1.005 | 1.074 | *** |
| Journalism | -.717 | .059 | -12.14 | 0 | -.833 | -.602 | *** |
| Music | .033 | .023 | 1.39 | .164 | -.013 | .079 | |
| Photography | -.004 | .04 | -0.10 | .917 | -.082 | .074 | |
| Publishing | .178 | .019 | 9.21 | 0 | .14 | .216 | *** |
| Technology | -.094 | .021 | -4.50 | 0 | -.134 | -.053 | *** |
| Theater | -.244 | .049 | -4.99 | 0 | -.34 | -.148 | *** |
| Constant | 4.253 | .018 | 230.48 | 0 | 4.216 | 4.289 | *** |
| Mean dependent var | 3.615 | | SD dependent var | | 1.845 | | |
| R-squared | 0.166 | | Number of obs | | 138393 | | |
| F-test | 708.319 | | Prob > F | | 0.000 | | |
| Akaike crit. (AIC) | 537200.655 | | Bayesian crit. (BIC) | | 537594.170 | | |
| *** p<.01, ** p<.05, * p<.1 | | | | | | | |

Reference: Author's Own Work

To check the individual SDG alignment impact on Backers, the model 4 regression has been done again for the Text2SDG package dataset, which is shown in Table 4.12 above. The result shows that SDG6 (Clean Water and Sanitation), SDG7 (Affordable and Clean Energy), SDG13 (Climate Action), and SDG14 (Life Below Water) and SDG15 (Life on Land) have a positive impact on the pledged amount. Suggesting that campaigns aligned with environmental, sustainability, and energy tend to perform significantly better in terms of attracting backers on the Kickstarter platform.

On the other hand, several SDGs on the Kickstarter platform show a negative impact on the pledged amount. Such as SDG2 (Zero Hunger), SDG3 (Good Health and Well-being), SDG4 (Quality Education), SDG12 (Responsible Consumption and Production) and SDG16 (Peace, Justice, and Strong Institutions) have negative impact, indicating that campaigns focused on these SDGs raise less backers.

Finally, some SDGs, such as SDG 1(No poverty), SDG 5(Gender Equality), SDG8 (Decent Work and Economic Growth), SDG9(Industry, Innovation, and Infrastructure), SDG10(Reduced Inequalities), SDG 11(Sustainable Cities and Communities) and SDG17 (Partnerships for the Goals) do not have a significant impact on the pledged amount. These findings imply that campaigns associated with these SDGs have no significance in terms of raising backers on Kickstarter platforms.

Overall, all our results show the same relationship as before, such as SDG 2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG13, SDG14, and SDG17. On the other hand, a few that were insignificant before are now becoming significant and vice versa, such as SDG 11, SDG12, SDG1, SDG15, and SDG7. Only SDG 16, which was previously, was positive and significantly changed its relationship to negative, significantly, which is acceptable since the distribution of SDGS in the Text2SDG and SDGdetector are far varying, which can be seen from the descriptive statistic table on both packages. The rest of the regions and the categories of the campaign show the same result as the SDGdetector package.

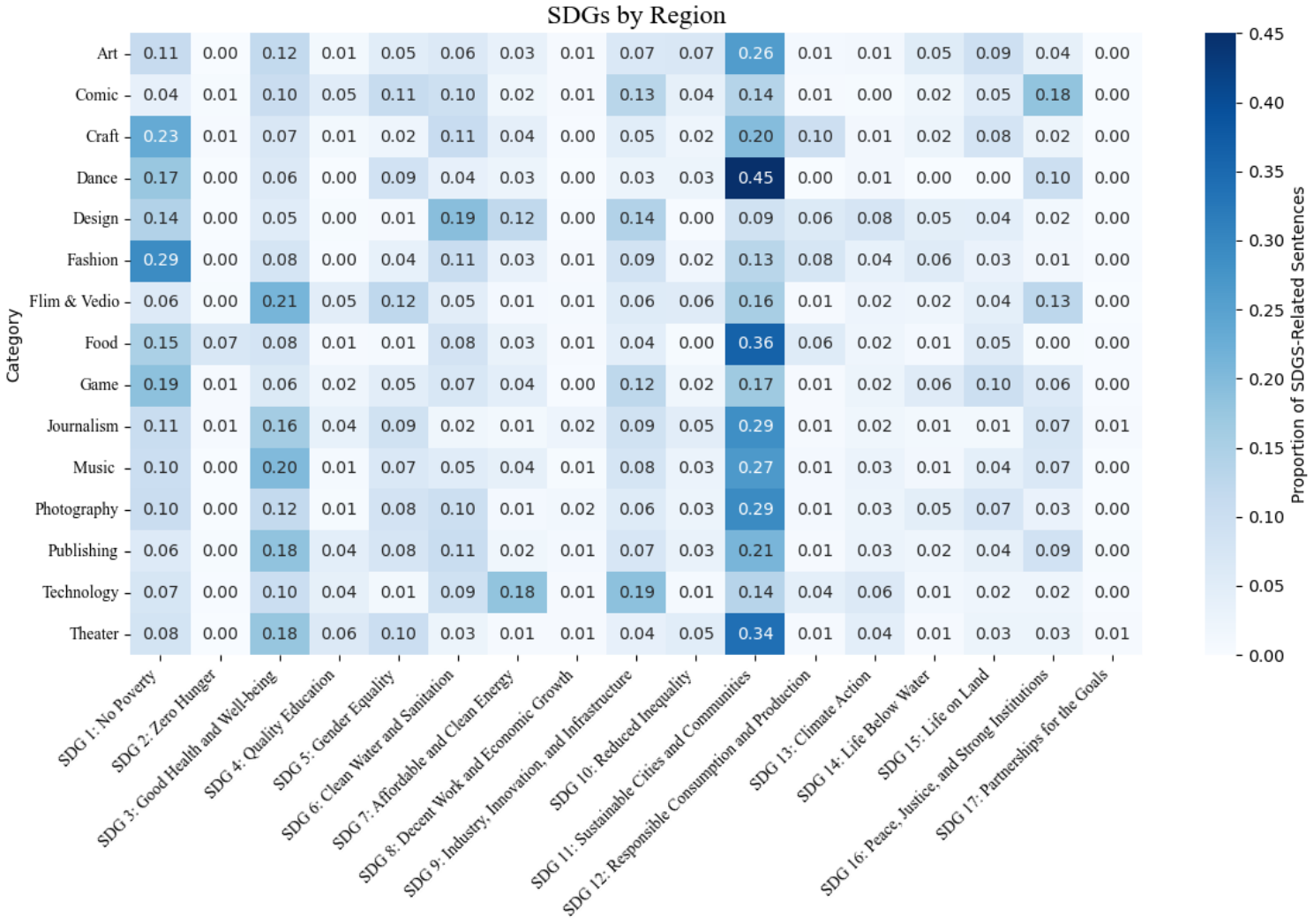



**Figure 4.5. Proportion of SDGs by Category**

The figure above shows the proportion of SDG-related statements across Kickstarter project categories. It illustrates the distribution of specific SDGs across the campaign categories. In the diagram, the darker blue box portion implies a larger number of SDGs found, whereas the lighter blue tones imply a smaller proportion. For example, the Food category contains the highest proportion of SDG-related programs associated with SDG7 (affordable and clean energy), at 18%, demonstrating the linkage of food-related programs with sustainability objectives. Similarly, the Design category demonstrates a good relationship with SDG6 (Clean Water and Sanitation), with 19 percent of the climate action belonging to the technology category.

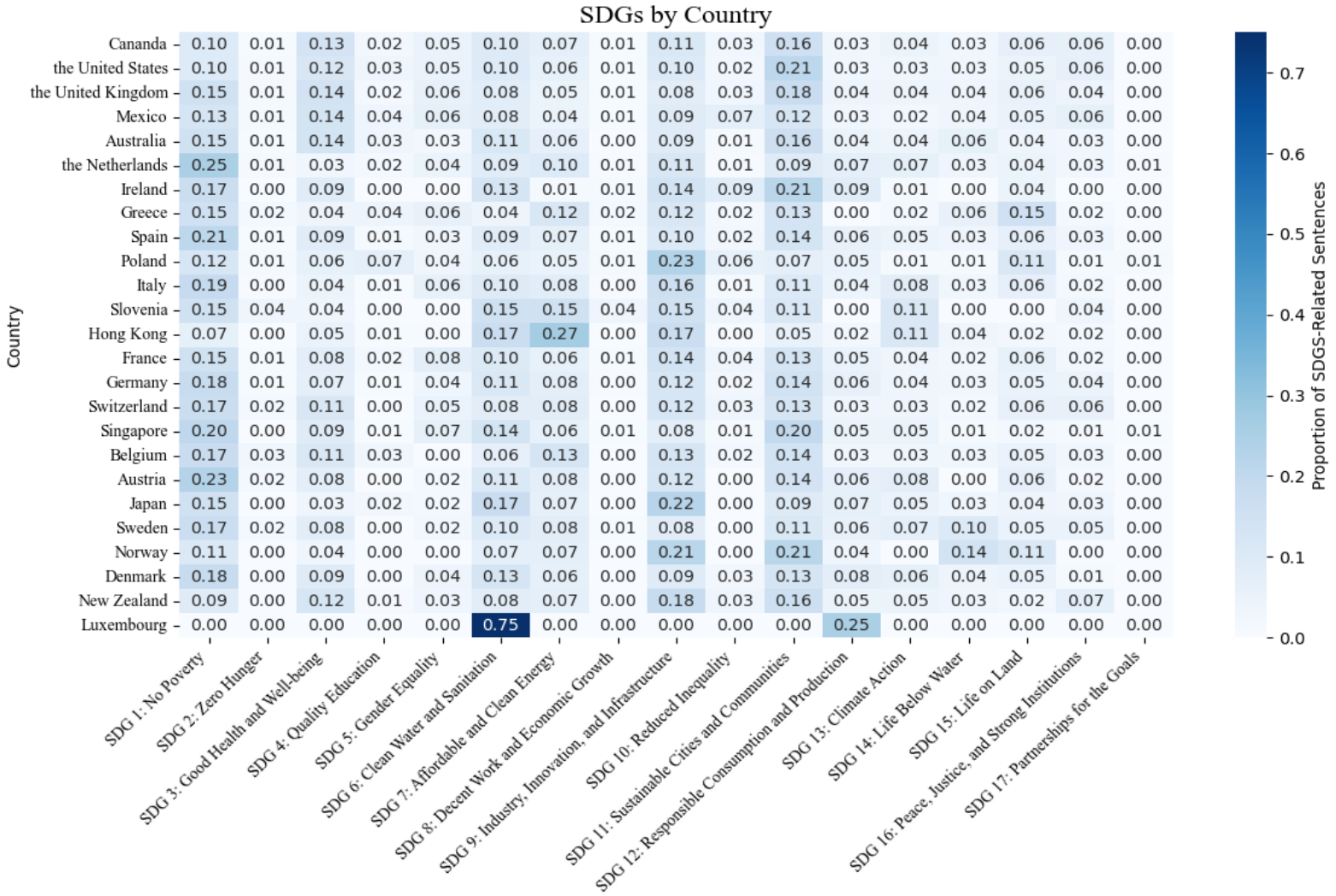



**Figure 4.6. Proportion of SDGs by Country**

The figure depicts the proportion of SDGs discovered through the SDG detector package across six different regions for crowdfunding campaigns... Asia-Pacific and Southern Europe form the diagram, showing that they are creating more campaigns related to SDG13 (Climate Action), making these regions more significant for environmentally related projects. Eastern Europe, Western Europe, and North America demonstrate differing levels of connection across multiple SDGs, but mostly focus on SDG 16(peace, justice, and strong institutions). Meanwhile, this analysis highlights the geographic differences in how crowdfunding campaigns address global sustainability difficulties, with some countries prioritizing climate action while others emphasizing responsible consumerism and social issues.

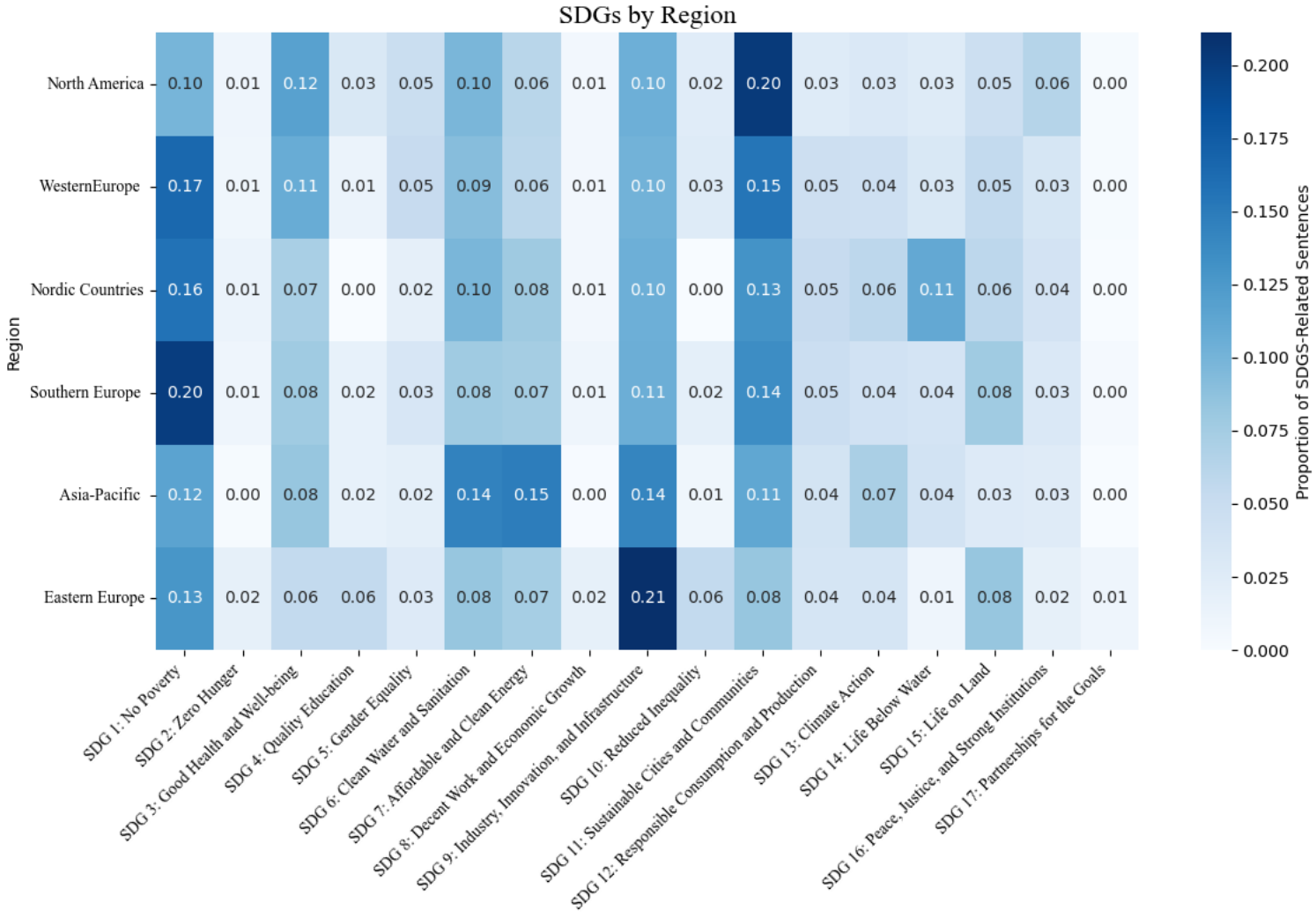



**Figure 4.7. Proportion of SDGs by Region**

The diagram illustrates the proportion of SDGs discovered through the SDG detector package across six different regions for crowdfunding campaigns of Kickstarter, showing us which region is creating which United Nations Sustainable Development Goals (SDGs) campaign. For example, Southern Europe from the diagram shows that they are creating more campaigns related to SDG13(No Poverty) and Eastern Europe on SDG 11(sustainable cities and communities). Meanwhile, this analysis highlights the geographic differences in how crowdfunding campaigns address global sustainability differences.

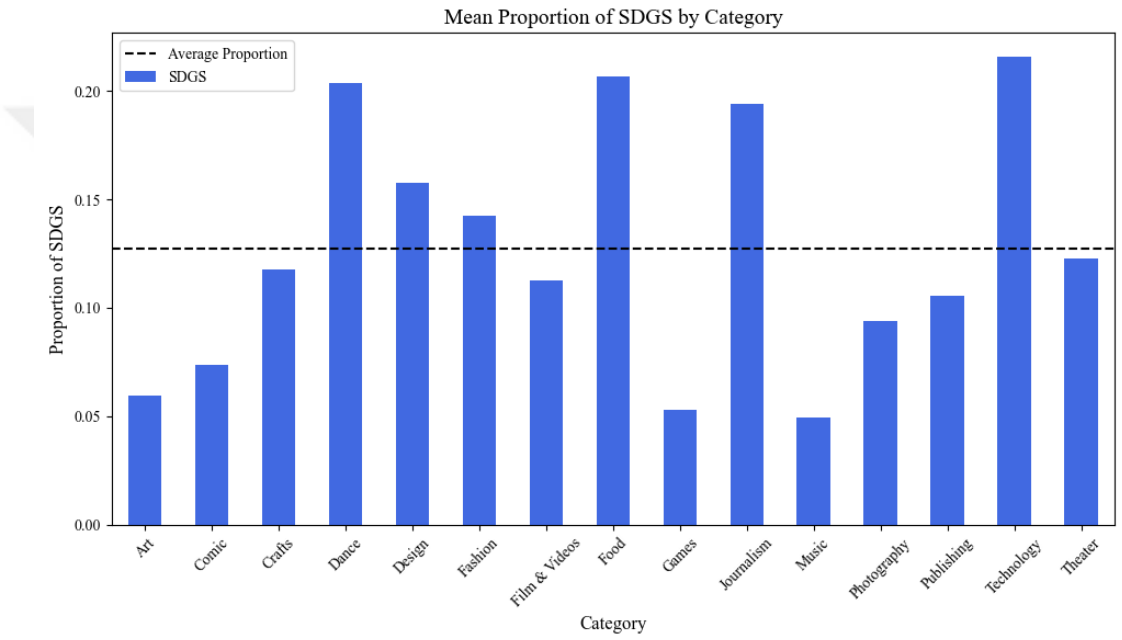



**Figure 4.8. Average Proportion of SDGs by Category**

The bar chart above shows the average proportion of SDGs across project categories of the Kickstarter platform campaign. In the figure, the x-axis indicates several categories, such as Technology, Comics, Arts, Dance, and others, while the y-axis shows the proportion of SDG-related sentences in the description of campaigns within each category. The bars in the figure depict the proportion of SDGs in each category, and the horizontal line represents the average proportion of SDGs across all categories.

The graph indicates that on the Kickstarter platform, categories such as technology, Food, and Film & Videos have a larger proportion of SDG-related content. Especially with food having the highest means, showing dedicated support for global concerns such as hunger and health. On the other hand, categories such as theater, arts, and

music have smaller proportions, indicating a reduced emphasis on sustainability. The horizontal dotted line shows that food, technology, and dance have performed well, the categories such as Art and Theater.

# CHAPTER V

# CONCLUSION

This chapter aims to provide a detailed conclusion, and future recommendations based on the study findings, which measured the relationship between Sustainable Development Goal (SDG) alignment and the performance of crowdfunding projects on the Kickstarter platform. The goal of this chapter is to summarize the significant conclusions gained from the empirical analysis, observe the significance of the study findings, and provide a prospective area for further research.

Here in this chapter, this study will focus on how the development of SDGs in crowdfunding campaign descriptions influences the amount pledged and the number of backers. It will also discuss implications for campaign creators, crowdfunding platforms, and regulators, as well as practical guidelines for how to strategically use SDG alignment to improve crowdfunding success.

In the end, this section will conclude with a discussion of the study limitations and recommendations for future research that may build on the findings by investigating new aspects of SDG integration within the crowdfunding ecosystem.

## 5.1. Conclusion

This study aims to explain the importance of crowdfunding in advancing the United Nations sustainable development goals (SDGs). Utilizing a dataset of 138,393 Kickstarter campaigns launched between 2020 to 2024, this research provided significant insights into the relationship between SDG alignment in campaign descriptions and crowdfunding success, measured by both pledged amounts and number of backers.

The findings demonstrate that SDG alignment has positive and significant impact on crowdfunding success, especially in terms of increasing the pledged amount. Campaigns that highlight sustainability and social responsibility in their campaign description do better compared to those that do not use them. Notably, SDGs such as Clean Water and Sanitation (SDG6), Climate Action (SDG13), and Life Below Water (SDG14) were found to have a favorable impact on pledge amounts and backer numbers. But on the other hand, if the campaign used SDGS such as poverty (SDG1), hunger (SDG2), health (SDG3), and quality education (SDG4), then there is a high chance they will receive less pledged amount and fewer Backers. This indicates a shift in donor attention toward environmental and social sustainability rather than fundamental humanitarian needs.

This study's regression model also supports the existing literature findings that campaigns related to SDGs' success rate are decreasing as the duration increases, since the SDGs show the act of emergency and are important to the backers. This means the study campaign duration is negatively affecting the campaign success variables. In addition to that, positive and negative sentiment in descriptions is also positively related to the success of the campaign, indicating that the campaign used emotional words that could have been changed to increase the success rate. Furthermore, specific project categories such as Comics, Design, Games, and Technology improved campaign performance than Arts and a few others. Regionally, North America has the largest pledge amount, and Asia-Pacific showed significant interest in the technology issue. These study findings suggest that to maximize crowdfunding success, aligning campaigns with SDGs, setting a shorter duration, and adding sentiments are crucial.

### 5.2. Future Recommendations and Suggestions

This study attempted to determine the relationship between the Kickstarter crowdfunding platform’s campaign success and the United Nations Sustainable Development Goals (SDGs) on campaign success. The analysis discovered that SDG alignment has a positive impact on campaign success, meaning framing out campaign with sustainability issues will increase out chance of success. Especially on the environmental sustainability goals such as, SDGs 7 (Affordable and Clean Energy), SDG 6 (Clean Water and Sanitation), and SDG 13 (Climate Action) had a significantly

greater impact on crowdfunding success. Based on these findings, we propose the following recommendations for further research and practice.

This study explored the Kickstarter platform, and few other studies have explored Indiegogo and Kiva platform, but there are many major crowdfunding platforms, where it's not certain how framing the campaign with SDGs will impact the success of the campaign. Future studies should explore the impact of SDG alignment on crowdfunding success across other platforms such as GoFundMe, which have a different model. To check the consistency of the positive impact results found on the Kickstarter platform, a comparative study across different crowdfunding models is needed. Such research could provide a broader perspective on how SDGs affect crowdfunding success across multiple platforms.

This study found that there are geographical differences in the success of SDG-aligned campaigns, particularly in the Asia-Pacific region. More research should investigate the cultural, socioeconomic, and regional variables that drive this difference, which will assist campaign makers in understanding how to customize their SDG messaging for diverse geographical audiences. Finding answers to why certain SDGs function better in specific places may provide insights into developing region-specific crowdfunding tactics.

Further in this study, we found that there is a positive impact of environmental SDGs, but social SDGs such as SDG1 (No Poverty) and SDG3 (Good Health and Well-being) have a negative impact on crowding success. Future research should focus on why social SDGs are less effective in crowdfunding efforts and how they might be communicated better to gain support. This will help social entrepreneurs and NGOs. Understanding the challenges that social SDG initiatives encounter could help develop strategies for addressing these concerns.

In this study, the researchers used the built-in SDGdetector and Text2SDG packages in the R programming language to determine the SDG-related sentences from the crowdfunding campaign's description. Although these techniques have proven useful with 75 percent accuracy, future studies could improve the accuracy and depth of the SDG alignment analysis by investigating alternative methods. Creating unique Natural

Language Processing (NLP) approaches or algorithms customized to the peculiarities of crowdfunding campaign descriptions could yield more exact results.

Finally, this study model has explained 10% to 15 % of the overall relationship between crowdfunding and SDGs, due to the limited availability of variables in the dataset. For future research, it is suggested to look for the relationship between the SDGs and crowdfunding by adding the other variables such as the project quality and other determinants, which the theoretical model is explaining.

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# APPENDICES

## APPENDIX A

## REGRESSIONS

### Table A.1. Sample Data Regression Pledged with Overall SDG

| Log Pledged | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDGS | .193 | .036 | 5.30 | 0 | .122 | .265 | *** |
| CD | -.044 | .001 | -53.04 | 0 | -.046 | -.043 | *** |
| POS | .362 | .023 | 15.66 | 0 | .317 | .408 | *** |
| NEG | .096 | .035 | 2.72 | .007 | .027 | .165 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.264 | .025 | -10.41 | 0 | -.313 | -.214 | *** |
| Nordic Countries | .127 | .098 | 1.29 | .197 | -.066 | .32 | |
| Southern Europe | -.702 | .066 | -10.61 | 0 | -.832 | -.572 | *** |
| Asia-Pacific | .161 | .042 | 3.86 | 0 | .079 | .243 | *** |
| Eastern Europe | -.411 | .154 | -2.67 | .007 | -.713 | -.11 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.073 | .049 | 21.79 | 0 | .977 | 1.17 | *** |
| Crafts | 1.002 | .077 | -13.09 | 0 | -1.152 | -.852 | *** |
| Dance | .39 | .216 | 1.81 | .071 | -.033 | .813 | * |
| Design | 1.327 | .045 | 29.78 | 0 | 1.239 | 1.414 | *** |
| Fashion | -.249 | .052 | -4.80 | 0 | -.35 | -.147 | *** |
| Film & Videos | -.078 | .049 | -1.59 | .111 | -.174 | .018 | |
| Food | -.06 | .059 | -1.00 | .316 | -.176 | .057 | |
| Games | 1.254 | .039 | 31.90 | 0 | 1.177 | 1.331 | *** |
| Journalism | -1.28 | .131 | -9.74 | 0 | -1.538 | -1.022 | *** |
| Music | .208 | .054 | 3.87 | 0 | .103 | .313 | *** |
| Photography | .432 | .095 | 4.54 | 0 | .245 | .618 | *** |
| Publishing | .134 | .045 | 2.96 | .003 | .045 | .222 | *** |
| Technology | -.032 | .047 | -0.69 | .49 | -.123 | .059 | |
| Theater | .008 | .134 | 0.06 | .95 | -.254 | .271 | |
| Constant | 8.108 | .042 | 194.24 | 0 | 8.026 | 8.189 | *** |

| | | | |
|---|---|---|---|
| Mean dependent var | 7.139 | SD dependent var | 2.892 |
| R-squared | 0.113 | Number of obs | 65705 |
| F-test | 364.945 | Prob > F | 0.000 |
| Akaike crit. (AIC) | 318169.806 | Bayesian crit. (BIC) | 318388.036 |

**** p<.01, ** p<.05, * p<.1*

Source: Author Own Work

## Table A.2. Sample Data Regression Backers with SDG

| Log Backers | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDGS | .109 | .023 | 4.79 | 0 | .064 | .153 | *** |
| CD | -.03 | .001 | -58.25 | 0 | -.031 | -.029 | *** |
| POS | .211 | .014 | 14.66 | 0 | .182 | .239 | *** |
| NEG | .101 | .022 | 4.64 | 0 | .059 | .144 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.181 | .016 | -11.52 | 0 | -.212 | -.15 | *** |
| Nordic Countries | .019 | .061 | 0.32 | .75 | -.1 | .139 | |
| Southern Europe | -.421 | .041 | -10.25 | 0 | -.502 | -.341 | *** |
| Asia-Pacific | .044 | .026 | 1.70 | .09 | -.007 | .095 | * |
| Eastern Europe | -.272 | .096 | -2.85 | .004 | -.459 | -.085 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | .997 | .031 | 32.61 | 0 | .937 | 1.057 | *** |
| Crafts | -.722 | .048 | -15.19 | 0 | -.815 | -.629 | *** |
| Dance | .032 | .134 | 0.24 | .809 | -.23 | .295 | |
| Design | .628 | .028 | 22.72 | 0 | .574 | .683 | *** |
| Fashion | -.254 | .032 | -7.89 | 0 | -.317 | -.191 | *** |
| Film & Videos | -.328 | .03 | -10.78 | 0 | -.387 | -.268 | *** |
| Food | -.261 | .037 | -7.06 | 0 | -.333 | -.188 | *** |
| Games | 1.12 | .024 | 45.87 | 0 | 1.072 | 1.167 | *** |
| Journalism | -.683 | .082 | -8.36 | 0 | -.843 | -.523 | *** |
| Music | .05 | .033 | 1.50 | .133 | -.015 | .115 | |
| Photography | .114 | .059 | 1.92 | .055 | -.002 | .229 | * |
| Publishing | .127 | .028 | 4.53 | 0 | .072 | .182 | *** |
| Technology | -.202 | .029 | -7.00 | 0 | -.259 | -.146 | *** |
| Theater | -.263 | .083 | -3.17 | .002 | -.426 | -.101 | *** |
| Constant | 4.334 | .026 | 167.22 | 0 | 4.283 | 4.384 | *** |

| | | | |
|---|---|---|---|
| Mean dependent var | 3.638 | SD dependent var | 1.855 |
| R-squared | 0.169 | Number of obs | 65705 |
| F-test | 581.714 | Prob > F | 0.000 |
| Akaike crit. (AIC) | 255536.568 | Bayesian crit. (BIC) | 255754.798 |

**** p<.01, ** p<.05, * p<.1*

## Table A.3. Sample Data Regression Pledged with Individual SDG I

| Log pledged | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDG1 | -1.041 | .611 | -1.70 | .088 | -2.239 | .156 | * |
| SDG2 | -.656 | .225 | -2.91 | .004 | -1.098 | -.214 | *** |
| SDG3 | .06 | .14 | 0.43 | .668 | -.214 | .334 | |
| SDG4 | .095 | .183 | 0.52 | .605 | -.264 | .453 | |
| SDG5 | .069 | .157 | 0.44 | .662 | -.239 | .377 | |
| SDG6 | .923 | .253 | 3.65 | 0 | .427 | 1.419 | *** |
| SDG7 | .216 | .234 | 0.92 | .357 | -.243 | .675 | |
| SDG8 | .164 | .229 | 0.71 | .475 | -.286 | .613 | |
| SDG9 | .343 | .298 | 1.15 | .25 | -.242 | .927 | |
| SDG10 | -.307 | .275 | -1.12 | .264 | -.846 | .232 | |
| SDG11 | -.025 | .192 | -0.13 | .895 | -.401 | .351 | |
| SDG12 | .202 | .143 | 1.41 | .157 | -.078 | .483 | |
| SDG13 | .442 | .086 | 5.13 | 0 | .273 | .611 | *** |
| SDG14 | .941 | .218 | 4.32 | 0 | .514 | 1.367 | *** |
| SDG15 | .027 | .12 | 0.23 | .819 | -.207 | .262 | |
| SDG16 | .151 | .104 | 1.45 | .147 | -.053 | .355 | |
| SDG17 | -.719 | .756 | -0.95 | .342 | -2.201 | .763 | |
| CD | -.044 | .001 | -53.06 | 0 | -.046 | -.043 | *** |
| POS | .363 | .023 | 15.69 | 0 | .318 | .408 | *** |
| NEG | .097 | .035 | 2.76 | .006 | .028 | .166 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.266 | .025 | -10.49 | 0 | -.315 | -.216 | *** |
| Nordic Countries | .126 | .098 | 1.28 | .2 | -.067 | .319 | |
| Southern Europe | -.704 | .066 | -10.65 | 0 | -.834 | -.575 | *** |
| Asia-Pacific | .16 | .042 | 3.83 | 0 | .078 | .242 | *** |
| Eastern Europe | -.417 | .154 | -2.71 | .007 | -.718 | -.116 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.075 | .049 | 21.82 | 0 | .978 | 1.171 | *** |
| Crafts | 1.005 | .077 | -13.12 | 0 | -1.155 | -.855 | *** |
| Dance | .404 | .216 | 1.88 | .061 | -.018 | .827 | * |
| Design | 1.317 | .045 | 29.53 | 0 | 1.23 | 1.405 | *** |
| Fashion | -.255 | .052 | -4.92 | 0 | -.357 | -.153 | *** |
| Film & Videos | -.076 | .049 | -1.55 | .122 | -.172 | .02 | |
| Food | -.03 | .06 | -0.50 | .614 | -.148 | .087 | |
| Games | 1.254 | .039 | 31.89 | 0 | 1.176 | 1.331 | *** |
| Journalism | 1.274 | .131 | -9.69 | 0 | -1.532 | -1.017 | *** |
| Music | .207 | .054 | 3.85 | 0 | .101 | .312 | *** |
| Photography | .43 | .095 | 4.53 | 0 | .244 | .617 | *** |
| Publishing | .137 | .045 | 3.04 | .002 | .049 | .226 | *** |
| Technology | -.037 | .047 | -0.79 | .43 | -.128 | .055 | |
| Theater | .012 | .134 | 0.09 | .929 | -.25 | .274 | |
| Constant | 8.11 | .042 | 194.29 | 0 | 8.028 | 8.191 | *** |

| | | | |
|---|---|---|---|
| Mean dependent var | 7.139 | SD dependent var | 2.892 |
| R-squared | 0.114 | Number of obs | 65705 |
| F-test | 216.865 | Prob > F | 0.000 |
| Akaike crit. (AIC) | 318143.218 | Bayesian crit. (BIC) | 318506.936 |

*** p<.01, ** p<.05, * p<.1

## Table A.4. Sample Data Regression Pledged with Individual SDG II

| Log backers | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| SDG1 | -.58 | .379 | -1.53 | .126 | -1.324 | .163 | |
| SDG2 | -.398 | .14 | -2.84 | .004 | -.672 | -.124 | *** |
| SDG3 | -.01 | .087 | -0.11 | .91 | -.18 | .16 | |
| SDG4 | -.069 | .114 | -0.61 | .543 | -.292 | .154 | |
| SDG5 | .015 | .098 | 0.15 | .878 | -.176 | .206 | |
| SDG6 | .661 | .157 | 4.20 | 0 | .353 | .969 | *** |
| SDG7 | .174 | .145 | 1.20 | .232 | -.111 | .459 | |
| SDG8 | .033 | .142 | 0.23 | .815 | -.246 | .312 | |
| SDG9 | .068 | .185 | 0.37 | .715 | -.295 | .431 | |
| SDG10 | -.202 | .171 | -1.18 | .237 | -.536 | .133 | |
| SDG11 | -.09 | .119 | -0.75 | .451 | -.323 | .144 | |
| SDG12 | .086 | .089 | 0.96 | .336 | -.089 | .26 | |
| SDG13 | .222 | .054 | 4.15 | 0 | .117 | .327 | *** |
| SDG14 | .507 | .135 | 3.75 | 0 | .242 | .772 | *** |
| SDG15 | .013 | .074 | 0.18 | .86 | -.133 | .159 | |
| SDG16 | .27 | .065 | 4.18 | 0 | .143 | .396 | *** |
| SDG17 | -.41 | .469 | -0.87 | .382 | -1.33 | .51 | |
| CD | -.03 | .001 | -58.28 | 0 | -.031 | -.029 | *** |
| POS | .211 | .014 | 14.72 | 0 | .183 | .239 | *** |
| NEG | .102 | .022 | 4.69 | 0 | .06 | .145 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.182 | .016 | -11.57 | 0 | -.213 | -.151 | *** |
| Nordic Countries | .019 | .061 | 0.32 | .751 | -.1 | .139 | |
| Southern Europe | -.422 | .041 | -10.27 | 0 | -.502 | -.341 | *** |
| Asia-Pacific | .044 | .026 | 1.68 | .092 | -.007 | .095 | * |
| Eastern Europe | -.277 | .095 | -2.90 | .004 | -.464 | -.09 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | .997 | .031 | 32.59 | 0 | .937 | 1.057 | *** |
| Crafts | -.721 | .048 | -15.16 | 0 | -.814 | -.628 | *** |
| Dance | .041 | .134 | 0.31 | .76 | -.221 | .303 | |
| Design | .625 | .028 | 22.56 | 0 | .571 | .679 | *** |
| Fashion | -.257 | .032 | -7.98 | 0 | -.32 | -.194 | *** |
| Film & Videos | -.327 | .03 | -10.75 | 0 | -.386 | -.267 | *** |
| Food | -.241 | .037 | -6.48 | 0 | -.314 | -.168 | *** |
| Games | 1.12 | .024 | 45.90 | 0 | 1.072 | 1.168 | *** |
| Journalism | -.679 | .082 | -8.32 | 0 | -.839 | -.519 | *** |
| Music | .05 | .033 | 1.51 | .131 | -.015 | .116 | |
| Photography | .113 | .059 | 1.91 | .057 | -.003 | .228 | * |
| Publishing | .13 | .028 | 4.64 | 0 | .075 | .185 | *** |
| Technology | -.203 | .029 | -7.00 | 0 | -.259 | -.146 | *** |
| Theater | -.265 | .083 | -3.19 | .001 | -.428 | -.102 | *** |
| Constant | 4.333 | .026 | 167.22 | 0 | 4.283 | 4.384 | *** |

| | | | |
|---|---|---|---|
| Mean dependent var | 3.638 | SD dependent var | 1.855 |
| R-squared | 0.170 | Number of obs | 65705 |
| F-test | 345.005 | Prob > F | 0.000 |
| Akaike crit. (AIC) | 255502.899 | Bayesian crit. (BIC) | 255866.616 |

**** p<.01, ** p<.05, * p<.1*

APPENDIX B

CATEGORIES AND REGIONS

**Table B.1. Distribution of Pledged Amount for Different Categories and Region**

| | North America | Western Europe | Nordic Countries | Southern Europe | Asia-Pacific | Eastern Europe | Grand Total |
|---|---|---|---|---|---|---|---|
| Art | 885344 | 350080 | 23756 | 43895 | 83670 | 4050 | 1390795 |
| Comic | 2387220 | 434175 | 22516 | 7192 | 46871 | 20081 | 2918055 |
| Crafts | 81222 | 30485 | 1689 | 2095 | 15531 | 292 | 131314 |
| Dance | 12858 | 2944 | 64 | 386 | 563 | 46 | 16861 |
| Design | 3699133 | 831685 | 27724 | 60375 | 711964 | 15283 | 5346164 |
| Fashion | 466651 | 129844 | 7341 | 31298 | 45289 | 695 | 681118 |
| Film & | 738257 | 222789 | 16108 | 12485 | 49383 | 520 | 1039542 |
| Food | 334489 | 83097 | 4479 | 2309 | 14907 | 73 | 439354 |
| Games | 7910149 | 2718119 | 203670 | 498753 | 680214 | 227136 | 12238041 |
| Journalism | 43253 | 12508 | 2903 | 398 | 1400 | 11 | 60473 |
| Music | 482562 | 120676 | 8386 | 4660 | 22472 | 1014 | 639770 |
| Photography | 73038 | 77913 | 3270 | 2008 | 12880 | 835 | 169944 |
| Publishing | 1701341 | 401802 | 18861 | 15280 | 74064 | 2453 | 2213801 |
| Technology | 1882130 | 332823 | 11946 | 19122 | 695468 | 43598 | 2985087 |
| Theater | 47689 | 12639 | 421 | 486 | 588 | 12 | 61835 |
| Grand Total | 20745336 | 5761579 | 353134 | 700742 | 2455264 | 316099 | 30332154 |

**Table B.2. Distribution of Backers for Different Project Categories and Regions**

| | North America | Western Europe | Nordic Countries | Southern Europe | Asia-Pacific | Eastern Europe | Grand Total |
|---|---|---|---|---|---|---|---|
| Art | 62178954.7 | 22308746.3 | 1624679.79 | 2923739.192 | 6988578.162 | 314302.5442 | 96339000.68 |
| Comic | 145959296 | 22459899.2 | 1245498.92 | 293720.6528 | 1896245.091 | 1017227.143 | 17287188 7.4 |
| Crafts | 9261196.73 | 2261743.74 | 97867.5051 | 234694.2509 | 1893677.209 | 31413.43708 | 13780592.88 |
| Dance | 1393784.37 | 338332.298 | 3762.99965 | 25036.88329 | 55969.70122 | 2083.860473 | 1818970.113 |
| Design | 463514903 | 103971517 | 4994415.85 | 9155530.938 | 94631881.27 | 1931442.303 | 67819969 0.3 |
| Fashion | 45136740 | 14082155.9 | 1144624.37 | 3894598.838 | 4973142.884 | 79163.94685 | 69310425.94 |
| Film & Videos | 89512512.4 | 24008539.3 | 1405272.05 | 991486.0375 | 4766350.591 | 107583.2669 | 120791743.6 |
| Food | 39429103.9 | 14007559.5 | 300771.846 | 157941.9979 | 1160698.553 | 8160.434674 | 55064236.2 |
| Games | 633633269 | 194484846 | 16281058.2 | 32403766.23 | 55974295.46 | 23408877.54 | 956186112.4 |
| Journalism | 3248217.54 | 958381.518 | 179018.897 | 24258.02699 | 57418.15878 | 49.08568653 | 4467343.228 |
| Music | 43662973 | 8625349.61 | 474679.362 | 282992.8207 | 2215583.803 | 93885.4978 | 55355464.05 |
| Photography | 8400147.22 | 7548420.03 | 213939.505 | 188997.4034 | 1274198.801 | 63463.47003 | 17689166.43 |
| Publishing | 169377987 | 27493160.8 | 1068446.07 | 968929.7008 | 5057517.782 | 131343.3144 | 204097384.8 |
| Technology | 455397077 | 64100156.9 | 2479794.89 | 3122595.044 | 180390053.3 | 9236794.742 | 714726471.4 |
| Theater | 4898898.41 | 1107433.25 | 28903.7718 | 46152.78174 | 56188.62531 | 235.6051218 | 6137812.451 |
| Grand Total | 2175005060 | 507756241 | 31542734 | 54714440.79 | 361391799.3 | 36426026.19 | 3166836302 |

APPENDIX C

QUANTILE REGRESSIONS

## Table C.1. Quartile Regression SDG with Pledged

| Log pledged | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| **Quartile 1** | | | | | | | |
| SDGS | .18 | .05 | 3.58 | 0 | .081 | .278 | *** |
| CD | -.056 | .001 | -92.23 | 0 | -.058 | -.055 | *** |
| POS | .33 | .026 | 12.49 | 0 | .278 | .381 | *** |
| NEG | .164 | .028 | 5.96 | 0 | .11 | .219 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.274 | .033 | -8.39 | 0 | -.338 | -.21 | *** |
| Nordic Countries | -.066 | .111 | -0.60 | .55 | -.283 | .151 | |
| Southern Europe | -.897 | .102 | -8.81 | 0 | -1.097 | -.698 | *** |
| Asia-Pacific | .28 | .041 | 6.83 | 0 | .2 | .361 | *** |
| Eastern Europe | -.847 | .141 | -5.99 | 0 | -1.124 | -.57 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.356 | .046 | 29.50 | 0 | 1.266 | 1.446 | *** |
| Crafts | -1.617 | .112 | -14.38 | 0 | -1.837 | -1.396 | *** |
| Dance | .103 | .293 | 0.35 | .726 | -.472 | .677 | |
| Design | 1.022 | .035 | 28.95 | 0 | .953 | 1.091 | *** |
| Fashion | -.378 | .038 | -10.02 | 0 | -.452 | -.304 | *** |
| Film & Videos | -.315 | .046 | -6.91 | 0 | -.404 | -.225 | *** |
| Food | -.903 | .073 | -12.40 | 0 | -1.046 | -.761 | *** |
| Games | .805 | .03 | 27.08 | 0 | .747 | .863 | *** |
| Journalism | -2.992 | .136 | -21.96 | 0 | -3.259 | -2.724 | *** |
| Music | .044 | .085 | 0.52 | .602 | -.123 | .211 | |
| Photography | -.103 | .108 | -0.95 | .34 | -.315 | .109 | |

**Table C.2. (cont.)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Publishing | .146 | .037 | 3.93 | 0 | .073 | .219 | *** |
| Technology | -1.239 | .083 | -14.92 | 0 | -1.401 | -1.076 | *** |
| Theater | .321 | .094 | 3.40 | .001 | .136 | .505 | *** |
| Constant | 7.386 | .042 | 177.68 | 0 | 7.304 | 7.467 | *** |
| **Quartile 2** | | | | | | | |
| SDGS | .14 | .029 | 4.92 | 0 | .084 | .196 | *** |
| CD | -.037 | .001 | -50.88 | 0 | -.038 | -.035 | *** |
| POS | .281 | .016 | 17.60 | 0 | .25 | .312 | *** |
| NEG | .051 | .027 | 1.87 | .061 | -.002 | .104 | * |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.263 | .02 | -12.97 | 0 | -.303 | -.223 | *** |
| Nordic Countries | -.107 | .069 | -1.56 | .118 | -.241 | .027 | |
| Southern Europe | -.692 | .048 | -14.56 | 0 | -.785 | -.599 | *** |
| Asia-Pacific | .271 | .03 | 9.04 | 0 | .212 | .33 | *** |
| Eastern Europe | -.825 | .077 | -10.67 | 0 | -.977 | -.674 | *** |
| CAT: Base | 0 | . | . | . | . | . | |
| Comic | 1.02 | .025 | 40.43 | 0 | .97 | 1.069 | *** |
| Crafts | -1.116 | .055 | -20.45 | 0 | -1.223 | -1.009 | *** |
| Dance | .506 | .203 | 2.50 | .013 | .109 | .904 | ** |
| Design | 1.478 | .029 | 51.28 | 0 | 1.422 | 1.535 | *** |
| Fashion | .096 | .032 | 3.03 | .002 | .034 | .159 | *** |
| Film & Videos | .537 | .034 | 15.87 | 0 | .471 | .603 | *** |
| Food | -.145 | .047 | -3.07 | .002 | -.238 | -.053 | *** |
| Games | 1.104 | .021 | 52.07 | 0 | 1.062 | 1.145 | *** |
| Journalism | -1.645 | .153 | -10.76 | 0 | -1.944 | -1.345 | *** |
| Music | .845 | .029 | 29.24 | 0 | .789 | .902 | *** |
| Photography | .47 | .088 | 5.36 | 0 | .298 | .642 | *** |
| Publishing | .58 | .024 | 23.75 | 0 | .532 | .628 | *** |
| Technology | .3 | .061 | 4.91 | 0 | .18 | .42 | *** |
| Theater | .383 | .088 | 4.37 | 0 | .212 | .555 | *** |
| Constant | 8.177 | .025 | 330.82 | 0 | 8.129 | 8.225 | *** |

## Table C.2. (cont.)

| **Quartile 3** | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDGS | .095 | .025 | 3.72 | 0 | .045 | .145 | *** |
| CD | -.023 | .001 | -36.90 | 0 | -.024 | -.021 | *** |
| POS | .221 | .018 | 12.54 | 0 | .187 | .256 | *** |
| NEG | -.006 | .029 | -0.20 | .841 | -.063 | .051 | |
| REG: Base | 0 | . | . | . | . | . | |
| Western Europe | -.286 | .018 | -16.21 | 0 | -.32 | -.251 | *** |
| Nordic Countries | -.145 | .067 | -2.18 | .03 | -.275 | -.014 | ** |
| Southern Europe | -.522 | .054 | -9.72 | 0 | -.627 | -.416 | *** |
| Asia-Pacific | .102 | .034 | 3.00 | .003 | .035 | .168 | *** |
| Eastern Europe | -.816 | .109 | -7.50 | 0 | -1.029 | -.603 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | .7 | .024 | 28.60 | 0 | .652 | .748 | *** |
| Crafts | -.893 | .052 | -17.10 | 0 | -.995 | -.791 | *** |
| Dance | .379 | .097 | 3.91 | 0 | .189 | .568 | *** |
| Design | 1.772 | .038 | 46.94 | 0 | 1.698 | 1.845 | *** |
| Fashion | .291 | .035 | 8.22 | 0 | .222 | .361 | *** |
| Film & Videos | .616 | .03 | 20.48 | 0 | .557 | .675 | *** |
| Food | .498 | .054 | 9.22 | 0 | .392 | .603 | *** |
| Games | 1.249 | .023 | 53.23 | 0 | 1.203 | 1.295 | *** |
| Journalism | -.511 | .181 | -2.82 | .005 | -.865 | -.156 | *** |
| Music | .628 | .025 | 24.70 | 0 | .578 | .678 | *** |
| Photography | .822 | .059 | 13.90 | 0 | .706 | .937 | *** |
| Publishing | .443 | .023 | 19.07 | 0 | .397 | .488 | *** |
| Technology | 1.314 | .034 | 38.31 | 0 | 1.247 | 1.381 | *** |
| Theater | .18 | .068 | 2.66 | .008 | .047 | .313 | *** |
| Constant | 9.069 | .021 | 431.18 | 0 | 9.028 | 9.11 | *** |
| | | | | | | | |
| Mean dependent var | | 7.233 | | SD dependent var | | 2.881 | |
| *** p<.01, ** p<.05, * p<.1 | | | | | | | |
| | | | | | | | |

Reference: Author own calculation by using Stata

## Table C.2. Quartile Regression SDG with Backers

| Log backers | Coef. | St. Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| **Quartile 1** | | | | | | | |
| SDGS | .066 | .024 | 2.74 | .006 | .019 | .114 | *** |
| CD | -.032 | 0 | -89.80 | 0 | -.033 | -.031 | *** |
| POS | .14 | .013 | 10.62 | 0 | .114 | .165 | *** |
| NEG | .155 | .025 | 6.23 | 0 | .106 | .204 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.133 | .013 | -10.25 | 0 | -.159 | -.108 | *** |
| Nordic Countries | -.01 | .06 | -0.18 | .861 | -.128 | .107 | |
| Southern Europe | -.356 | .036 | -9.77 | 0 | -.427 | -.284 | *** |
| Asia-Pacific | .127 | .017 | 7.51 | 0 | .094 | .16 | *** |
| Eastern Europe | -.566 | .061 | -9.27 | 0 | -.686 | -.446 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.271 | .027 | 46.35 | 0 | 1.217 | 1.325 | *** |
| Crafts | -.887 | .034 | -26.29 | 0 | -.953 | -.821 | *** |
| Dance | -.144 | .115 | -1.26 | .209 | -.369 | .081 | |
| Design | .261 | .02 | 13.13 | 0 | .222 | .3 | *** |
| Fashion | -.432 | .025 | -16.94 | 0 | -.482 | -.382 | *** |
| Film & Videos | -.432 | .021 | -20.10 | 0 | -.474 | -.39 | *** |
| Food | -.564 | .024 | -23.12 | 0 | -.612 | -.517 | *** |
| Games | .757 | .021 | 35.25 | 0 | .715 | .799 | *** |
| Journalism | -.964 | .049 | -19.86 | 0 | -1.059 | -.869 | *** |
| Music | -.192 | .035 | -5.48 | 0 | -.26 | -.123 | *** |
| Photography | -.267 | .05 | -5.29 | 0 | -.365 | -.168 | *** |
| Publishing | -.004 | .032 | -0.14 | .892 | -.067 | .058 | |
| Technology | -.615 | .037 | -16.45 | 0 | -.688 | -.541 | *** |
| Theater | -.132 | .063 | -2.08 | .037 | -.255 | -.008 | ** |
| Constant | 3.323 | .016 | 201.98 | 0 | 3.29 | 3.355 | *** |

**Table C.2. (cont.)**

| **Quartile 2** | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDGS | .087 | .018 | 4.78 | 0 | .051 | .123 | *** |
| CD | -.036 | .001 | -57.77 | 0 | -.037 | -.035 | *** |
| POS | .176 | .012 | 14.33 | 0 | .152 | .2 | *** |
| NEG | .129 | .02 | 6.31 | 0 | .089 | .17 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.132 | .011 | -11.88 | 0 | -.154 | -.11 | *** |
| Nordic Countries | -.025 | .034 | -0.75 | .456 | -.092 | .041 | |
| Southern Europe | -.401 | .039 | -10.23 | 0 | -.478 | -.324 | *** |
| Southern Europe | -.401 | .039 | -10.23 | 0 | -.478 | -.324 | *** |
| Asia-Pacific | .182 | .018 | 10.15 | 0 | .147 | .217 | *** |
| Eastern Europe | -.651 | .045 | -14.50 | 0 | -.739 | -.563 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | 1.119 | .014 | 81.30 | 0 | 1.092 | 1.146 | *** |
| Crafts | -.967 | .048 | -20.14 | 0 | -1.061 | -.873 | *** |
| Dance | -.091 | .118 | -0.77 | .443 | -.323 | .141 | |
| Design | .626 | .025 | 24.98 | 0 | .577 | .675 | *** |
| Fashion | -.2 | .022 | -9.15 | 0 | -.243 | -.157 | *** |
| Film & Videos | -.327 | .018 | -18.09 | 0 | -.362 | -.291 | *** |
| Food | -.507 | .034 | -14.93 | 0 | -.573 | -.44 | *** |
| Games | 1.082 | .024 | 45.88 | 0 | 1.035 | 1.128 | *** |
| Journalism | -1.02 | .122 | -8.34 | 0 | -1.26 | -.78 | *** |
| Music | .318 | .024 | 13.13 | 0 | .271 | .366 | *** |
| Photography | .07 | .048 | 1.45 | .147 | -.025 | .165 | |
| Publishing | .333 | .022 | 15.27 | 0 | .29 | .375 | *** |
| Technology | -.44 | .035 | -12.72 | 0 | -.507 | -.372 | *** |
| Theater | -.131 | .056 | -2.36 | .018 | -.24 | -.022 | ** |
| Constant | 4.436 | .026 | 167.91 | 0 | 4.384 | 4.487 | *** |

**Table C.2. (cont.)**

| **Quartile 3** | | | | | | | |
|---|---|---|---|---|---|---|---|
| SDGS | .093 | .021 | 4.35 | 0 | .051 | .134 | *** |
| CD | -.027 | .001 | -50.17 | 0 | -.028 | -.026 | *** |
| POS | .187 | .01 | 17.86 | 0 | .167 | .208 | *** |
| NEG | .106 | .024 | 4.37 | 0 | .059 | .154 | *** |
| REG: Base North America | 0 | . | . | . | . | . | |
| Western Europe | -.163 | .013 | -12.15 | 0 | -.189 | -.136 | *** |
| Nordic Countries | -.07 | .061 | -1.14 | .256 | -.19 | .051 | |
| Southern Europe | -.335 | .044 | -7.65 | 0 | -.42 | -.249 | *** |
| Asia-Pacific | .08 | .021 | 3.80 | 0 | .039 | .121 | *** |
| Eastern Europe | -.553 | .106 | -5.20 | 0 | -.762 | -.345 | *** |
| CAT: Base Art | 0 | . | . | . | . | . | |
| Comic | .949 | .017 | 56.98 | 0 | .916 | .982 | *** |
| Crafts | -.916 | .057 | -16.13 | 0 | -1.028 | -.805 | *** |
| Dance | -.23 | .099 | -2.34 | .019 | -.424 | -.037 | ** |
| Design | .966 | .029 | 33.85 | 0 | .91 | 1.022 | *** |
| Fashion | -.086 | .03 | -2.90 | .004 | -.144 | -.028 | *** |
| Film & Vid | -.31 | .018 | -17.65 | 0 | -.344 | -.275 | *** |
| Food | -.191 | .041 | -4.63 | 0 | -.272 | -.11 | *** |
| Games | 1.293 | .023 | 55.74 | 0 | 1.247 | 1.338 | *** |
| Journalism | -.567 | .114 | -4.98 | 0 | -.79 | -.344 | *** |
| Music | .201 | .022 | 9.31 | 0 | .159 | .244 | *** |
| Photography | .229 | .038 | 6.04 | 0 | .155 | .303 | *** |
| Publishing | .311 | .016 | 19.81 | 0 | .281 | .342 | *** |
| Technology | .322 | .03 | 10.88 | 0 | .264 | .38 | *** |
| Theater | -.378 | .036 | -10.50 | 0 | -.449 | -.308 | *** |
| Constant | 5.192 | .022 | 239.24 | 0 | 5.149 | 5.234 | *** |
| Mean dependent var | | 3.615 | | SD dependent var | | 1.845 | |
| *** p<.01, ** p<.05, * p<.1 | | | | | | | |

APPENDIX D

STATISTICAL ANALYSIS AND HYPOTHESIS

## Table D.1. Results of Hypothesis Testing

| Hypothesis | Dependent Variable | SDG Result | Text2SDG Robustness Check | Result (Pledged) | Result (Backers) | Explanation |
|---|---|---|---|---|---|---|
| **H1**: The overall alignment of crowdfunding campaigns with SDGs has a positive impact on the success of crowdfunding campaigns. | Pledged Amount | 0.142 *** | 0.043 ** | Accepted | Accepted | SDG alignment positively impacts pledged amount in both the SDG and robustness check. |
| | Backers | 0.07 *** | -0.019, (Not Significant) | Accepted | Not Significant | SDG alignment positively affects backers in SDG result, but no significant impact in robustness check. |
| **H2**: The alignment of crowdfunding campaigns with a particular SDGi (where i is standing for the sustainable development goals and take values from 1 to 17) has a positive impact on the success of crowdfunding campaigns. | Pledged Amount | Varies by SDG | Varies by SDG | Accepted | Accepted | SDG6, SDG13, SDG14 show significant positive in both packages. |
| | Backers | Varies by SDG | Varies by SDG | Accepted | Accepted | Specific SDGs like SDG6, SDG13, and SDG14 significantly increase backer numbers |
| **H3**: The Positive sentiment expressed in crowdfunding campaign descriptions has a positive impact on the success of crowdfunding campaigns. | Pledged Amount | 0.307 *** | 0.307 *** | Accepted | Accepted | Positive sentiment leads to higher pledged amounts in both checks. |

## Table D.1. (cont.)

| | | | | | | |
|---|---|---|---|---|---|---|
| | Backers | 0.172 *** | 0.173*** | Accepted | Accepted | Positive sentiment increases the number of backers significantly |
| **H4**: The Negative sentiment expressed in crowdfunding campaign descriptions has a positive impact on the success of crowdfunding campaigns. | Pledged Amount | 0.094, *** | 0.097*** | Accepted | Accepted | Negative sentiment also contributes positively to pledged amounts in both checks. |
| | Backers | 0.108, *** | 0.11, *** | Accepted | Accepted | Negative sentiment leads to more backers |
| **H5**: The duration of crowdfunding campaigns has a negative impact on the success of crowdfunding campaigns. | Pledged Amount | -0.042 *** | -0.042 *** | Accepted | Accepted | Longer campaigns result in lower pledged amounts |
| | Backers | -0.029 *** | -0.029 *** | Accepted | Accepted | Longer campaigns negatively impact |
| **H6**: Campaign success, as measured by both pledged amounts and backer numbers, significantly varies across different regions. | Pledged Amount | *** | ** | Accepted | Accepted | Regional differences are significant, with Asia-Pacific performing better in both checks then Base region North America. |
| | Backers | *** | ** | Accepted | Accepted | Significant regional variations in backers, with Asia-Pacific |
| **H7**: Campaign success, as measured by both pledged amounts and backer numbers, significantly varies across different campaign categories. | Pledged Amount | *** | ** | Accepted | Accepted | Categories like Comic, publishing and Design perform better |
| | Backers | *** | ** | Accepted | Accepted | Significant category-based variation in backer numbers, with Comics, Design, and Games |

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