Unleashing Prosperity: The Dynamic Interplay Of Creative Goods Trade On India's Exponential Growth.

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DECLARATION BY STUDENT

I hereby declare that the data presented in this Dissertation report entitled, "Unleashing Prosperity: The Dynamic Interplay Of Creative Goods Trade On India's Exponential Growth" is based on the results of investigations carried out by me in the Economics Discipline at the Goa Business School, Goa University under the Supervision of Prof. B.P. Sarath Chandran and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will not be responsible for the correctness of observations / experimental or other findings given the dissertation.

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This is to certify that the dissertation report **"Unleashing Prosperity: The Dynamic Interplay Of Creative Goods Trade On India's Exponential Growth"** is a bonafide work carried out by **Mr** Rancel Tristan Jozef Fernandes under my supervision in partial fulfilment of the requirements for the award of the degree of **MA in Economics** in the Discipline of Economics at the Goa Business School, Goa University.

Signature

Prof. B.P. Sarath Chandran

Date: 9/05/2024

Signature of Dean of the School

School Stamp

Date: 11/05/2024

Place: Goa University

PREFACE

I'm excited to share this study with you, diving into the colourful world of India's creative economy and its role in global trade. My name is Rancel Fernandes, and this research is a big part of my second year Master of Arts in Economics dissertation thesis. It all started with my fascination for international trade, but what really intrigued me was the "creative economy" , a topic that's not your everyday conversation but something we're surrounded by all the time.

As I explored this project, I found myself captivated by how art, culture, and trade intersect to drive economic growth and shape societies. This study is my attempt to understand the potential and challenges of India's creative goods trade sector, which is bursting with innovation and heritage.

In these pages, I'll take you on a journey through literature, data, and analysis as we explore how India's creative economy trade fits into the global trade scene. Through careful research, I hope to show you the opportunities and obstacles India faces in trading creative goods worldwide.

I want to thank the research guide who supported me along the way, and the wealth of resources which I got access to that made this possible. My goal is for this study to spark conversations about the power of creativity in shaping our world's trade and inspire future research to unlock India's creative trade potential.

Warm regards,

Rancel Fernandes

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I am also deeply grateful to Goa University-Goa Business School for giving me this opportunity for conducting this research and for providing me access to valuable e-resources from various sources. The availability of these resources greatly enriched my research experience and contributed immensely to the depth and breadth of my study. Their commitment to academic excellence and provision of essential resources have been indispensable in the completion of this research project.

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ABSTRACT

This study explores India's participation in the global trade of creative goods, with a keen focus on identifying pathways for economic growth through optimised trade strategies. Motivated by the imperative to understand India's role within the expansive realm of the creative economy, the research analyses the top 10 trading partners of India across the years 2002 to 2021. Employing a comparative framework analysis for each year, the study meticulously evaluates the contributions of creative goods trade on India’s exponential growth. Furthermore, India's Revealed comparative advantage in specific products is identified with respect to the top 10 trading partners for its corresponding year, followed by the utilisation of predictive modelling to estimate the potential trade contribution of these products for randomly selected years on the exponential growth . The findings of this comprehensive study underscore the substantial potential for India to initiate its trade in creative goods by strategically capitalising on its comparative advantage products, thereby fostering sustainable economic exponential growth and furthering its position in the global marketplace.

Keywords: GDP, India, Creative goods, International trade, Specialisation.

CHAPTER

I

INTRODUCTION

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

The Creative sector is a multifaceted sector, comprising a very vibrant field of components like art, design, entertainment, media, technology, and more. Every country has its very own creative product which can be very useful in its commercial activities. This has proven to be a catalyst for newer innovation, cultural expression, and even economic rejuvenation.

In India, the significance of the creative economy cannot be overstated. Communities in this region have historically been at the forefront of fostering creativity. Their cultural contributions, evident in various forms such as architecture, dance, festivals, handicrafts, literature, and music, have established a legacy that endures through centuries. India boasts some of the world's oldest surviving literature and inspiring architecture.(Kukreja et al., 2023).

With this context, India's commercial activities of such goods also stand a testament to the transformative power of its creative economy. As one of the world's largest democracies blends tradition with modernity and diversity, it has also embarked on an exploration of its creative potential. This in turn, has sparked an intricate dance between the creative economy trade and its pursuit of exponential growth. It is said that, The overall contribution of creative outputs to economic growth appears statistically marginal. However, when examining creative goods separately, they exhibit positive growth dividends, particularly over five-year periods(Goel, 2022). However trade of such goods, very marginally affected its trend of exponential growth. It could be said that India's primary export contributions come from manufactured goods such as Engineering Goods, Petroleum Products, Chemicals and Allied Products, Gems and Jewelries,

Textiles, and Electronic Goods, among others, comprising more than 80 percent of our export portfolio(Amol Dattatraya Matore & Sagar, 2015).

India lacks an integrated policy framework for the creative sector(SHABA & VERMEYLEN, 2015). The creative sector in India needs to be strengthened so that India could potentially gain from trade, by trading such goods which they are good at producing. In order to do so India needs to identify its weak areas and identify which creative product would give India the maximum trade contribution for its exponential growth.

1.2 CREATIVE ECONOMY

What makes an economy a “Creative Economy”?

The creative economy is like a big playground where being imaginative helps to make money and build our cultures. Imagine this playground filled with different kinds of play areas, each one representing a different job or industry. You have got artists painting pictures, designers creating logos, and musicians making catchy tunes. Then there are the tech wizards inventing new gadgets and the writers crafting interesting stories. All of these areas together make up the creative economy. Think about when you come up with a really interesting idea for a game or a story. That idea is like a little seed of creativity. In the creative economy, people take these seeds and grow them into all sorts of things that can make life more fun or interesting. And just like a garden needs fences to protect the plants, the creative economy has rules and laws to protect people's ideas. That way, everyone gets credit for what they create, and it encourages more people to come up with new ideas. But it's not just about making interesting things. India's creative economy also thrives on innovation and technology. These innovations push the boundaries of creativity and make waves around the world.

India's rich cultural heritage adds another layer of excitement to the creative playground. Whether it's traditional dance forms like Bharatanatyam and Kathak or ancient storytelling techniques passed down through generations, India's diverse cultures provide endless inspiration for creative minds. At the end of the day, what really drives the creative economy is what people like and want to buy. It's like when you're picking out your favourite toy to play with. You choose the one that looks the most fun or exciting. In the creative economy, people's choices help to decide what gets made and what becomes popular. And that's what keeps the creative economy growing and changing, making our world a more colourful and exciting place to be.

What are creative goods?

Relating to the above “creative economy” concept, Creative goods are like the treasures found in the creative playground. They're the products of imagination, skill, and innovation that bring joy and inspiration to people's lives. Think of them as beautiful paintings, handcrafted jewellery, and stylish clothing made by talented artists and artisans.

In India, creative goods come in all shapes and sizes, reflecting the country's rich cultural heritage and diverse traditions. From embroidered textiles to intricately carved wooden sculptures, each creative good tells a story and captures the essence of Indian creativity.

However creative goods are not just limited to traditional crafts. They also include modern innovations like innovative gadgets, stylish home decor items, and cutting-edge fashion designs. Indian tech startups, for example, are known for developing innovative apps, games, and software solutions that push the boundaries of creativity and technology.

What sets creative goods apart is their ability to evoke emotion and spark imagination. Whether it's admiring a breathtaking piece of artwork or marvelling at a groundbreaking invention, creative goods have the power to captivate and inspire people in profound ways. In India's

dynamic creative economy, creative goods play a crucial role in driving innovation, economic growth, and cultural exchange. They represent the ingenuity and creativity of Indian artisans, designers, and entrepreneurs, and showcase the country's unique identity on the global stage. And just like the diverse offerings found in a creative playground, creative goods are varied. From traditional handicrafts to cutting-edge technology, India's creative goods continue to captivate and delight audiences around the world, contributing to the country's thriving creative economy.

UNCTADstat serves as a comprehensive repository of data and analysis, offering insights into various aspects of international trade, investment, and development. Within this expansive framework, UNCTAD has recognized the unique characteristics and growing significance of the creative economy, leading to the establishment of a dedicated category for creative industries within UNCTADstat. This specialised category within UNCTADstat acknowledges the multifaceted nature of the creative economy, encompassing industries such as the following and these Industry categories have the following subcategories clearly defined by UNCTADstat,

1)Arts Craft

- Carpets
- Celebration
- Other art crafts
- Paperware
- Wickerware
- Yarn

2)Audiovisuals

- Films
- CD’s, DVD’s, Tapes

3)Design

- Architecture
- Fashion
- Glassware
- Interior
- Jewellery
- Toys

4)New Media

- Recorded Media
- Video games

5)Performing arts

- Musical instruments
- Printed music

6)Publishing

- Books
- Newspaper
- Other printed matter

7)Visual arts

- Antiques
- Painting
- Photography
- Sculpture

The trade data present in these categories are based on different versions of the Harmonized System product classification (HS1992, HS1996, HS2002, HS2007, HS2012, HS2017) (*UNCTADstat Data Centre*, n.d.).

1.3 STUDIES ON CREATIVE GOODS TRADE

The origins of the idea of “Creative Economy” emerged with the publication of the "Creative Nation" report by the Australian Labour Government in 1994. This report underscored the importance of culture in shaping national identity and expanded the definition of culture to encompass various forms of expression such as film, radio, television, performing arts, literature, dance, music, visual arts and crafts, copyrights, libraries, interactive multimedia, design, and beyond (Department of Communications and the Arts 1994). It marked the inaugural recognition of the economic relevance of cultural and creative sectors (Kukreja et al., 2023). The idea was then subsequently expanded upon in England, reflecting the shifts occurring in the global economy. This transition marks a departure from economies primarily reliant on manufacturing to ones increasingly propelled by specific service sectors (Kon, 2016). UNCTADstat has established a distinct category for the creative economy to recognize its growing significance in global trade and development. The creative economy plays a crucial role in driving economic growth, innovation, and job creation worldwide.UNCTAD views the creative economy as a

dynamic concept rooted in intangible assets, capable of driving economic growth and development. It has the potential to foster income generation, create jobs, and boost export earnings, all while championing social inclusion, cultural diversity, and human development. This encompasses cultural and social elements that intersect with technology, intellectual property, and tourism goals (Kon, 2016). By segregating this sector, UNCTAD aims to provide comprehensive data and analysis tailored to the unique characteristics and dynamics of creative industries(*UNCTADstat Data Centre*, n.d.). This dedicated focus allows policymakers, researchers, and stakeholders to better understand the contributions of the creative economy, formulate targeted policies, and foster sustainable development in this increasingly vital sector.

In India, the significance of the creative economy cannot be overstated. Communities in this region have historically been at the forefront of fostering creativity. Their cultural contributions, evident in various forms such as architecture, dance, festivals, handicrafts, literature, and music, have established a legacy that endures through centuries. India boasts some of the world's oldest surviving literature and inspiring architecture.(Kukreja et al., 2023).

Based on several previously researched studies, it has been observed that India is one of the leading exporters of creative goods and it is said to rank fourth among developing countries in terms of exports for the year 2015 (SHABA & VERMEYLEN, 2015), even studies show that India demonstrated substantial activity in the creative economy alongside strategic interest in fostering the development of the creative industry(Seok & Nam, 2022).

1.4 RESEARCH GAP

The research gap identified after reviewing the relevant literature is that there are not many existing researches which have been carried out in reference to India’s context.

The existing research mainly focuses on creative goods trade shares and trends of its creative trade volume margins and none of them show the significance of creative goods trade on the exponential growth of India. There are no researches with India's context which shows certain creative goods which India can specialise in order to maximise benefits to gain from trade.

1.5 RESEARCH PROBLEM

In this research, we are trying to find the solutions to the problem: How can India develop and implement an effective creative trade policy framework to strengthen its creative sector and leverage its inherent strengths in producing creative goods for trade, thereby maximising its contribution to its exponential growth?

Since India is very culturally diverse and has a historic culture of creativity, India could potentially gain considerably and increase its exponential growth.

1.6 RESEARCH QUESTIONS

Based on our research problem at hand, we are primarily concerned with answering questions with reference to,

- The existing literature: Are the existing researches satisfactory in explaining India's feasibility of creative trade in the long run?
- Impact on GDP: Does the trade of creative goods have any significant impact on the GDP of India?
- What measures could India adopt to potentially improve their terms of trade by trading creative goods?

1.7 AIMS

The primary aim of this study is to develop a comprehensive year-wise comparative framework aimed at analysing the impact of India's trade in creative goods on its GDP growth over the period from 2002 to 2021. By utilising available data within this timeframe, the study seeks to establish a structured approach to evaluate the interplay between India's creative sector trade and its overall economic performance. In achieving this aim, the research will undertake a systematic examination of India's trade patterns in creative goods. By disaggregating trade data and identifying trends over time, the study aims to gain insights into the dynamics of India's creative economy and its influence on GDP growth. Furthermore, the comparative framework will serve as a diagnostic tool to discern the strengths and weaknesses within India's creative sector trade. By conducting detailed analyses of key performance indicators, such as trade volumes, values, and balances, the study aims to identify areas of competitive advantage as well as areas requiring strategic intervention or policy support. Through a nuanced understanding of the linkages between India's creative sector trade and GDP growth, the research aims to contribute valuable insights to policymakers, industry stakeholders, and academics. By clarifying the economic significance of the creative economy and its potential as a driver of sustainable development, the study seeks to inform evidence-based policy decisions and foster strategic initiatives aimed at promoting the growth and resilience of India's creative industries, which in turn can effectively foster the exponential growth of India.

1.8 RESEARCH OBJECTIVES

The following are the research objectives that will lay the foundation for carrying out the study of India’s creative goods trade on India’s exponential growth.

- To assess the feasibility of India's creative goods trade.

- To study the impact of Creative Goods Trade on GDP Growth.

- To study the effects of Specialized Creative Goods Trade on GDP growth.

In objective one, a variety of economic trade tools will be used in assessing the creative goods trade trends in a variety of areas to arrive at a conclusion where we can safely say that there is feasibility for creative goods trade in India.

Objective 2 will guide us in focusing on deriving the estimated contribution values of the trade of creative goods trade on the GDP of India. This is the primary research area of focus since we are trying to derive approximate trends and recreate what previous research studies have done but in a different approach to show its estimation of the exponential growth of India. Where in a study it was mentioned that the creative output takes a minimum of 5 years time until it begins to show fair contributions to the GDP (Goel, 2022).

For Objective 3, We need to arrive at solutions to the problems where in previous studies it showed that creative goods trade in India does not contribute enough to the exponential growth of India. For this we need to identify the strong areas of creative goods trade by identifying the potential for a maximum gain from trade to not only improve India's terms of trade but also to majorly contribute to the exponential growth in the long run. For this, the use of predictive modelling will be used in order to predict 'what would have been' the outcome or output if at all India were to devote resources and capital efficiently to the production of specific creative goods to maximise growth trends. This objective is complementary to objectives 1 and 2, and will guide us in making informed decisions based on available information and facts derived from

analysing the relevant data. These informed decisions can provide valuable insights to concerned parties at play to strive for a change to take place to strengthen the sectors and to maximise what is beneficial for India. As a result, there can be a great possibility for a structural change to occur in how the creative economy in India functions.

1.9 HYPOTHESIS TESTING

To effectively pursue the systematic objectives outlined for the research, it is imperative to explore into a thorough analysis of pertinent data pertaining to the feasibility of creative goods trade. By meticulously examining this data, we aim to discern the potential impact of such trade on India's exponential growth trajectory. Furthermore, it is essential to subject these assertions to rigorous testing in order to ascertain their validity and substantiate claims regarding their anticipated contributions to India's GDP.

Within this analytical framework, we encounter a series of hypotheses aimed at elucidating the research objectives:

Objective 1: Feasibility of Creative Goods Trade in India:

H0: There is no feasibility for the trading of creative goods in India.

H1: There is feasibility for the trading of creative goods in India.

Objective: 2 Impact of Creative Goods Trade on GDP Growth:

H0: There is no statistically significant relationship between creative goods trade on India’s GDP growth.

H1: There is a statistically significant relationship between creative goods trade and India's GDP growth.

Objective 3:Effect of Specialized Creative Goods Trade on Exponential Growth:

H0: The trade of the Specialised creative goods has no impact on the Exponential growth of India.

H1: The trade of the specialised creative goods has a significant impact on the Exponential growth of India.

By subjecting these hypotheses to rigorous scrutiny, we aim to shed light on the dynamics of the creative economy and its potential as a driver of sustained exponential growth and development in India. Through evidence-based analysis and robust statistical modelling, we seek to contribute valuable insights to the discourse surrounding the role of creative industries in shaping the future trajectory of India's economy. Especially hypothesis 3, during analysis, will help us understand how this trade might affect India's significant growth and strengthen the creative sector. We'll then test these hypotheses to determine if they indeed make a difference and contribute to India's exponential growth in the predicted models.

A significance test will also follow up incase we happen to commit a type 1 error, in case we incorrectly reject a true null hypothesis. In other words, it happens when we conclude that there is a significant effect or difference when, in reality, there is no such effect or difference.

1.10 SCOPE OF THE STUDY

This study aims to explore a topic that hasn't been studied much yet and will contribute to the existing body of knowledge which is still being researched upon and has not yet been greatly looked at specifically in reference to India. And we will see how India trades creative goods and what it means for the country's economy. We want to understand which creative goods India is really good at making and how trading them can help India potentially grow in order to maximise its gains from trade from this source.

Until now, not many studies have looked closely at how trading creative goods affects India's exponential growth. We also have not figured out exactly what India's strengths are in making these goods or whether, if at all, India faces rigorous competition. By doing this research, we hope to fill these gaps in our knowledge and learn more about how trading creative goods can help India's exponential growth grow. One of the main things we want to find out is what creative goods India is best at making. We'll look at data about what kinds of creative goods India trades with other countries and observe trends on which top 10 countries India exports to and see where India has an advantage. This information can help India focus its efforts on the areas where it can benefit the most and make strategic decisions. We also want to see how trading creative goods affects India's overall exponential growth. For this, another scope of this research is that it would give us a clear picture of understanding the annual contribution of the trade of creative goods to the GDP of India. While other studies have talked about how creative industries help the economy, we want to see if trading specific kinds of creative goods makes a big difference in how fast India's economy grows. Lastly, we'll look at a specific scenario where if at all India were to specialise in producing that particular good which gives them the utmost advantage in and see how trading them with India's top partner countries affects India's exponential growth. These goods could be unique and often very innovative since it suggests that India is good at producing that particular product. By studying how India trades these goods with other countries, we hope to understand better how they can help India's economy grow. The results which will be obtained may help concerned parties to make informed decisions so that resources can be efficiently devoted to their fullest utilisation and then, as a result, it will contribute towards a chained effect of the expansion of the creative sector in India in terms of its employment in the sector and the labour force's skill development.

1.11 CHAPTER SCHEME

The following chapters that will guide us in our analysis are,

- Chapter 2: This chapter will highlight the major referenced research articles and publications which provides the groundwork for our research analysis.
- Chapter 3: This Chapter will reveal our methodological approaches which we will be using to cater to our research objectives and will also reveal our analytical design.
- Chapter 4: Chapter 4 Primarily focuses on our analysis which caters to our objectives and will help us in arriving at potential solutions to our research problem. And lastly, we will derive our conclusions and recommendations, while at the same time reveal our limitations of the research.

CHAPTER

II

TRADE IN CREATIVE GOODS - A LITERATURE REVIEW

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

India's creative trade is an intriguing study area since India has a historic cultural significance and there is a lot of potential scope from gaining considerably by trading of such goods. Before we get in detail regarding the assessing of relevant facts of India's creative goods trade, we must first review what the existing researches have to say about India and its creative goods trade. Also we need to establish a base by finding out its existing researched feasibility. We also need to get insights into what researchers have to say regarding the relation between creative goods trade and GDP growth. Similarly, we could avail insights from researches done with context by other foreign countries as well. The existing research could provide us with valuable insights into our research and its analysis. By doing so, this could provide us with valuable methods which we can utilise for our analysis.

2.2 LITERATURE REVIEW

As seen in a variety of studies done in this area, one of such is conducted by Anita Kon, who published in "Brazilian Journal of Political Economy" (2016) a study entitled "On the creative economy chain in Brazil: potential and challenges." She attempted to explain the creative chain of trade patterns with respect to her country Brazil. The author has presented several key concepts related to the creative sector and how it can be useful for employment generation and income. By doing so, Brazil's creative sector was analysed to view the economic development profile and potential of this industry in Brazil. The methodology adopted by the author in this study was by analysing reports, and survey reports of data like Annual Social Information

(RAIS), IBGE's National Classification of Economic Activities. The author provided the basis for basic interpretations of what is a creative economy, where she said creativity can be described as the journey where ideas are born, linked together, and moulded into tangible or intangible creations that hold worth. The author further elaborated, creativity is when you use ideas to make more ideas, turning them into something valuable, whether it's something you can touch or not. She also highlighted a difference in the concept between creativity and innovation, where she highlighted that the United Nations says it is important to understand the difference between creativity and innovation because they're not the same. However, it recognizes that innovation usually includes some creativity, like making new ideas or changing old ones. Nowadays, innovation isn't just about science and technology, it also includes making things look good or expressing ideas in different ways, like through art (Kon, 2016). According to the research findings, creative services trade consistently shows positive outcomes over the observed period, indicating both increased sales abroad and heightened purchasing activities from foreign sources. This suggested a thriving global exchange within the creative services sector, where businesses are not only successfully selling their services internationally but also actively engaging in acquiring creative services from abroad. These findings highlight the robustness and vitality of the creative services trade, underlining its significance in fostering international economic relations and cultural exchange. (Kon, 2016).

Similarly, another study, "Creative India: Tapping the full potential," delves into India's perspective on the creative goods trade. Published in the "ICRIER" journal by Prateek Kukreja and colleagues from the ADBI Institute in 2022, it underscores India's substantial creative economy, yet emphasises its vast untapped potential. Through analysis of India's creative sector's actual size and the challenges it faces, the authors provide insights into the nation's creative

economy landscape. Employing data from periodic labour force surveys and national statistical accounts, the study investigates employment trends within the creative sectors. Utilising an occupation-based approach for employment statistics and regression analysis to gauge the impact of creative labour contribution, the authors unveil empirical findings. It is revealed that between 2017 and 2020, the average annual employment in India's creative economy stood at 39.73 million. The study also sheds light on the policy measures aimed at enhancing sector-wise creative opportunities, while highlighting disparities in rural and urban contributions, with rural areas showing lower involvement at 4.07% compared to 17.03% in urban areas. The author also highlighted in her findings that the promotion of Indian cultural and creative goods and services is essential, and one effective way to do this is by organising events, trade fairs, and international festivals. Recognizing this need, the Ministry of Culture of the Government of India has taken proactive steps by launching the Global Engagement Scheme. This initiative aims to enhance the global visibility of Indian culture by providing support to various Indian art forms. Under this scheme, the Ministry facilitates the organisation of "Festivals of India" internationally, showcasing the diverse cultural heritage of the country on a global platform. Additionally, financial assistance is extended to cultural societies that actively promote Indian culture outside India (Kukreja et al., 2023). By facilitating such engagements, the Government of India endeavours to foster cultural exchanges, strengthen international partnerships, and showcase the richness and vibrancy of Indian heritage to audiences worldwide. This initiative not only boosts the global presence of Indian cultural and creative offerings but also contributes to fostering mutual understanding and appreciation among diverse communities across the globe. In addition to highlighting the importance of promoting Indian cultural and creative goods internationally, the author's findings underscore another critical aspect: the need to enhance access to finance for

the creative sector in India. This recommendation emerges from a recognition of the significant role that financial resources play in fostering the growth and sustainability of creative enterprises (Kukreja et al., 2023). Access to finance remains a significant challenge for many creative entrepreneurs and organisations in India. Limited access to capital hampers their ability to invest in talent development, innovation, infrastructure, and marketing initiatives. This, in turn, stifles their potential for growth and competitiveness both domestically and globally. To address this issue, concerted efforts are required from both the public and private sectors. The government can play a crucial role by introducing targeted financial schemes and incentives tailored to the specific needs of the creative sector. This may include providing subsidised loans, grants, tax incentives, or venture capital funds earmarked for creative businesses. Furthermore, collaboration with financial institutions to develop specialised financial products and services catering to the unique requirements of creative enterprises can enhance access to funding. Initiatives such as establishing dedicated financing platforms, venture capital funds, or angel investor networks focused on the creative sector can facilitate greater access to capital for aspiring entrepreneurs and established players alike. Moreover, fostering a conducive ecosystem that nurtures entrepreneurship and innovation in the creative industry is essential. This involves creating supportive regulatory frameworks, building infrastructure, promoting entrepreneurship education, and facilitating networking opportunities. By addressing the challenge of access to finance, India can unlock the full potential of its vibrant creative sector, empowering creative entrepreneurs to thrive, innovate, and contribute significantly to the country's economic and cultural prosperity. Moreover, the study addresses gender disparities within the creative sector, noting a higher male participation rate compared to females, albeit with a noticeable lag. These findings underscore the importance of targeted policies and interventions to harness India's vast

creative potential, ensuring inclusive growth and equitable opportunities for all segments of society (Kukreja et al., 2023).

The study conducted by Abdul Shaban and Filip Vermeylen, titled "Trade in the creative sector: Comparing India with China, Brazil, and the UK," sheds valuable light on the dynamics of volume trade within the creative sector across different nations. Published in the "Economic and Political Weekly" in 2015, this study offers insights into India's position in comparison to other important players in the global creative economy (SHABA & VERMEYLEN, 2015). By employing a comparative framework, the authors sought to elucidate the functioning of India's creative goods sector by juxtaposing it with the creative goods sectors of Brazil, China and the United Kingdom (SHABA & VERMEYLEN, 2015). Drawing upon data sourced from UNCTADSTAT, a reputable secondary repository of trade data for creative goods (*Creative Economy Report 2010 - M.MOAM.INFO*, n.d.), the study meticulously analysed international trade patterns with a focus on domestic market dynamics. Methodologically, the authors conducted a detailed year-on-year comparison of trade patterns, assessing the contributions of various creative goods to trade accounts. The findings revealed a notable discrepancy in the value of Indian exports(SHABA & VERMEYLEN, 2015) compared to China, signalling areas for potential growth and improvement. Despite this gap, the rising imports of creative goods and services into India underscored the emergence of a vibrant domestic market ripe with potential. However, unlike its counterparts—China, Brazil, and the UK—India was found to lack an integrated policy framework specifically tailored to the needs of the creative sector (SHABA & VERMEYLEN, 2015). The absence of such a framework poses challenges and inhibits the sector's full potential for growth and development. It was also found that the imports of creative goods to India, China, and Brazil have been experiencing notable increases (SHABA &

VERMEYLEN, 2015), surpassing the growth rates of their respective exports. This trend suggests a shift in the trade dynamics, wherein the trade surplus, measured as a percentage of exports, has been steadily declining over time. It also signifies a significant developmental transition occurring within these nations, wherein there is a growing appreciation for the creative and cultural aspects of traditional goods over mass-produced commodities (SHABA & VERMEYLEN, 2015). The primary consumers of these creative goods are identified as the middle and higher classes within these countries, whose incomes have seen substantial improvements over the years. Notably, in the context of India and China, the import ratio between them outweighs the export ratio. Specifically, while the share of India's exports to China constituted 11.4% and 17.1% of China's total exports in 2002 and 2012, respectively, India's imports relative to Chinese imports were significantly higher, standing at 32.6% and 62.8% for the same years (SHABA & VERMEYLEN, 2015). These figures indicate that, in comparison to its exports, India imports a larger volume of goods from China (*Creative Economy Report 2010 - M.MOAM.INFO*, n.d.). In concrete terms, the total imports of creative goods by India surged from $974 million in 2003 to $8,917 million in 2012. In contrast, China's imports experienced a parallel growth trajectory, escalating from $2,991 million in 2003 to $14,197 million in 2012(SHABA & VERMEYLEN, 2015). In light of these findings, the author advocates for the formulation of a coherent and informed policy framework that addresses the unique needs and challenges of the Indian creative sector. Such a policy framework, they argue, holds the potential to unlock new opportunities for millions of traditional artisans and workers while simultaneously stimulating economic growth and fostering a conducive environment for creativity and innovation to flourish (SHABA & VERMEYLEN, 2015).

Research findings in the article “A Creative Economy Development Strategy: The Case of Trenggalek Creative Network for Trenggalek Regency, Indonesia” written by Yuli Agustina and others, consistently demonstrate that the creative economy yields positive impacts on GDP (*Creative Economy Outlook 2022*, 2022) across a spectrum of nations, encompassing both developing and developed economies. These studies underscore the significant contribution of creative industries to economic growth and prosperity, transcending geographical boundaries and economic contexts (AGUSTINA et al., 2020). In developing countries, the creative economy serves as a catalyst for socioeconomic advancement, driving innovation, job creation, and export diversification (*Creative Economy Outlook 2022*, 2022). By leveraging indigenous cultural assets, these nations harness their creative potential to stimulate economic development and enhance competitiveness on the global stage(AGUSTINA et al., 2020). Similarly, in developed countries, the creative economy plays a pivotal role in sustaining economic vibrancy and fostering resilience amid evolving market dynamics. The proliferation of creative industries fuels productivity gains, fosters entrepreneurship, and cultivates vibrant cultural landscapes that attract tourism and investment.

Moreover, the positive correlation between the creative economy and GDP extends beyond conventional economic metrics. It encompasses broader socio-cultural dimensions, including enhanced quality of life, social cohesion, and cultural enrichment. By nurturing creativity and innovation, nations unlock new avenues for growth and prosperity, positioning themselves as dynamic hubs of cultural and economic exchange on the global stage(AGUSTINA et al., 2020). In essence, the evidence gleaned from various studies underscores the transformative power of the creative economy as a driver of economic growth and societal well-being, transcending boundaries and enriching the fabric of nations worldwide.

Another vibrant article titled " The Role of local government in Supporting Creative industries-A conceptual Model" written by Fazlagić and others highlights, Statistical data has underscored the pivotal role played by creative goods industries in fostering GDP growth, revealing a consistent upward trend in the contribution of the creative economy to the GDP of developed nations (*Creative Economy Outlook 2022*, 2022). This empirical evidence illuminates the increasing significance of creative sectors in driving economic expansion and prosperity within these advanced economies(Fazlagić & Szczepankiewicz, 2020). Over time, the share of the creative economy within the GDP of developed nations has witnessed a steady rise, reflecting the growing importance of creative industries as key drivers of economic activity. This trend underscores the substantial contributions made by sectors such as arts, entertainment, design, and media in generating wealth, employment opportunities, and innovation within developed economies. Moreover, the statistical data not only highlights the quantitative impact of creative industries on GDP growth but also underscores their qualitative significance in fostering dynamic and resilient economies. Creative sectors serve as catalysts for innovation, driving productivity gains, enhancing competitiveness, and fueling broader economic diversification efforts. By acknowledging the role of creative industries in supporting GDP growth, policymakers, businesses, and stakeholders are better equipped to harness the potential of these sectors for sustainable development and prosperity. Investing in the creative economy not only yields tangible economic benefits but also fosters cultural vibrancy, social cohesion, and inclusive growth within developed nations and beyond. The research findings further elucidate specific determinants crucial for fostering a conducive environment for success-driven, creative entrepreneurs. These determinants include: (a) The presence of a supportive climate that nurtures and encourages innovative ventures, allowing creative individuals to thrive and realise their

potential. (b) The receptiveness and supportiveness of local government towards entrepreneurial endeavours, facilitating ease of doing business and providing necessary resources and guidance to aspiring entrepreneurs. (c) Opportunities for talent development, particularly for individuals with a strong educational background and creative aptitude. Access to quality educational resources and platforms for skill enhancement are pivotal in cultivating a skilled workforce capable of driving innovation and creativity. Moreover, the research identifies a set of factors deemed instrumental in driving future economic growth within the county, both through financial investments and non-financial interventions (Fazlagić & Szczepankiewicz, 2020). These include: Mitigating brain drain by implementing policies and initiatives that incentivize skilled individuals to remain within the county, thereby retaining talent and expertise crucial for economic development. Ensuring the provision of high-quality hard infrastructure, such as transportation networks, communication systems, and utilities, to support business activities and enhance overall competitiveness. Marketing the county as an attractive destination for both domestic and foreign investment, highlighting its strengths, resources, and opportunities for economic growth and development. Prioritising vocational education and training programs aimed at equipping individuals with the skills and competencies needed to thrive in the modern economy, particularly in emerging sectors such as the creative economy. Providing support for grassroots initiatives and community-led projects that harness local creativity and innovation, thereby fostering a culture of entrepreneurship and grassroots development(Fazlagić & Szczepankiewicz, 2020). These factors are directly intertwined with the creative economy, as they create an enabling environment for creative industries to flourish, driving economic growth, innovation, and prosperity within the county. By prioritising these determinants, policymakers and stakeholders can lay the foundation for a vibrant and sustainable creative economy,

unlocking its full potential as a driver of economic and social progress(Fazlagić & Szczepankiewicz, 2020).

Another research article titled “Creative Capacity of European Countries” written by Martin Alexy and others show that creativity, trade and GDP appear to show mixed results (Alexy et al., 2018).

Another article titled “Enabler for Reversal in GDP Growth in the Digital Economy” written by Yuji Tou and others highlights that there is a growing recognition of the significance of soft innovation resources in fueling GDP growth, as emphasised by innovation resources encompass intangible assets such as creativity, knowledge, and skills, which are increasingly recognized as key drivers of economic prosperity and competitiveness (Tou et al., 2018).

Furthermore, the export of goods has been identified as a critical determinant of GDP growth, with its impact varying across different countries, as highlighted in the research conducted by Kovač in the article titled “ International trade of goods as a determinant of GDP growth in Croatia” The contribution of exports to GDP growth is contingent upon factors such as trade policies, market conditions, and the comparative advantage of nations in specific industries(Kovač et al., 2012). Overall, the evidence suggests that creative goods play a pivotal role in driving economic growth and are progressively emerging as a significant component of GDP in numerous countries. As nations increasingly recognize the value of creativity and innovation in driving competitiveness and sustainable development, investment in the creative economy is expected to continue to grow, further bolstering its contribution to GDP and overall economic prosperity (Kovač et al., 2012).

The research article titled "Retracted: A Study on China’s Cultural Product Export Trade and Its Forecast Based on Hausmann’s Export Complexity," authored by Juhua Ye and Xinxing Luo

in 2022, and published in the esteemed journal "Wiley Hindawi," delves into the intricacies of China's cultural and creative goods trade against the backdrop of the information technology revolution. The authors endeavour to unravel the underlying forces driving this trade phenomenon. The methodology outlined in the paper entails the selection of the "export complexity" index as a metric to gauge the export complexity of cultural and creative products in China and 42 representative countries identified through UNCTAD's "Creative Economy" database. This enables a comprehensive measurement and comparative analysis of export complexities across these nations. Additionally, the authors employ the Grey prediction model to forecast the relative export complexity of China's cultural and creative products. The findings reveal intriguing insights. Over the period spanning 2016 to 2025, it is observed that the relative export complexity of China's cultural and creative products remains below 1, indicative of a certain level of export simplicity. However, this value exhibits an upward trajectory, signifying an increasing trend in export complexity over time (Ye & Luo, 2023). Furthermore, the study elucidates that the gap between China's export structure of cultural and creative products and the global average is gradually narrowing. This suggests a convergence in competitiveness in the fiercely competitive international market landscape. By shedding light on these trends and projections, the research underscores the evolving dynamics within China's cultural and creative goods trade domain. It provides valuable insights for policymakers, industry stakeholders, and scholars alike, facilitating informed decision-making and strategic planning to navigate the complexities of the global marketplace (Ye & Luo, 2023).

The article titled "A Social Network Analysis of International Creative Goods Flow," authored by Hwayoon Seok and Yoonjae Nam, underscores the pivotal role of creativity and its associated industries in shaping global trade dynamics. The authors highlight the intricate

interplay between creative goods exchange and various socio-economic factors, shedding light on the complex network of international trade relationships. In terms of methodology, the authors avail data from secondary sources such as UNCTADstat and employ multiple regression analysis techniques. This involves regressing correlations between various factors, including out-degree/in-degree centrality of each creative good in the international trade network, GDP, GNI per capita, population, higher education and training, inbound tourism expenditure, and GERD across different countries in 2014. The authors conduct a comprehensive social network analysis, establishing links between countries based on the exchange of creative goods. The degrees of connection are determined by correlation coefficients of centrality scores and rankings. The findings of the study reveal intriguing insights into the landscape of international trade in creative goods. Notably, the top 20 countries in the international art crafts trade network exhibit varying degrees of centrality. China emerges as a key player, boasting the highest out-degree centrality, followed by India, Turkey, and several other Asia-Pacific economies (Seok & Nam, 2022). These countries demonstrate significant creative economy activity and strategic interest in fostering the development of the creative industry. India and Turkey, in particular, stand out for their notable presence in the art crafts network, characterised by high out/in-degree, eigenvector, and betweenness centrality (Seok & Nam, 2022). Both countries excel in carpet exports, with India and Turkey respectively reporting substantial export values of 935 million USD and 2264 million USD. Furthermore, the authors highlight avenues for future research, suggesting the exploration of longitudinal changes through periodic studies. Additionally, they advocate for a comparative analysis between general and creative industrial trade networks to discern commonalities and differences, thereby enriching our understanding of global trade dynamics in both spheres. These avenues for further exploration promise to yield valuable

insights into the evolving landscape of international trade in creative goods and its implications for socio-economic development (Seok & Nam, 2022).

"The Digital Creative Economy and Trade: Strategic Options for Developing Countries" is a significant research publication authored by Keith Nurse under the auspices of the WTO in 2020. Nurse, in his disclaimer, clarifies that the views expressed in the chapter solely represent his perspective and do not necessarily reflect the stance of the WTO or its member nations. The article delves into the status of the creative economy sector in developing countries at the onset of the COVID-19 pandemic. Notably, it highlights a marked shift in consumer behaviour during the pandemic, with a surge in the adoption of digital platforms to access creative goods and services. This shift was primarily driven by the challenges posed in procuring physical creative goods amidst the pandemic restrictions (Nurse, 2020). In terms of methodology, Nurse employs a time series analysis focused on the COVID-era, drawing from service data sourced from UNCTADSTAT. Additionally, graphical representations of data from various other sources aid in elucidating key trends and patterns within the digital creative economy landscape. The article extensively discusses the state of digital goods trade, digital creative entrepreneurship, and cluster development, emphasising the imperative of harmonising government policies to bolster the digital creative sectors. Nurse's findings underscore a vast scope for the development and enhancement of the creative industry sector, particularly in fostering the rise of the digital creative economy (Nurse, 2020). Noteworthy growth patterns were observed during the COVID era in the digital creative economy trade sectors, exemplified by platforms like Netflix and Spotify experiencing positive growth trends (Nurse, 2020). Furthermore, regions such as Latin America and the Caribbean witnessed a remarkable ten-fold increase in digital collections over the past five years, while the Asia-Pacific region demonstrated a significant 120% growth.

However, Nurse also points out the digital technology access disparity in Africa, highlighting the need for concerted efforts to bridge this gap and foster digital inclusivity and development across the continent (Nurse, 2020).

The research article titled "The Determinants of Creative Goods Exports: Evidence from Vietnam," authored by Chung Van Dong and Hoan Quang Truong, delves into the factors influencing creative goods exports from Vietnam, a developing nation, to the global market. The study employs a robust analysis framework, utilising the gravity model to elucidate the determinants of creative goods exports. An intriguing aspect of the methodology employed in this research is the utilisation of the gravity model, a powerful analytical tool for examining trade relationships between countries. Additionally, the article offers valuable insights by assessing the contribution of ASEAN countries' exports relative to GDP, a method that we will be adopting by recreating the approach for our research, with a focus on India. The findings of the study reveal Vietnam's significant strides in expanding its creative goods exports to the global market, with a notable emphasis on developed economies and the design sector (Dong & Truong, 2020). The analysis highlights the positive impact of economic scale and market development in both Vietnam and its trading partners, as well as the influence of higher education levels in trading partners, on Vietnam's creative goods exports. Conversely, cultural distance emerges as a significant hindrance to creative exports, although performing arts seem to be an exception to this trend (Dong & Truong, 2020). The implications of these findings underscore the importance of implementing policies to bolster Vietnam's creative goods exports. Key recommendations include measures to enhance access to foreign markets, foster the establishment of industrial zones, improve higher education institutions, and promote linkages between local suppliers and foreign enterprises (Dong & Truong, 2020). The findings of the study also unveil an

understanding of the factors influencing Vietnam's exports of creative goods. Specifically, the analysis highlights the adverse effects of variables such as cultural distance and exchange rates on the country's creative goods exports. This suggests that factors related to cultural differences and fluctuations in exchange rates pose significant challenges to Vietnam's ability to compete in the global market for creative goods (Dong & Truong, 2020). Moreover, the study sheds light on the intricate relationship between higher education and creative goods exports. While the education levels of trading partners are found to have a positive impact on Vietnam's exports, the country's own higher education variables demonstrate a negative correlation. This divergence in effect suggests a complex interplay of factors within Vietnam's higher education landscape, potentially indicating areas of stagnation or underdevelopment in the country's educational institutions (Dong & Truong, 2020). These insights underscore the importance of addressing structural challenges within Vietnam's economy and education system to foster growth and competitiveness in the creative goods sector. Strategic interventions aimed at enhancing educational quality, promoting innovation and entrepreneurship, and strengthening international partnerships can play a crucial role in overcoming barriers to creative goods exports and unlocking the full potential of Vietnam's creative economy. This research article holds particular relevance to our own investigation into India's creative economy trade. By offering insights into the determinants of creative goods exports, it provides valuable guidance for policymakers and stakeholders tasked with enhancing India's position in the global creative economy landscape. Informed decision-making informed by such research can pave the way for strategic interventions aimed at fostering growth and competitiveness in India's creative goods exports sector (Dong & Truong, 2020).

The article titled "Trade in Creative Services: Relatedness and Regional Specialization in the UK," authored by Patrizia Casadei, Enrico Vanino, and Neil Lee, provides valuable insights into the dynamics of creative service exports in the UK. This research holds particular relevance to our own investigation as it offers a comprehensive examination of patterns of transformation, geography, and industrial relatedness within the realm of creative service exports, using data from the Inquiry in International Trade in Services (ITIS) database. Over the past decade, creative services exports have witnessed significant growth in the UK (Casadei et al., 2023). However, the article elucidates pronounced patterns of geographical specialisation, both within the export of creative services and across non-creative services. Similarly, our research endeavours to unveil analogous patterns of beneficial specialisation within India, aiming to gain valuable insights into the country's potential gains in the realm of creative services. The methodology adopted in the study utilises the International Trade in Services Survey (ITIS) dataset, which offers comprehensive insights into UK firms' trade in services, as defined by the Office for National Statistics (ONS). By focusing on exports of services, defined as the sale of intangible commodities by UK-based entities to entities outside the UK, the authors offer a detailed analysis of the export landscape. The estimation of relatedness between creative services, other services, and manufacturing exports is a key aspect of the methodology, following the framework proposed by Breschi et al. (2003) based on co-occurrence analysis. This method measures the relatedness between two exporting activities by assessing their co-occurrence within the same local economic entity. Additionally, the authors calculate the revealed comparative advantage (RCA) of different regions based on various products. The results of the study reveal intriguing patterns of regional specialisation in creative service exports, each characterised by distinct geographies. For instance, only a select few regions exhibit high RCA

in copyrights, such as Cheshire, possibly attributable to a robust computer games sector, as well as Devon, Cumbria, and Inner London. Similarly, regions like Inner and Outer London, Lancashire, Leicestershire, Rutland, Northamptonshire, Hampshire, the Isle of Wight, and Devon exhibit strong RCA in advertising (Casadei et al., 2023). Moreover, regression models are framed to examine the role of relatedness between creative, other services, and manufacturing exports in shaping the emergence of new comparative advantages. The findings suggest a positive and significant relationship between relatedness density and the emergence of a comparative advantage in creative services (Casadei et al., 2023). Co-occurrence analysis further highlights sectors within creative services that exhibit high levels of relatedness with other creative, non-creative services, and manufacturing industries, indicating robust production relationships in terms of knowledge, inputs, or complementarities (Casadei et al., 2023). Overall, the research offers valuable insights into the intricate dynamics of creative service exports, providing a nuanced understanding of the factors driving regional specialisation and industrial relatedness in the UK. These insights hold significant implications for informed decision-making and strategic planning in our own research context, as we seek to unravel similar patterns and potential gains within India's creative goods sector (Casadei et al., 2023).

The research working paper, "Creative Trade for Human Development," authored by Patrick Kabanda, draws attention to the burgeoning expansion of international trade in creative goods and services in recent years. However, despite this upward trajectory, disparities persist, particularly among developing countries that possess abundant cultural wealth yet continue to lag behind in reaping the benefits of creative trade. Furthermore, women remain disproportionately marginalised in this realm, facing significant barriers to participation and advancement (Kabanda, 2016). To address these challenges and harness the full potential of creative trade for

human development, a multifaceted approach is imperative. The paper advocates for the implementation of a Women Artisan Trade Initiative aimed at empowering female artisans and entrepreneurs, thereby fostering inclusivity and gender equality within the creative economy (Kabanda, 2016). Moreover, the proposal to establish a cultural trade index serves as a valuable tool for assessing and monitoring the performance of countries in leveraging their cultural assets for economic development. By quantifying the contribution of cultural trade to national economies, policymakers can make informed decisions and formulate targeted interventions to maximise the benefits of creative trade. Additionally, the paper underscores the importance of developing appropriate intellectual property initiatives to safeguard the rights of creative practitioners and incentivize innovation and creativity. Strengthening intellectual property protection frameworks can create an enabling environment for the growth of creative industries, encouraging investment and fostering a culture of innovation. Furthermore, integrating creative trade into broader economic diversification strategies is essential for unlocking its transformative potential. By recognizing the intrinsic value of creative industries as drivers of economic growth and employment generation, governments can formulate policies and initiatives to nurture and support the creative sector as a key pillar of diversified and sustainable development.

The paper advocates for a holistic approach to expand creative trade for human development, encompassing initiatives to empower marginalised groups, enhance institutional capacity, and integrate creative industries into broader development agendas. By embracing these recommendations, countries can harness the transformative power of creative trade to foster inclusive and sustainable development outcomes for all (Kabanda, 2016).

2.3 RESEARCH GAP DERIVATION

The research gap identified after reviewing the relevant literature is that it has been observed that there are not many existing researches which have been carried out in context to India's creative goods trade specifically, and showing its relationship to the exponential growth of the country. It was also observed that there are few articles that show the scenario of India's creative goods trade but not in greater detail by using a variety of economic tools and indices

The existing research mainly focuses on creative goods trade shares and trends of its creative trade volume margins. There is no research with India's context which shows certain creative goods which India can specialise in to attain maximum benefits to gain from trade by showing this specific relationship with the exponential growth..

2.4 METHODOLOGY DERIVATION

Some of the articles revealed their methodological approaches which we can potentially use in our research, such as the usage of the explanatory analysis approach which some research articles like the "Trade in creative services: relatedness and regional specialisation in the UK" where they used regression analysis by testing their relatedness measurement claims (Casadei et al., 2023)**.** Another research like the "Trade in the Creative Sector: Comparing India with China, Brazil, and UK" utilised a variety of trade measurement tools for analysing trade trends and figures (SHABA & VERMEYLEN, 2015). The article "The determinants of creative goods exports: evidence from Vietnam" conducted their research based on exports relative to GDP (Dong & Truong, 2020), a method that we will be adopting by recreating the approach for our research, with a focus on India

CHAPTER

III

METHODOLOGY

CHAPTER 3: METHODOLOGY

3.1 RESEARCH METHODOLOGY

The research pertaining to “Unleashing Prosperity: The Dynamic Interplay Of Creative Goods Trade On India’s Exponential Growth” Will avail the necessary data mainly through secondary sources for its primary analysis in this research.

The area under study as suggested in the topic itself is in reference to India. The selected time frame for the study will be 2002-2021, since the creative goods portal is still a relatively newly introduced area of international trade and the data is only available for this time frame.

We will avail the necessary creative goods trade data from “UNCTADstat” which provides us with a complete separate classification for creative goods which different countries trade in.

The GDP level data which is the main component we are trying to study with reference to will be obtained from the World Bank’s website. Apart from these two variables, we are considering some other potential predictor variables which will potentially improve the significance of the tests and models which we will run in the analysis.

Some of the other predictor variables which we will be considering are, ‘Trade barriers’ with specific reference only to the barriers on the specific creative good products. Where we avail the trade barrier data from the World Integrated Trade Solutions (WITS) website. WITS specifically does not have a separate category just for Creative goods, but it contains every single digit code which comprises the creative goods category. The hierarchy list of creative goods digit codes is available on the UNCTADstat website, and provides us with a list of Harmonised system codes which comprise creative products. From WITS, the specific digits were manually selected and the data was processed for the analysis.

Other predictor variables in the research are the ‘Currency exchange rates’ which were obtained from UNCTADstat itself which is also another important predictor variable for the analysis. ‘Trade Openness’ is another variable which we will attain only after computation.

Before diving into the main analysis it is important to sort out a few aspects in the analysis as it could give us better insights into the main domain. For this, the intermediate step for the research would be to identify the top 10 trading partners of creative goods of India. This is important because It helps to narrow down the analysis and focus the available time capability and resources on the most relevant and impactful trading relationships. By identifying the top 10 trading partners, we can prioritise their efforts and explore deeper into understanding the dynamics of these key economic relationships. Analysing the top trading partners provides valuable insights into the geographic distribution of trade and the strategic significance of different regions or countries. This information can inform strategic decision-making and resource allocation, helping concerned authorities to identify opportunities and mitigate risks. This will help ease the analysis and sort out the data with the relevant objectives.

The research methodology which will be adopted in this research on India’s creative goods trade on India’s exponential growth will mainly adopt an exploratory and explanatory analytical approach because we primarily want to uncover patterns, trends, and relationships within the data. While we will also be adopting explanatory approach because as the title of the research suggests, we want to establish a causal relationship as well to understand the underlying factors or mechanisms driving a particular phenomenon or outcome, where in our case we want to estimate the predictor variables on the exponential growth of India to uncover the relationships it poses and the estimated contribution it has. For this separate approach we will be working on testing hypotheses, establishing causal relationships, and providing insights in the data.

The research is laying its ground when we create a comparative framework analysis with respect to India's top 10 export countries on the time periods of 2002-2021, which will mainly be a cross sectional study where we will see the trends in creative goods contributions on the exponential growth of India which we will discuss further in methodology design. Similarly, Predictive Models will be constructed mainly in support of objective 2 and partly objective 3, since this will help us avail insights into the potential solutions it can cater to the concerned authorities. This approach will also be further discussed in the methodology design.

In support of our objectives , primarily for objective 1, a variety of trade related tests will be conducted to validate the results where not only tests will be conducted but we will also be looking out for trends in the previous studies and existing data, which constitutes our exploratory approach in this research.

These trade related tests or indices will also help provide the research with appropriate conclusions which we will derive from specific tests like the 'Competitiveness index and the RCA index' which we will further discuss in the research design.

3.2 RESEARCH ANALYSIS DESIGN

In order to analyse the relevant data accounting for the feasibility of creative goods trade (Objective 1) , it is important to understand the various trends existing in the data and the statistics of the creative sector trade in general with the help of various trade related indices which would be appropriate to indicate India's creative trade scenario. This would give a clear picture in assessing whether India's terms of trade is good and contributes a lot to the trade sector, is profitable or even to see whether the sector is competitive enough to make strengthened trading strategies. All these measures would define the feasibility of India's creative sector trade. But before we proceed we need to first identify the top 10 creative goods trading partners of

India. The top 10 trading partners will be identified for each year from 2002-2021. This is because there are possibilities that a different country could enter the top 10 tier list, since every year trend is not the same. There will also be a comparison with the Rest of the world in some tests. In order to do so, the following trade related indices would be the most appropriate tools to be used.

- Dependence index – To observe with which countries and how open is India in depending on creative goods trade with other countries.
- Propensity index-to observe how likely India will involve themselves in participating in creative goods trade, with respect to exponential growth.
- Growth index-(Export/Import) to assess how much creative exports and imports have grown separately with each country over the years.
- Normalised trade balance- With respect to India's overall economic output
- Competitive index- Assess India's competitiveness in the creative goods trade, which will be useful to support objective 3 as well.
- Export/import shares of creative goods trade, year wise with each country.
- Revealed comparative advantage- Produce certain goods which they would certainly gain a lot from trading. This will be useful in the predictive modelling analysis required in objective 2 as well. This will be carried out by identifying top 3 goods while trading to the rest of the world and finding the Highest Revealed comparative advantage Product category in the Top 10 tier list for all the years 2002 to 2021.

The tools for analysing the above areas of trade related indices is primarily Microsoft Excel 2019. For the Purpose of the comparative framework analysis and predictive modelling, the software R Studio version 2023.12.1 will be used for our estimation.

3.3 COMPARATIVE FRAMEWORK ANALYSIS

In support of (objective 2)

The comparative framework analysis will help show the trends in the creative goods contribution to the exponential growth of India.

For this cross sectional study, each year separate regressions will be carried out to observe the contributions on Gdp of India for the years 2002-2021.

$$\text{India's GDP}_{t1} = \alpha 0_{t1} + \alpha 1(\text{Creative goods export values}_{t1}) + \alpha 2(\text{Currency Exchange rates}_{t1}) + \mu_{t1}$$

Where, GDP, Creative goods export values, currency exchange rates is in reference to time period 1, for example the year 2002.

In this multiple regression equation for the top 10 trading export countries, the variables Trade openness and Trade barriers have been ruled out because of the consistent multicollinearity problem arising in the regression analysis affecting the entire model as 'Not applicable'. However a time series analysis for the comparative framework analysis has also been estimated where the multicollinearity problem has a minimum influence because of the time series years. Due to the minimum influence of this problem we are able to consider the remaining predictor variables i.e Tariffs and Trade openness.

Results will be interpreted by comparing trend growth of exponential growth because of creative goods contributions.

3.4 PREDICTIVE MODELLING

In support of (Objective 3)

After undertaking the comparative framework analysis, a predictive modelling will support the comparative framework by answering "what would have been" scenario if India were to specialise in a particular creative good by which India could potentially gain from trade and would have a significant impact on GDP growth of the country.

$$\text{India's GDP}_{t1} = \alpha 0_{t1} + \alpha 1(\text{Specialized Creative goods}_{t1}) + \alpha 2(\text{Currency Exchange rates}_{t1}) + \mu_{t1}$$

For this predictive model, we take the highest advantaged good from the Revealed comparative advantage computation for all the 10 countries for 5 random years under study as the first predictor with a fair time interval gap. Similarly corresponding to the top 10 countries for the year under study we consider their respective currency exchange rates.

Again here in this model the tariffs and trade openness have been ruled out as multiple predictors because of the consistent multicollinearity problem and the perfect explanation of the model by the predictors. The problem has been minimally dealt with and proceeded with the estimation. However a time series analysis for the predictive model has also been estimated where the multicollinearity problem has a minimum influence because of the time series years. Due to the minimum influence of this problem we are able to consider the remaining predictor variables i.e Tariffs and Trade openness. The interpretations will mainly be a explanatory description of interpretations of the above analysis by pointing out the strong areas of the creative goods trade and why it is important for institutions and government to aid these specific creative goods sectors, and suggest the same on how these institutions can optimally allocate resources and

strategies for further advancement in the creative goods trade, while at the same time majorly contributing to the exponential growth of India.

3.5 DECISION RULE FOR THE TESTS

The decision rules for validating the regression models for Comparative framework analysis and for the predictive models are the following.

- T tests: Where we will be individually testing the statistical significance of the predictor variables in our model. We conclude that if the Critical T values are higher than the predictor variables T values, then we are to conclude that our variable is not statistically significant in the model and Vice versa.
- F tests: Here we will be validating the overall statistical significance of the model. Similar to the T test, we conclude that if the Critical F value is higher than the model's T F value, then we are to conclude that our model as a whole is not statistically significant and Vice versa.
- Chances of committing a type 1 or type 2 error: Type 1 error occurs when a true null hypothesis is incorrectly rejected, while Type 2 error occurs when a false null hypothesis is incorrectly retained. We therefore want to avoid concluding with a negative result. Our decision rule for this test is that we reject the null hypothesis if the p-value is less than or equal to the significance level, which in our research we have selected a significance of $\alpha = 0.05$).

In the case of objective 1, we will be basically assessing the trends and making decisions on the trend rates to derive conclusions on the feasibility of the trade of creative goods in India.

CHAPTER

IV

ANALYSIS & CONCLUSION

CHAPTER 4: ANALYSIS & CONCLUSION

In examining the multifaceted relationship between creative economy trade and India's remarkable trajectory of growth, this analysis chapter delves into the intricate dynamics driving the nation's economic landscape. The relevant creative economy trade data for India and other partner country data for the time frame of 2002 to 2021 was obtained from official UNCTADstat website. Whereas the GDP level data for the years 2002 to 2021 was obtained from the official website of the World Bank. Other complementary data required for analysis in the comparative framework analysis and in the predictive modelling like Trade barrier data for each product category was obtained from the World Integrated Trade Solutions (WITS) website, Currency exchange rate data from the UNCTADstat.

4.1 TOP 10 TRADING PARTNERS (EXPORTS YEAR WISE)

Before testing of the claims it is essential for the systematic identification of a founding base for the regression analysis. One of such is identifying the top creative goods trading partners of India. The top 10 trading countries were identified for each consecutive year using the necessary annual creative export data from UNCTADstat.

The top 10 trading countries were identified for each year because each year is treated separately since there is a high possibility that the trading country's export values change over a period of time. The export values are measured in US dollars at current prices in millions.

Tables 4.1. India's Top 10 exports in the year 2002

Top 10 trading partners (2002)	**Export values (US dollars at current prices in millions)**
United States of America	1330
United Kingdom	338
United Arab Emirates	313
Germany	241
Singapore	133
Italy	112
Spain	71
France	68
China, Hong Kong SAR	61
Netherlands (Kingdom of the)	57

Source: Based on data from UNCTADstat.

Table 4.2. India's Top 10 exports in the year 2003

Top 10 trading partners (2003)	**Export values (US dollars at current prices in millions)**
United States of America	1662
United Arab Emirates	492
United Kingdom	406
Germany	282
Italy	164
Spain	140
Singapore	128
France	109
China, Hong Kong SAR	96

Top 10 trading partners (2003)	Export values (US dollars at current prices in millions)
Netherlands (Kingdom of the)	72

Source: Based on data from UNCTADstat.

Table 4.3. India's Top 10 exports in the year 2004

Top 10 trading partners (2004)	Export values (US dollars at current prices in millions)
United States of America	2256
United Arab Emirates	1542
United Kingdom	470
Germany	351
Italy	210
Spain	186
France	151
Singapore	142
China, Hong Kong SAR	116
Netherlands (Kingdom of the)	91

Source: Based on data from UNCTADstat.

Table 4.4. India's Top 10 exports in the year 2005

Top 10 trading partners (2005)	Export values (US dollars at current prices in millions)
United States of America	2556
United Arab Emirates	1686
United Kingdom	529
Germany	421

Italy	239
Spain	224
China, Hong Kong SAR	190
France	165
Singapore	136
Netherlands (Kingdom of the)	103

Source: Based on data from UNCTADstat.

Table 4.5. India's Top 10 exports in the year 2006

Top 10 trading partners (2006)	**Export values(US dollars at current prices in millions)**
United States of America	3183
United Arab Emirates	2197
United Kingdom	577
Germany	453
Italy	253
Spain	233
China, Hong Kong SAR	218
France	176
Singapore	130
Netherlands (Kingdom of the)	111

Source: Based on data from UNCTADstat.

Table 4.6. India's Top 10 exports in the year 2007

Top 10 trading partners (2007)	**Export values (US dollars at current prices in millions)**
United States of America	3005

United Arab Emirates	2387
United Kingdom	691
Germany	465
China, Hong Kong SAR	369
Singapore	278
Italy	276
Spain	241
France	200
Australia	123

Source: Based on data from UNCTADstat.

Table 4.7. India's Top 10 exports in the year 2008

Top 10 trading partners (2008)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	2399
United States of America	2282
United Kingdom	693
Germany	520
China, Hong Kong SAR	455
Italy	305
Spain	240
France	235
Singapore	207
Australia	145

Source: Based on data from UNCTADstat.

Table 4.8. India's Top 10 exports in the year 2009

Top 10 trading partners (2009)	**Export values(US dollars at current prices in millions)**
United Arab Emirates	9778
United States of America	2597
United Kingdom	764
China, Hong Kong SAR	660
Germany	659
Singapore	389
China	377
France	275
Italy	267
Spain	231

Source: Based on data from UNCTADstat.

Table 4.9. India's Top 10 exports in the year 2010

Top 10 trading partners (2010)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	5760
United States of America	2429
China, Hong Kong SAR	1128
United Kingdom	680
Germany	586
Singapore	347
France	284
Italy	247
Netherlands (Kingdom of the)	239

Spain	227

Source: Based on data from UNCTADstat.

Table 4.10. India's top 10 exports in the year 2011

Top 10 trading partners (2011)	**Export values(US dollars at current prices in millions)**
United Arab Emirates	11263
United States of America	2843
China, Hong Kong SAR	1990
United Kingdom	804
Germany	771
Singapore	523
France	342
Italy	322
Spain	291
Netherlands (Kingdom of the)	282

Source: Based on data from UNCTADstat.

Table 4.11. India's Top 10 exports in the year 2012

Top 10 trading partners (2012)	**Export values(US dollars at current prices in millions)**
United Arab Emirates	14560
United States of America	3124
China, Hong Kong SAR	2463
United Kingdom	876
Germany	697

Singapore	384
France	342
Australia	269
Italy	266
Spain	255

Source: Based on data from UNCTADstat.

Table 4.12. India's Top 10 exports in the year 2013

Top 10 trading partners (2013)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	6622
United States of America	3387
China, Hong Kong SAR	1623
United Kingdom	925
Germany	796
France	385
Singapore	385
Italy	318
Australia	291
Belgium	280

Source: Based on data from UNCTADstat.

Table 4.13. India's Top 10 exports in the year 2014

Top 10 trading partners (2014)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	7012
United States of America	3443
China, Hong Kong SAR	2795

United Kingdom	1016
Germany	749
France	358
Singapore	346
Spain	308
Italy	304
Australia	267

Source: Based on data from UNCTADstat.

Table 4.14. India's Top 10 exports in the year 2015

Top 10 trading partners (2015)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	4953
United States of America	3626
China, Hong Kong SAR	2667
United Kingdom	956
Germany	730
Spain	312
France	296
Italy	290
Australia	278
Netherlands (Kingdom of the)	201

Source: Based on data from UNCTADstat.

Table 4.15. India's Top 10 exports in the year 2016

Top 10 trading partners (2016)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	7061
United States of America	4014
China, Hong Kong SAR	2984
United Kingdom	958
Germany	709
France	313
Italy	297
Spain	297
Australia	275
Singapore	250

Source: Based on data from UNCTADstat.

Table 4.16. India's Top 10 exports in the year 2017

Top 10 trading partners (2017)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	6194
United States of America	4283
China, Hong Kong SAR	3594
United Kingdom	789
Germany	717
France	336
Italy	314
Australia	296
Singapore	279

Spain	266

Source: Based on data from UNCTADstat.

Table 4.17. India's Top 10 exports in the year 2018

Top 10 trading partners (2018)	**Export values (US dollars at current prices in millions)**
United Arab Emirates	8141
United States of America	4009
China, Hong Kong SAR	1164
United Kingdom	1094
Germany	642
Singapore	379
France	361
Italy	346
Australia	312
Spain	269

Source: Based on data from UNCTADstat.

Table 4.18. India's Top 10 exports in the year 2019

Top 10 trading partners (2019)	**Export values(US dollars at current prices in millions)**
United Arab Emirates	8858
United States of America	4261
China, Hong Kong SAR	1675
United Kingdom	840
Germany	661
Singapore	430
France	383

Italy	314
Australia	304
Spain	273

Source: Based on data from UNCTADstat.

Table 4.19. India's Top 10 exports in the year 2020

Top 10 trading partners (2020)	**Export values (US dollars at current prices in millions)**
United States of America	3891
United Arab Emirates	2597
China, Hong Kong SAR	2439
United Kingdom	600
Germany	540
France	354
Netherlands (Kingdom of the)	291
Australia	282
Italy	222
Singapore	214

Source: Based on data from UNCTADstat.

Table 4.20. India's Top 10 exports in the year 2021

Top 10 trading partners (2021)	**Export values (US dollars at current prices in millions)**
United States of America	6749
United Arab Emirates	3130
China, Hong Kong SAR	2006
United Kingdom	913
Germany	628

Singapore	560
France	509
Australia	378
Netherlands (Kingdom of the)	372
canada	252

Source: Based on data from UNCTADstat.

It is observed in the Top 10 trading partners tables that India has constantly greatly exported creative goods to the United States of America, United Kingdom, China Hong Kong SAR, Germany and France over the years 2002 to 2021, Where the United States of America has been India's largest exporter throughout the years. Various other countries have also been entering the Top 10 tier over a period of time as India expands its creative economy and its trade to other countries in the years following 2007. This is a distinct trait that India has indeed improvised its export strategies in the creative sector and export flows with a view of economic growth.

4.2 INDIA'S CREATIVE GOODS TRADE AT A GLANCE

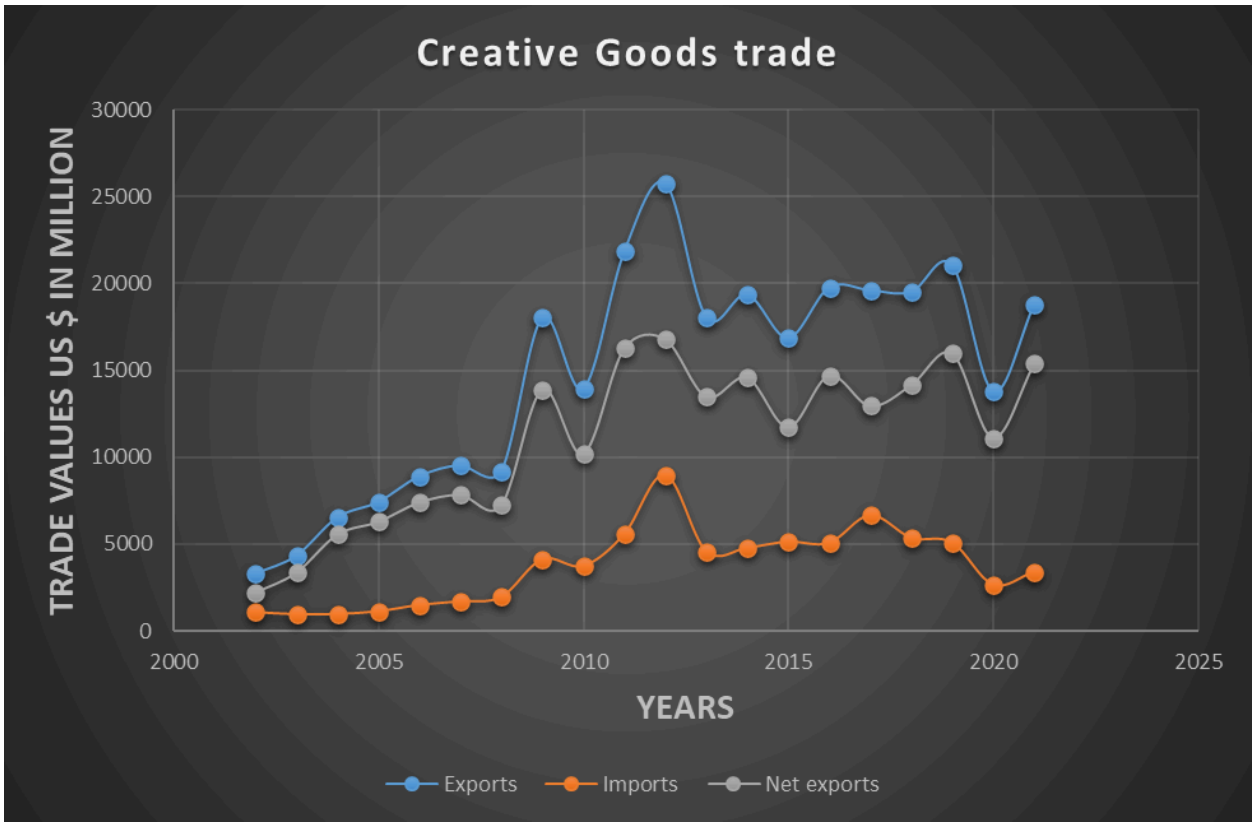

Figure 4.1 India's Total creative goods trade Source: Based on data from UNCTADstat.

As seen in figure 4.1, Both total creative goods exports and imports have shown a general upward trend over the years, indicating growth in international trade activity for creative goods. This suggests a growing demand for creative products and increased participation of India in creative goods international trade. The net exports (exports minus imports) of creative goods have generally been positive, indicating that India has been a net exporter of creative goods. However, there are fluctuations in the magnitude of net exports from year to year. For example, there are significant increases in net exports in certain years for example, 2009, 2011, 2012, indicating strong export performance, while in other years, the net exports decrease, for example, 2010, 2013, 2015.

4.3 TESTS FOR OBJECTIVE 1

The first objective in this research is to "To assess the feasibility of the creative economy trade in India". In order to analyse the relevant data accounting for the feasibility of creative goods Trade, it is important to understand the various stats of the creative sector trade in general with the help of various trade related indices which would be appropriate to indicate India's creative trade scenario. This would give a clear picture in assessing whether India's terms of trade is good and whether it contributes a lot to the trade sector, and also to create trends to assess whether it is profitable, or even to see whether the sector is competitive enough to make strengthened trading strategies. All these measures would define the feasibility of India's creative sector trade.

In order to do so, the following trade related indices would be the most appropriate tools to be used.

- Dependence index – To observe with which countries and how open is India in depending on creative goods trade with other countries.
- Propensity index- to see how likely India will involve themselves in participating in creative goods trade, with respect to exponential growth.
- Growth index- (Export/Import) to assess how much creative exports and imports have grown separately with each country over the years.
- Normalised trade balance- With respect to India's overall economic output
- Competitive index- Assess India's competitiveness in the creative goods trade, which will be useful to support objective 3 as well.
- Export/import shares of creative goods trade, year wise with each country.

- Revealed comparative advantage- Produce certain goods which they would certainly gain a lot from trading. This will be useful in the predictive modelling analysis required in objective 2 as well. This will be carried out by identifying top 3 goods while trading to the rest of the world and finding the Highest Revealed comparative advantage Product category in the Top 10 tier list for all the years 2002 to 2021.

The hypothesis for the analysis of objective 1 is,

H0: There is no feasibility for the trading of creative goods in India.

H1: There is feasibility for the trading of creative goods in India.

4.3.1 Trade dependence index results

The trade dependence index basically is a measure of the importance of international trade in the overall economy, but here in this research it is used as a tool to capture an aspect of international trade which is the creative goods trade. This index gives us an indication of the degree to which an economy is open to trade, subject to some limitations (Mikić & Gilbert, 2007).

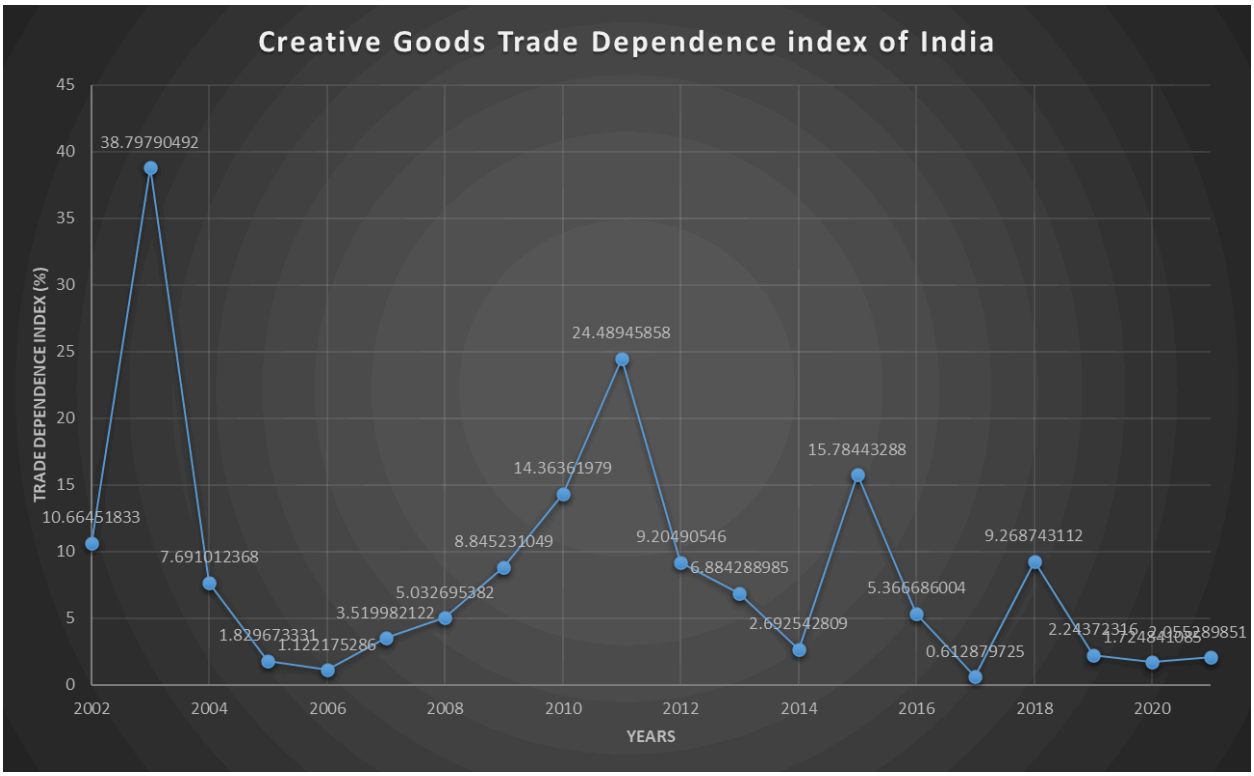

Figure 4.2 India's Trade Dependence Index trend (in %)
Source: Based on Trade data from UNCTADstat and GDP from World Bank.

Trade dependence index is measured by taking the total creative goods trade (exports+imports) as a percentage of GDP. The subscript 't1' here is in reference to time period 1, which is 2002 in this research.

$$= \frac{(\text{Sum of creative goods Exports t1} + \text{Sum of Creative goods imports t1})}{\text{GDP t1}} \times 100$$

Trade dependence index takes values between 0 to ∞.

As seen in Figure 4.2, It is observed that India has gradually reduced its openness or dependence on creative goods trading over a period of time. It is observed that in 2003, 2011, and 2015, stand out with notably higher Trade Dependence Index values. These years suggest

periods of relatively higher dependence on trade in creative goods, possibly driven by factors such as increased export volumes, changes in trade policies, or shifts in global market dynamics. Conversely, there are years with lower Trade Dependence Index values, such as 2005, 2006, and 2017, India has been showing a reduction in its trade dependence index as there are other sectors which were on a rise which were more competitive and doing well than the creative sector in India. While there are fluctuations, the Trade Dependence Index values also exhibit certain trends over time. For example, there appears to be a general increase in trade dependence from 2002 to 2011, followed by fluctuations and a subsequent decrease in trade dependence in later years. A gradual reduction here in this case does not necessarily mean the sector is not doing well, but rather it could be thought of as a comparative advantage strategy which India is following to maximise to gain from trade with other sectors as well, while balancing the trade in creative goods as well. This index to some extent does show that there is still scope for creative goods trading in India.

4.3.2 Export propensity index results

The Export Propensity index is basically a measure which shows the overall degree of reliance of domestic producers on foreign markets. It is similar to the trade dependence index, but provides a better indicator of providing insights into the export orientation of countries, industries, or firms, helping policymakers, researchers, and businesses understand patterns of international trade and identify factors driving export performance (Mikić & Gilbert, 2007). Here in this research this index is used to see how likely India will involve themselves in participating in creative goods trade, with respect to exponential growth.. Export propensity index is calculated as the ratio of exports to GDP, which is defined as a percentage.The Export Propensity

index takes values in the form of a percentage and ranges from 0 to 100. Where zero implies no exports, and 100 implies with all domestic production exported.

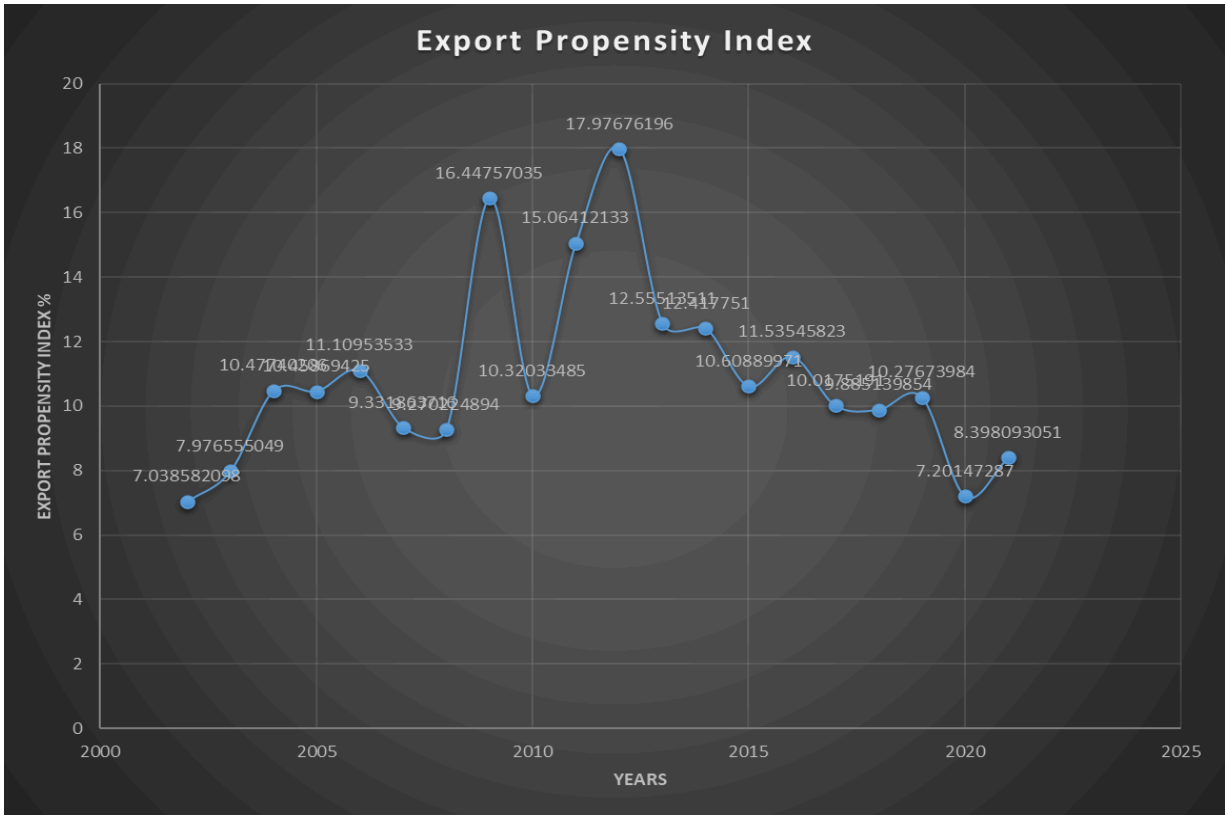

Figure 4.3 India's Export Propensity Index (in %)
Source: Based on Trade data from UNCTADstat and GDP from World Bank, computed by author.

The export propensity index can be calculated using the below formula

$$\text{Export Propensity Index} = \frac{\text{Sum of Exports t1}}{\text{GDP t1}} \text{ X100}$$

It has been observed in figure 4.3, that India's exports propensity has been taking gradual increasing cyclical turns. There is notable variability in India's export Propensity of creative goods over the years, as indicated by the fluctuating Export Propensity Index values. Some years stand out with higher Export Propensity index values, suggesting periods of increased export propensity for India's creative goods. Notable peaks include 2009, 2011, and 2012, where the

Export Propensity index values are significantly higher compared to surrounding years. While there are fluctuations, there also appears to be a general trend of fluctuating export intensity over time, with periods of both increase and decrease in Export Propensity index values. In more recent years, particularly from 2015 to 2019, the Export Propensity index values appear relatively stable, hovering around the range of 10 to 12. This suggests a level of consistency in India's export propensity for creative goods during this period. The variability in export intensity may reflect the influence of various external factors such as changes in global demand, economic conditions, trade policies, and industry dynamics on India's creative goods trade. The trends at some extent also implies that there is scope for creative goods trading Despite fluctuations, the data shows that India has been consistently engaged in exporting creative goods over the years. This indicates that there is a level of interest and capability within India's creative industries to participate in international trade. The years with notably higher Export Propensity index values, such as 2009, 2011, and 2012, suggest periods of increased export propensity for India's creative goods. This indicates that there are certain periods where India's creative industries experience higher demand or are more competitive in international markets. In more recent years, the Export Propensity index values have remained relatively stable, indicating a consistent level of export propensity for India's creative goods. This stability suggests that there is a sustained interest and capacity for creative goods trading in India. The fluctuations in export intensity may also reflect changes in global market conditions and demand for creative goods. As the global economy evolves and consumer preferences shift, there are opportunities for Indian creative industries to tap into international markets and expand their export activities.

4.3.3 Growth rate of exports index results

The Growth rate of exports index is an indicator used when assessing the progress of an economy in any area of economic activity (Mikić & Gilbert, 2007). In this research this tool is appropriate as it can be used to assess how much creative exports or imports have grown over the years. In this research we are more concerned about the creative trading activities which can help boost the exponential growth rather than checking upon how much has gone out (imports) to imbalance the terms of trade of India. The growth rate of exports index is calculated using the below formula

$$\text{Growth Rate} = \frac{(\text{Exports } t2 - \text{Exports } t1)}{\text{Exports } t1} \times 100$$

This formula helps to provide insights into the annual percentage increase or decrease in India's creative goods exports over time. The growth rate is a percentage. It can take a value between -100 per cent (if trade ceases) and $+\infty$. A value of zero indicates that the value of trade has remained constant.

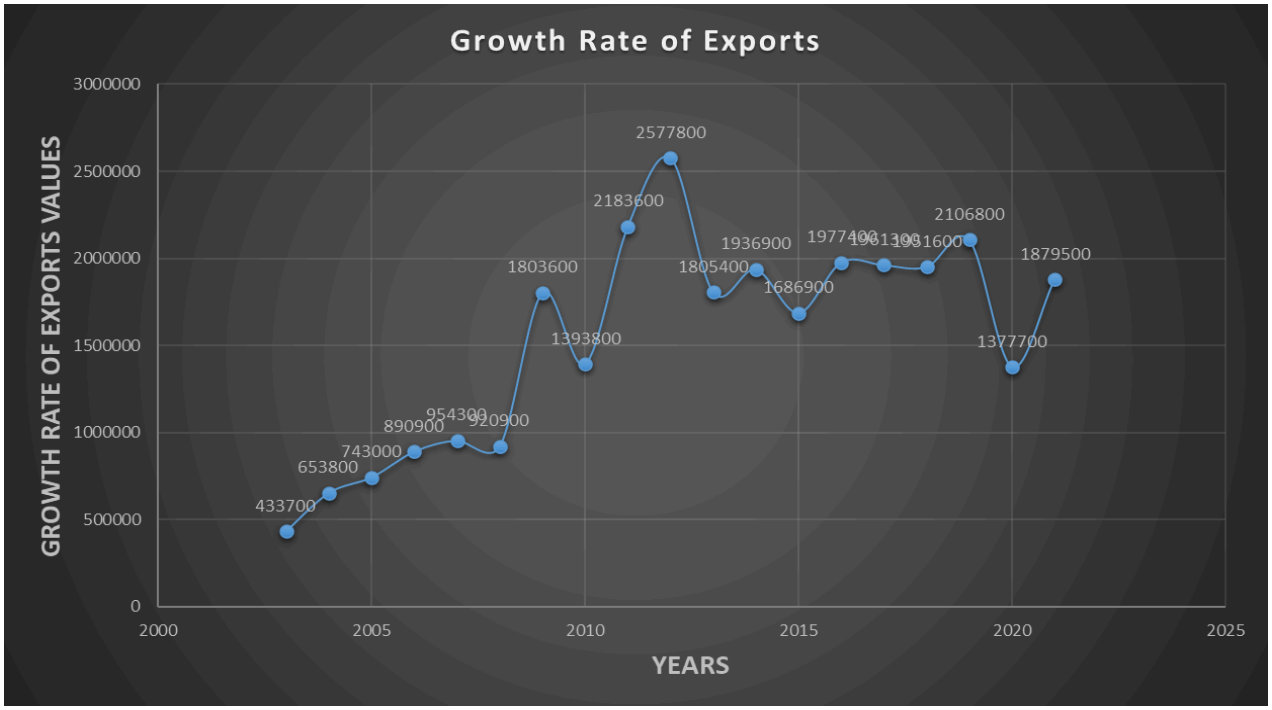

Figure 4.4 India's Growth rate of exports trend. (in %)
Source: Based on Trade data from UNCTADstat, computed by author.

Based on the visualisation in figure 4.4, it is observed that India's Growth rate of exports has seen positive values which indicate that India's exports have generally been increasing over the years. This suggests a positive trend in export activity, reflecting growth and expansion in India's export market. While there is an overall trend of export growth, the growth rates vary from year to year. Some years show higher growth rates, indicating periods of rapid expansion in exports, while others show lower growth rates, suggesting slower growth or stability in export activity. Years such as 2009, 2011, and 2012 stand out with notably higher Growth Rate of Export values, indicating significant increases in exports during those years. These periods of high growth may be attributed to various factors such as increased demand, improved competitiveness, or favourable market or economic conditions. There are fluctuations in Growth rate of exports values from year to year, reflecting the influence of factors such as economic conditions, global market trends, policy changes, and external shocks on export growth. These fluctuations may

highlight the dynamic nature of India's export market and the need for adaptability and resilience in export-oriented industries. In more recent years, the Growth rate of exports shows a mixed pattern, with some years exhibiting relatively high growth rates, for example in 2021, while others show lower growth rates. This suggests that India's export growth may have experienced some volatility or moderation in recent years, influenced by various domestic and global factors.

Despite fluctuations, the overall trend of positive growth in creative goods exports indicates the long-term potential and resilience of India's export sector. This signifies that there is indeed scope for creative goods trading in India. Continued efforts to enhance competitiveness, diversify and strategize creative export markets, and address structural challenges can help sustain export growth.

4.3.4 Normalised trade balance index results

The normalised trade balance index is a measure that returns the balance remaining after a country makes trade transactions with the rest of the world (Mikić & Gilbert, 2007). This tool is appropriate for this objective because it can be used to portray India’s overall economic output by providing a standardised figure on whether the creative goods trade in the respective years is in a deficit or surplus. Generally it provides a measure of the relative magnitude of the trade surplus or deficit compared to the total trade volume.. It provides a normalised or standardised view of the trade balance, taking into account the country's economic scale.

The normalised trade balance is calculated by using the following formula

$$\text{Normalised Trade Balance} = \frac{\text{Creative Goods Exports - Creative goods Imports}}{\text{Creative Goods Exports + Creative goods imports}}$$

The index range is between -1 and +1, which allows unbiased comparisons across time, countries and sectors. A value of zero indicates trade balance. A positive value indicates a trade surplus in the creative sector trade (exports exceed imports) and negative value indicates a trade deficit in the creative sector trade (imports exceed exports).

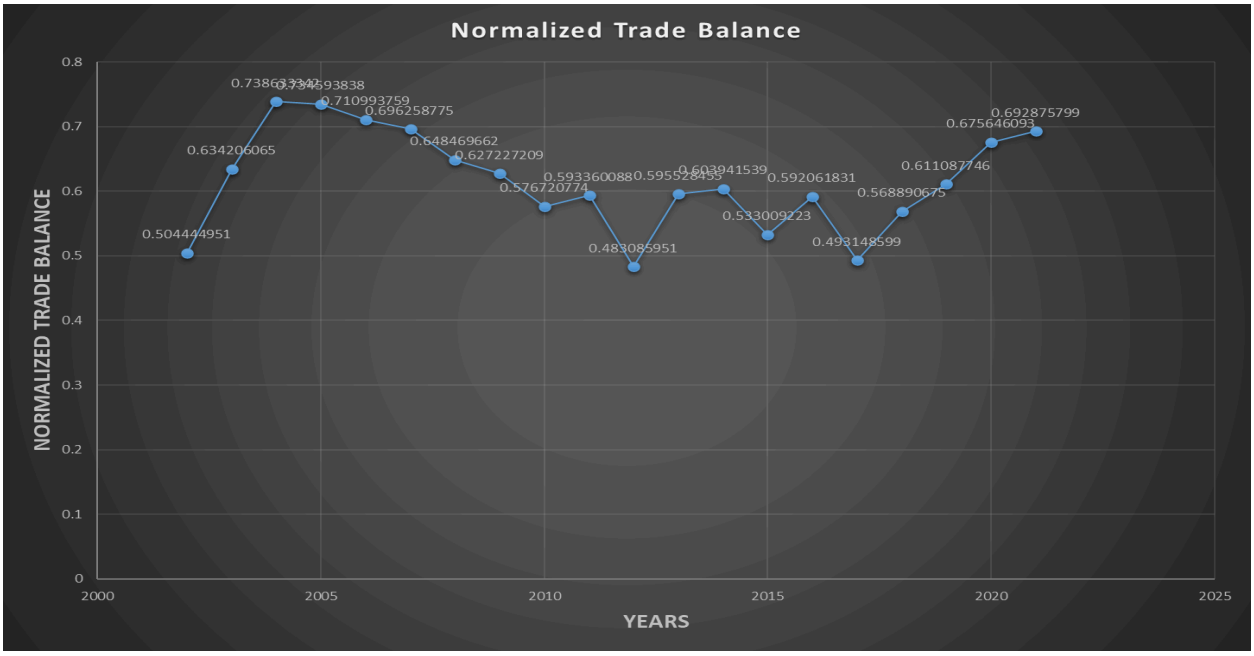

Figure 4.5 India's Normalised Trade Balance trend (Ratio)
Source: Based on Trade data from UNCTADstat, computed by author.

Figure 4.5, shows that the Normalised Trade Balance for the creative goods trade of India appears to fluctuate within a relatively narrow range over the years. This suggests a degree of stability in India's trade balance when normalised by the total trade volume. Despite the fluctuations, the Normalised Trade Balance values of the creative goods trade generally remain positive, indicating that India tends to have a trade surplus when considering the total trade volume as seen in the trend. This suggests that India exports more creative goods than it imports, contributing positively to its overall trade balance. The consistently positive Normalised Trade Balance values for the respective years suggest that India's creative goods trade position may be relatively strong compared to its total creative goods trade volume. This could indicate a

competitive creative goods export sector, strong international demand for Indian creative goods. While the overall trend of the NTB values is positive, there are variations from year to year. Some years show slightly higher NTB values, indicating stronger trade surpluses, while others show slightly lower values.

Fluctuations in the Normalised Trade Balance values may be influenced by various economic factors such as changes in global demand, currency exchange rates, trade policies. Analysing these factors alongside the Normalised Trade Balance values can provide insights into the drivers of India's creative trade balance dynamics which will be further looked at in the comparative framework analysis. Monitoring changes in the NTB values over time can help assess the long-term sustainability of India's creative goods trade position and its economic resilience. Consistently positive Normalised Trade Balance values suggest a favourable trade position, implying greater scope for the trade of creative goods. The trade surplus in the creative goods sector indicates opportunities for growth, expansion, and competitiveness in India's creative industries, positioning them favourably in the global market for creative goods.

4.3.5 Competitiveness index results

The Competitiveness Index can be a valuable tool in assessing and enhancing India's position in the global market for creative goods. It assesses the ability of a country to compete effectively in international markets. It takes into account various factors such as economic performance, productivity, innovation and institutions to evaluate a country's competitiveness. Basically the competitiveness index is an indirect measure of international market power, evaluated through a country’s share of world markets in selected export categories (Mikić & Gilbert, 2007).

The competitiveness Index can be used to assess India's competitiveness relative to other countries in the production and export of creative goods. The index can be calculated using the following formula.

$$\text{Competitiveness index} = \frac{\text{India's total export of a Product i with country A}}{\text{India's total export of product i with Rest of the world}}$$

In this analysis for the competitiveness index of India, the countries at play here are the Top 10 trading partners for each year respectively.

- Product i here refers to a particular product being assessed to observe how competitive the product is.
- Country A refers to a particular country being assessed with reference to.
- Rest of the world here implies India's export of a particular product with all the partner countries.

The competitiveness index Takes a value between 0 and 100 percent, with higher values indicating greater market power of the country in question.

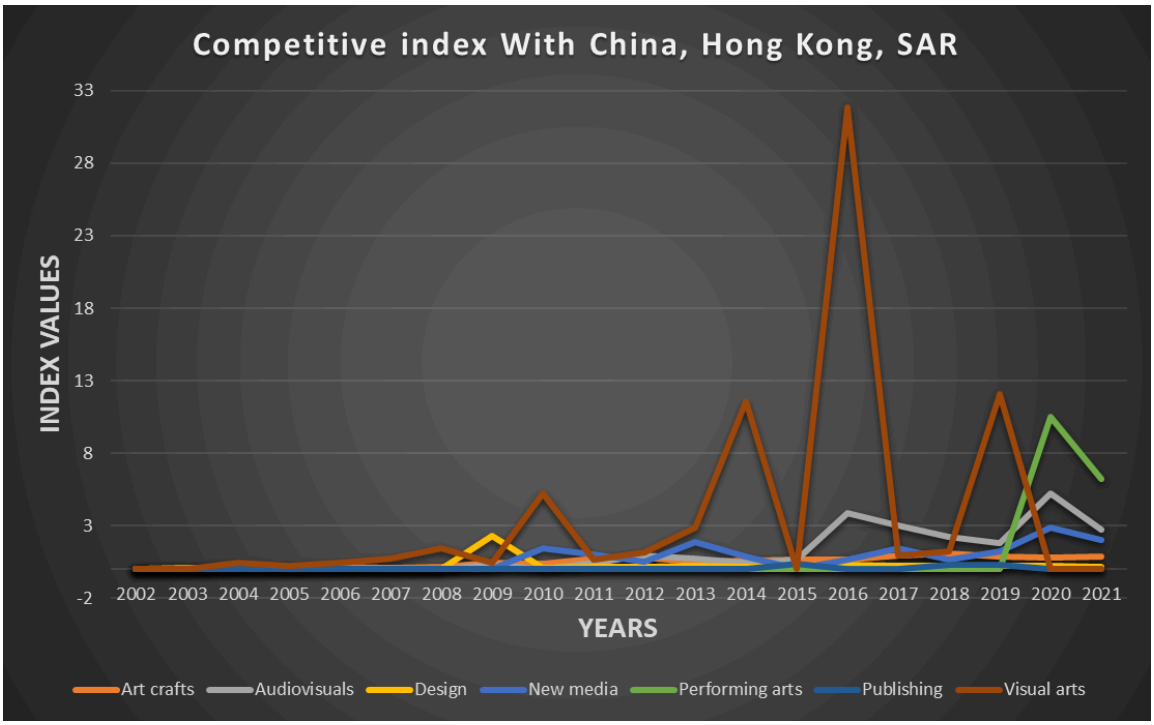

Figure 4.6 India's Competitiveness index trend with China Hong Kong SAR (in %)
Source: Based on Trade data from UNCTADstat.

Figure 4.6 shows the following,

India's competitiveness index in the art crafts category shows a fluctuating trend over the years. There are periods of moderate competitiveness, followed by increases in competitiveness, particularly from 2009 onwards. This suggests that India's competitiveness in art crafts relative to China has strengthened over time, with notable improvements in the 2010s. India's competitiveness index in the audiovisuals category exhibits a similar pattern of fluctuation, with periods of low competitiveness in the early 2010s followed by significant increases in competitiveness in the later years. This indicates improvements in India's competitiveness in audiovisuals compared to China, particularly from around 2013 onwards. India's competitiveness index values in the design category show a relatively stable trend over the years, with modest levels of competitiveness compared to China. There are slight fluctuations, but overall, India's competitiveness in design appears to remain consistent over the period. India's competitiveness

index in the new media category displays fluctuations, with periods of low competitiveness followed by increases in competitiveness in the later years. This suggests that India's competitiveness in new media relative to China has improved over time, particularly from around 2013 onwards. India's competitiveness index values in the performing arts category are relatively low compared to other categories. However, there is a notable increase in competitiveness in the later years, particularly from 2019 onwards. This indicates a strengthening of India's competitiveness in performing arts compared to China in recent years.

India's competitiveness index in the publishing category is generally zero across the analysed period, suggesting limited competitiveness. India's competitiveness index values in the visual arts category show significant fluctuations, with periods of moderate competitiveness interspersed with spikes in competitiveness, particularly in the later years. This suggests improvements in India's competitiveness in visual arts.

Overall it is noted that Visual Arts is India's highest competitive product with China Hong Kong SAR as depicted in the index.

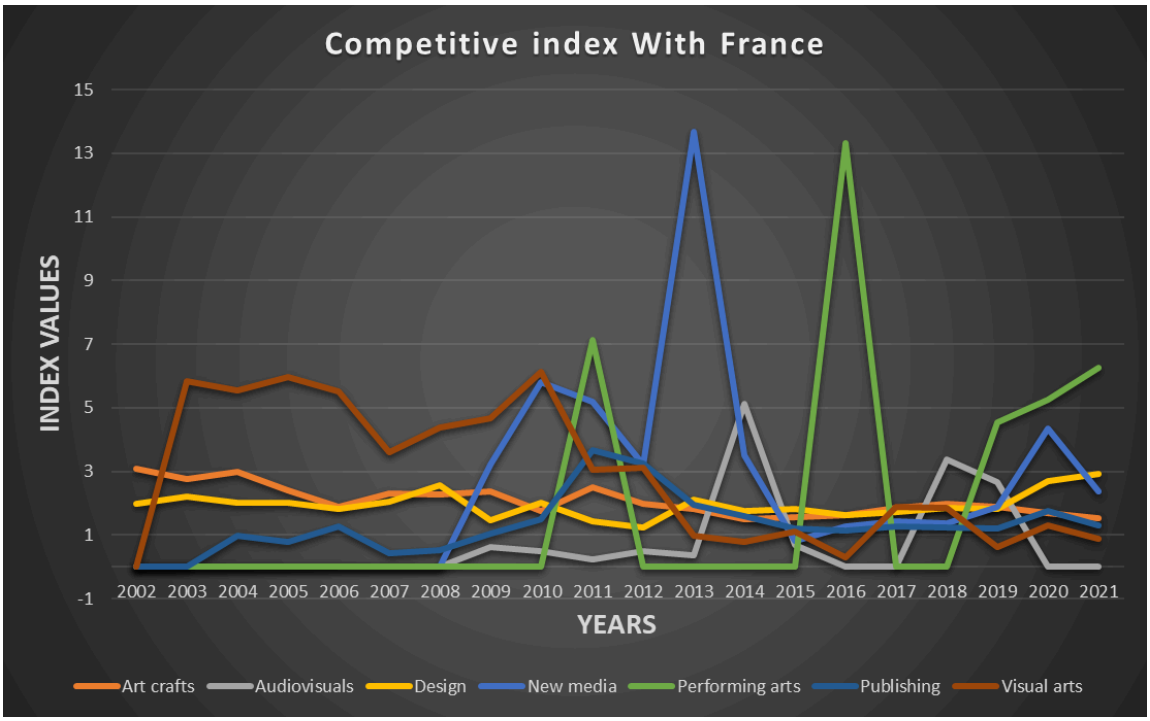

Figure 4.7 India's competitiveness index trend with France. (in %)
Source: Based on Trade data from UNCTADstat.

In figure 4.7, India's competitiveness index values in the art crafts category show fluctuations over the years. This indicates varying levels of competitiveness compared to France in the art crafts sector. India's competitiveness index values in the audiovisuals category start from zero in earlier years but show significant fluctuations in later years, with some values exceeding 5.0%. This suggests that India's competitiveness in audiovisuals compared to France has varied considerably, with notable improvements in recent years. India's competitiveness index values in the design category also display fluctuations over time. There are periods of moderate competitiveness, indicating varying levels of competitiveness compared to France in the design sector. India's competitiveness index values in the new media category show fluctuations, with some values exceeding 5.0 % in later years. This suggests that India's competitiveness in new media compared to France has improved over time, with significant fluctuations in competitiveness.

India's competitiveness index values in the performing arts category are generally low or zero, with occasional spikes in competitiveness in some years. This indicates limited competitiveness India's competitiveness index values in the publishing category exhibit fluctuations over time, ranging from around 1.0% to 3.0%. There are periods of moderate competitiveness. India's competitiveness index values in the visual arts category show fluctuations over time, ranging from around 0.3% to 6.0%. There are periods of moderate competitiveness, suggesting varying levels of competitiveness.

Overall it is noted that Art Crafts is India's highest competitive product with France as depicted in the index.

Figure 4.8 India’s competitiveness index trend with Germany (in %)
Source: Based on Trade data from UNCTADstat.

In the figure 4.8, India's competitiveness index values in the art crafts category show fluctuations over the years, starting from around 4.7% in 2021 to over 13% in earlier years. This

indicates varying levels of competitiveness. India's competitiveness index values in the audiovisuals category start from zero in earlier years but show significant fluctuations in later years, with some values exceeding 9.8% in 2019. This suggests that India's competitiveness in audiovisuals compared to Germany has varied considerably, with notable improvements in recent years. India's competitiveness index values in the design category also display fluctuations over time, ranging from around 2.7% to over 6.4%. There are periods of moderate competitiveness, indicating varying levels of competitiveness compared to Germany in the design sector.
India's competitiveness index values in the new media category show fluctuations, with some values exceeding 12.5% in later years. This suggests that India's competitiveness in new media compared to Germany has improved over time. India's competitiveness index values in the performing arts category are generally low, with occasional spikes in competitiveness in some years. This indicates limited competitiveness. India's competitiveness index values in the publishing category exhibit moderate fluctuations over time, ranging from around 0.6% to over 3.3%. India's competitiveness index values in the visual arts category show fluctuations over time, ranging from around 1.2% to over 9.0%. There are periods of moderate competitiveness, suggesting varying levels of competitiveness

Overall it is noted that Art Crafts is India's highest competitive product as depicted in the index.

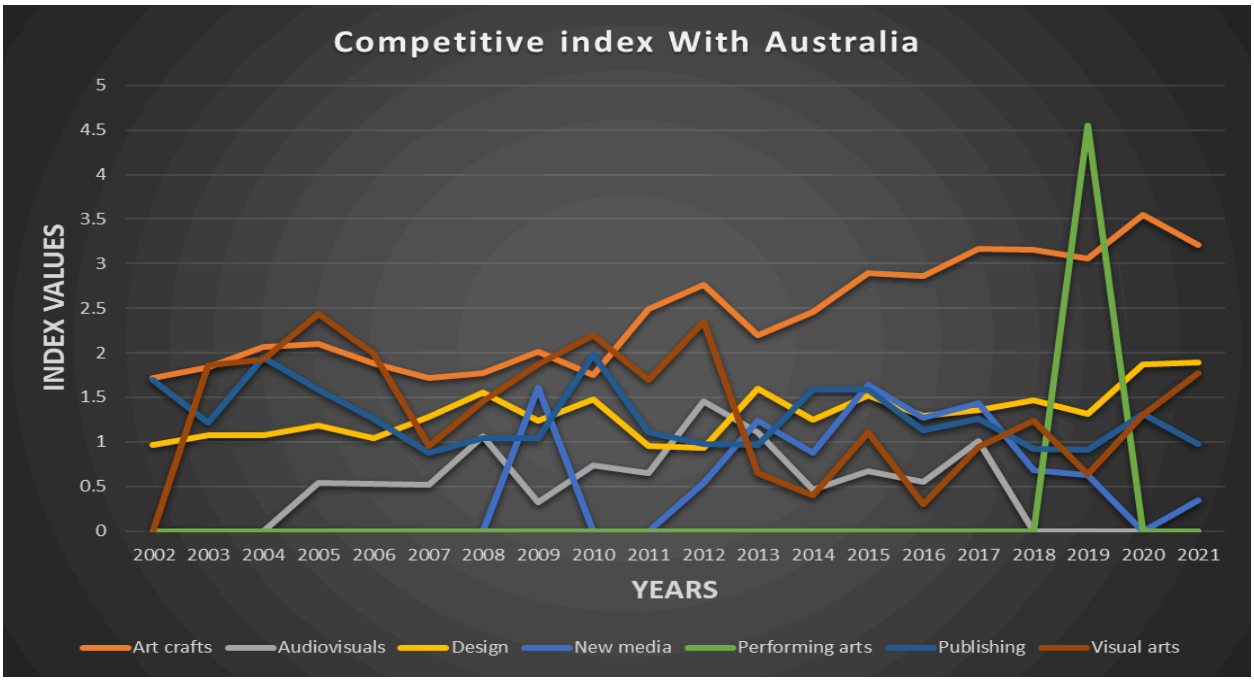

Figure 4.9 India's competitiveness Index trend with Australia (in %)
Source: Based on Trade data from UNCTADstat.

Figure 4.9 shows that, India's competitiveness index values in the art crafts category generally show an increasing trend over time, with some fluctuations. The values started from around 1.7% in 2002 and gradually increased to around 3.5% in recent years. India's competitiveness index values in the audiovisuals category vary over time but generally remain low. There are some fluctuations, with occasional spikes, but the values are mostly below 1.5 throughout the years. India's competitiveness index values in the design category exhibit fluctuations, but there is no clear trend observed. The values range from around 0.9% to 1.9% over the years, with no consistent pattern of increase or decrease. India's competitiveness index values in the new media category show fluctuations, with occasional spikes in some years. However, the values generally remain low, ranging from 0 to 1.6% throughout the analysed period. India's competitiveness index values in the performing arts category are generally zero, indicating limited competitiveness. India's competitiveness index values in the publishing

category exhibit fluctuations over time, with no clear trend observed. The values range from around 0.9% to 1.7%, with some variability but no consistent pattern. India's competitiveness index values in the visual arts category show fluctuations, with occasional spikes in some years. The values range from around 0.3% to 2.4%, with some variability observed over the years.

Overall it is noted that Art Crafts is India's highest competitive product with Australia as depicted in the index.

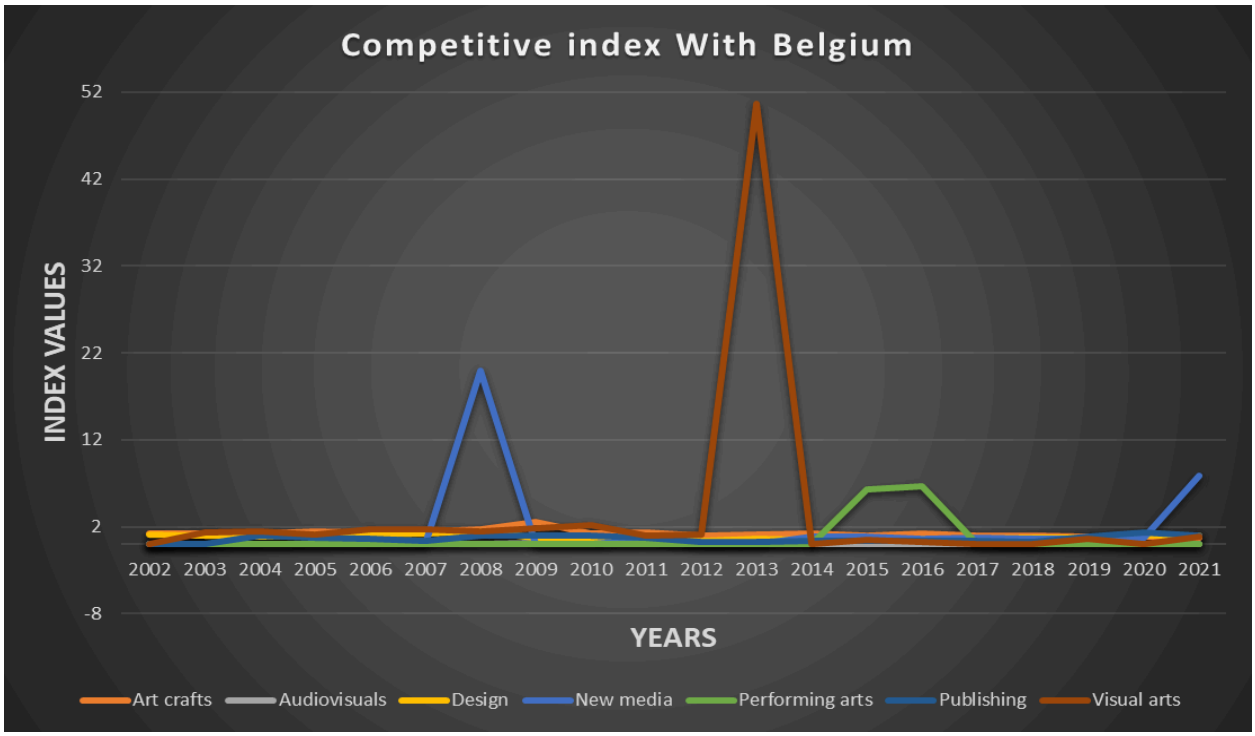

Figure 4.10 India’s competitiveness index trend with Belgium (in %)
Source: Based on Trade data from UNCTADstat.

As seen in Figure 4.10, India's competitiveness index in the art crafts category shows a fluctuating trend over the years, starting around 1.2% in 2002 and fluctuating between 0.8% and 2.6% until 2021. While there are variations, the index generally remains within a moderate range, indicating some level of competitiveness. India's competitiveness index in the

audiovisuals category remains consistently low, with no significant values recorded throughout the years. This suggests that India may have limited competitiveness. The competitiveness index in the design category fluctuates over time, starting around 0.4% in 2002 and ranging between 0.4% and 0.8% until 2021. While there are variations, the index generally remains relatively low compared to other categories. India's competitiveness index in the new media category shows a fluctuating trend over the years, with occasional spikes in certain years. The index ranges from 0 to 7.8%, indicating some variability but generally remaining at a moderate level compared to other categories. The competitiveness index in the performing arts category shows consistently high values, particularly from 2013 onwards, reaching as high as 50.6% in 2012. This suggests that India has a strong position in the performing arts sector compared to other categories when trading with Belgium. India's competitiveness index in the publishing category fluctuates over time, starting around 0.3% in 2002 and ranging between 0.3% and 1.3% until 2021. While there are variations, the index generally remains within a moderate range, indicating some level of competitiveness. India's competitiveness index in the visual arts category shows fluctuations over the years, starting around 0.3 in 2002 and fluctuating between 0 and 50.6% until 2021. The index varies widely, suggesting significant variability in India's competitiveness in this category.

Overall it is observed that Performing arts is India’s highest competing product with Belgium.

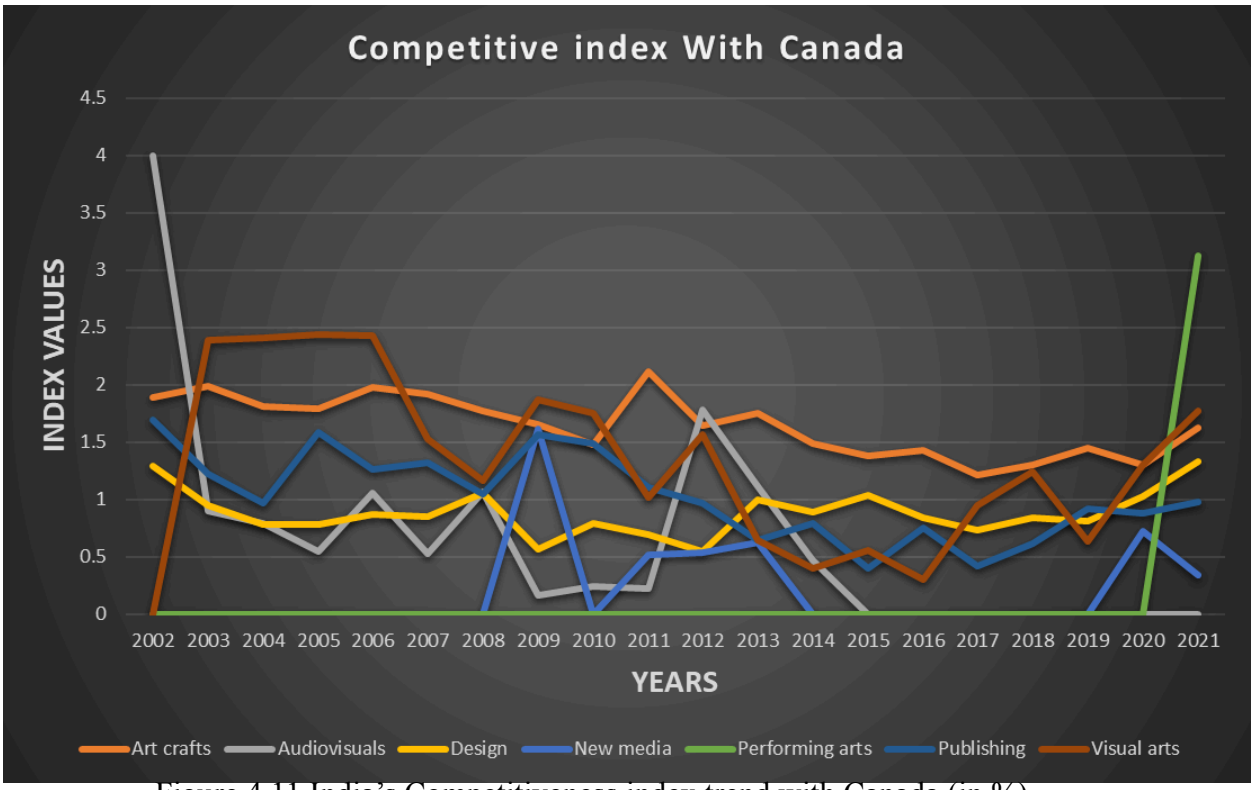

Figure 4.11 India's Competitiveness index trend with Canada (in %)
Source: Based on Trade data from UNCTADstat.

As observed in Figure 4.11, India's competitiveness index in the art crafts category shows fluctuations over the years, starting around 1.2 in 2002 and fluctuating between 1.2% and 2.1% until 2021. The index varies moderately, suggesting a moderate level of competitiveness. India's competitiveness index in the audiovisuals category fluctuates over time, with occasional spikes in certain years. The index ranges from 0 to 4%, indicating significant variability but generally remaining at a moderate level compared to other categories. The competitiveness index in the design category fluctuates over time, starting around 0.5% in 2002 and ranging between 0.5% and 1.3% until 2021. While there are variations, the index generally remains relatively low. India's competitiveness index in the new media category shows fluctuations over the years, with occasional spikes in certain years. The index ranges from 0 to 0.7%, indicating some variability but generally remaining at a moderate level. India's competitiveness index in the performing arts

category shows consistently low competitiveness values, particularly from 2013 onwards, remaining at 0 in most years. This suggests that India may have limited competitiveness. The competitiveness index in the publishing category fluctuates over time, starting around 0.3% in 2002 and ranging between 0.3 and 1.7% until 2021. While there are variations, the index generally remains within a moderate range, indicating some level of competitiveness. India's competitiveness index in the visual arts category shows fluctuations over the years, starting around 0.3% in 2002 and fluctuating between 0.3% and 2.4% until 2021. The index varies widely, suggesting significant variability.

Overall it is observed that the highest competitiveness index is observed in the Audiovisuals category.

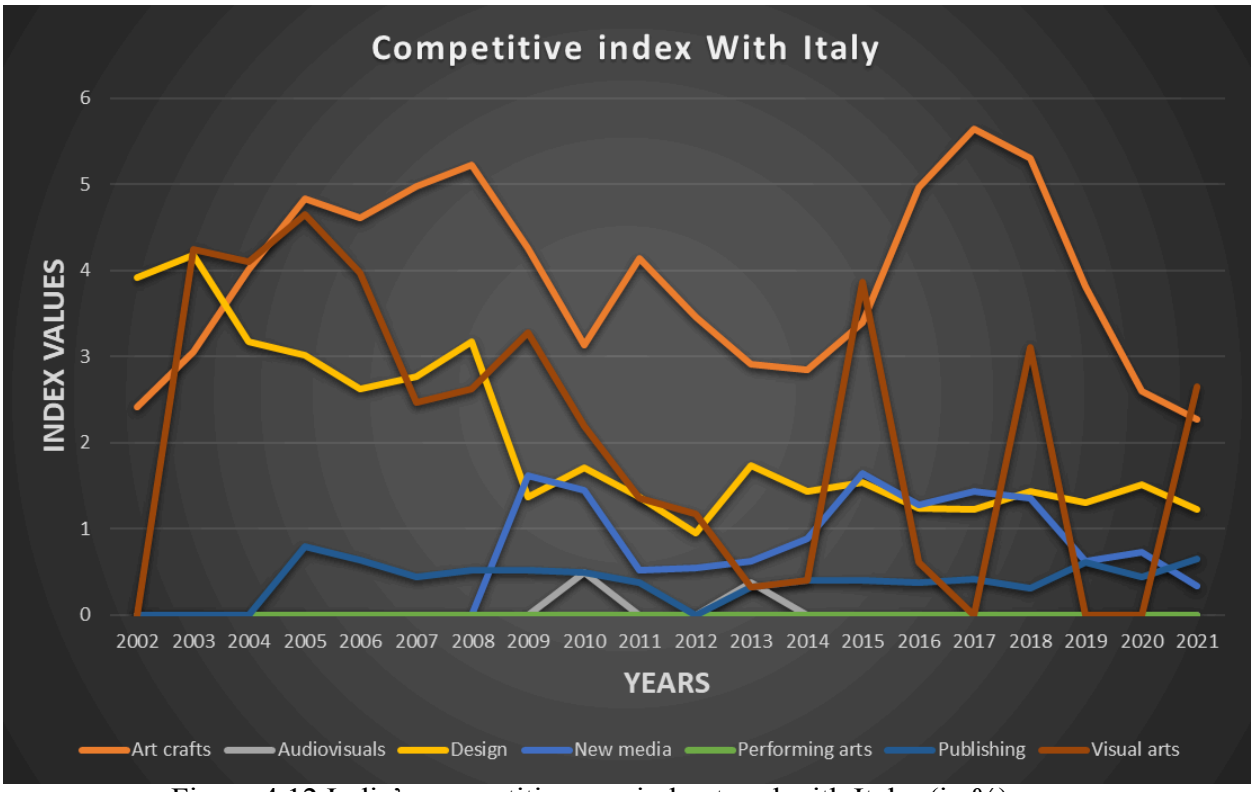

Figure 4.12 India's competitiveness index trend with Italy (in %)
Source: Based on Trade data from UNCTADstat.

Figure 4.12 shows that India's competitiveness in the Art Crafts category shows a fluctuating trend over the years, with occasional peaks and dips. The competitiveness index has experienced some variability, indicating a moderately competitive position. India's competitiveness in the Audiovisuals category has been consistently low throughout the years, with the competitiveness index remaining close to zero for most of the time. This suggests that India may have limited competitiveness. India's competitiveness in the Design category has shown a fluctuating trend, with periods of both increase and decrease in competitiveness. However, the overall trend suggests a moderate level of competitiveness, with the competitiveness index maintaining a relatively stable position over the years. India's competitiveness in the New Media category has shown some variability over time, with occasional spikes in competitiveness. However, the overall trend indicates a moderate level of competitiveness. India's competitiveness in the Performing Arts category has been consistently low, with the competitiveness index remaining close to zero for most of the years. This suggests that India may have limited competitiveness. India's competitiveness in the Publishing category has shown some variability over time, with occasional fluctuations in competitiveness. However, the overall trend suggests a moderate level of competitiveness, with the competitiveness index maintaining a relatively stable position over the years. India's competitiveness in the Visual Arts category has exhibited fluctuations over the years, with periods of both increase and decrease in competitiveness. However, the overall trend suggests a moderate to high level of competitiveness.

Overall the highest competitiveness index is observed in the Art Crafts category.

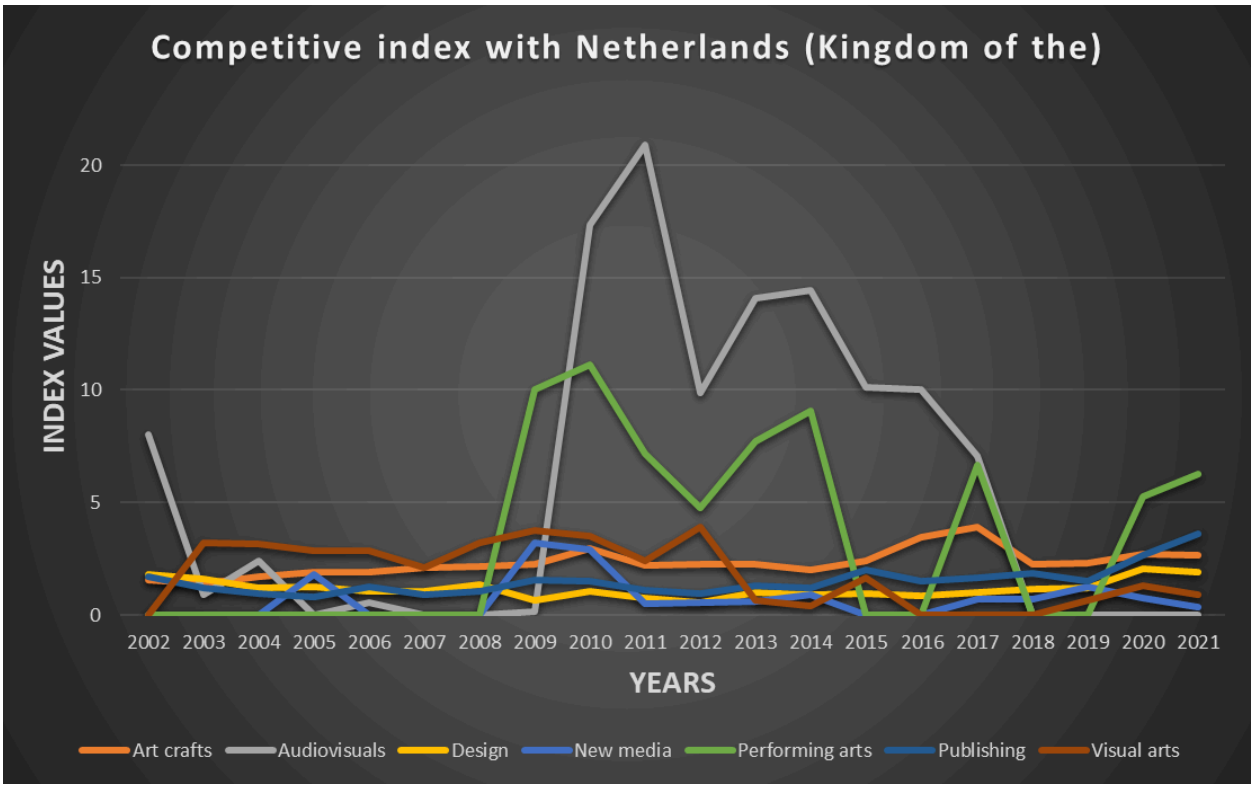

Figure 4.13 India's competitiveness index trend with Netherlands (in %)
Source: Based on Trade data from UNCTADstat.

Figure 4.13 shows that, The competitiveness index for Art Crafts shows a generally positive trend over the years, with some fluctuations. It started around 1.55 % in 2002, dips slightly in the mid-2000s, then steadily increases to around 2.71% in 2021. This indicates a moderate level of competitiveness. Audiovisuals exhibit significant variability, with some years showing very high competitiveness for example, 2002, 2010, 2011, while others show lower competitiveness. Despite fluctuations, there is an overall increasing trend from 2002 to 2021, suggesting a growing competitiveness. The competitiveness index for Design demonstrates a relatively stable trend over the years, hovering around 1.2 % to 1.3 % for most of the period. There are some fluctuations, but the overall trend shows moderate competitiveness. New Media shows variability, with some years exhibiting higher competitiveness for example 2009, 2010, 2013 and

others lower or no data. There is an overall increasing trend from the early 2010 to around 2020, suggesting a growing competitiveness. Performing Arts displays fluctuations over the years, with some years showing higher competitiveness for example 2009, 2010, 2013. Despite some variability, there is no clear trend in competitiveness. Publishing demonstrates a generally stable trend, with minor fluctuations over the years. It maintains a moderate level of competitiveness throughout the period. Visual Arts exhibits variability, with some years showing higher competitiveness, for example 2003, 2004, 2008 and others lower or no data. There is an overall increasing trend from the mid-2010s to around 2020, suggesting a growing competitiveness.

The highest competitiveness index is observed in the Audiovisuals sector.

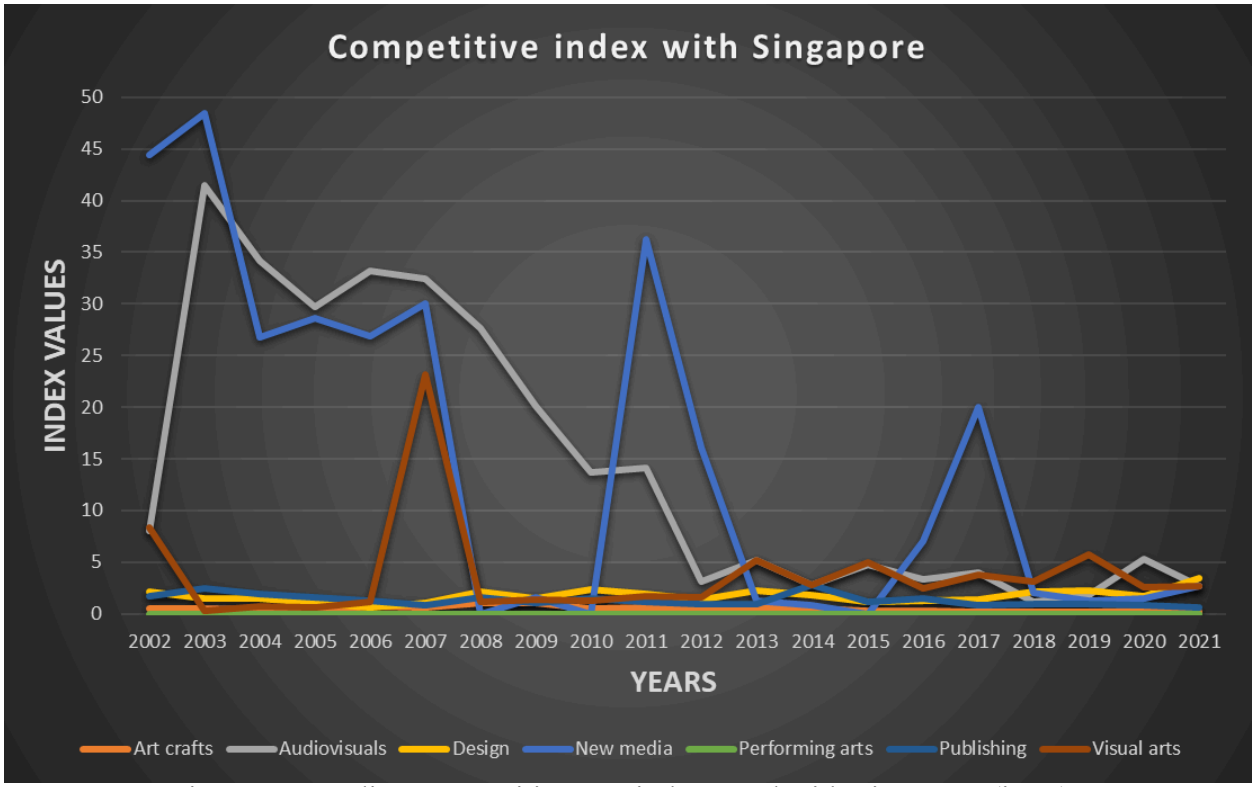

Figure 4.14 India's competitiveness index trend with Singapore (in %)
Source: Based on Trade data from UNCTADstat.

Figure 4.14 shows that, Art Crafts fluctuates over the years, starting from a relatively low point in 2002 and gradually increasing until around 2008. After a slight decline, it remains relatively stable with some fluctuations in competitiveness in subsequent years.

There is a significant fluctuation in competitiveness in the Audiovisuals sector, with a notably high index in the early 2000s, followed by a sharp decline in the following years. However, there is a slight recovery in competitiveness from around 2012 onwards. The Design sector shows a relatively stable competitiveness index with some fluctuations over the years. There was a noticeable increase in competitiveness around 2007-2008, followed by a slight decrease and then a more consistent level of competitiveness in the later years. New Media exhibits considerable volatility in competitiveness, with dramatic fluctuations over the years. There are periods of high competitiveness, notably in the mid-2000s and around 2013. However, there are also significant drops in competitiveness in certain years. There is no no competitiveness in the performing Arts category throughout the years. Publishing shows a relatively stable competitiveness index with some fluctuations over the years. There is a noticeable increase in competitiveness around 2013-2014, followed by a slight decline in the later years. The Visual Arts sector experiences fluctuations in competitiveness, with some years showing high competitiveness followed by declines in others. There was a particularly high index in 2002, followed by a significant drop in the subsequent years, and then a gradual increase in competitiveness from around 2010 onwards.

The highest competitiveness index among the categories with Singapore is observed in the "New Media" sector.

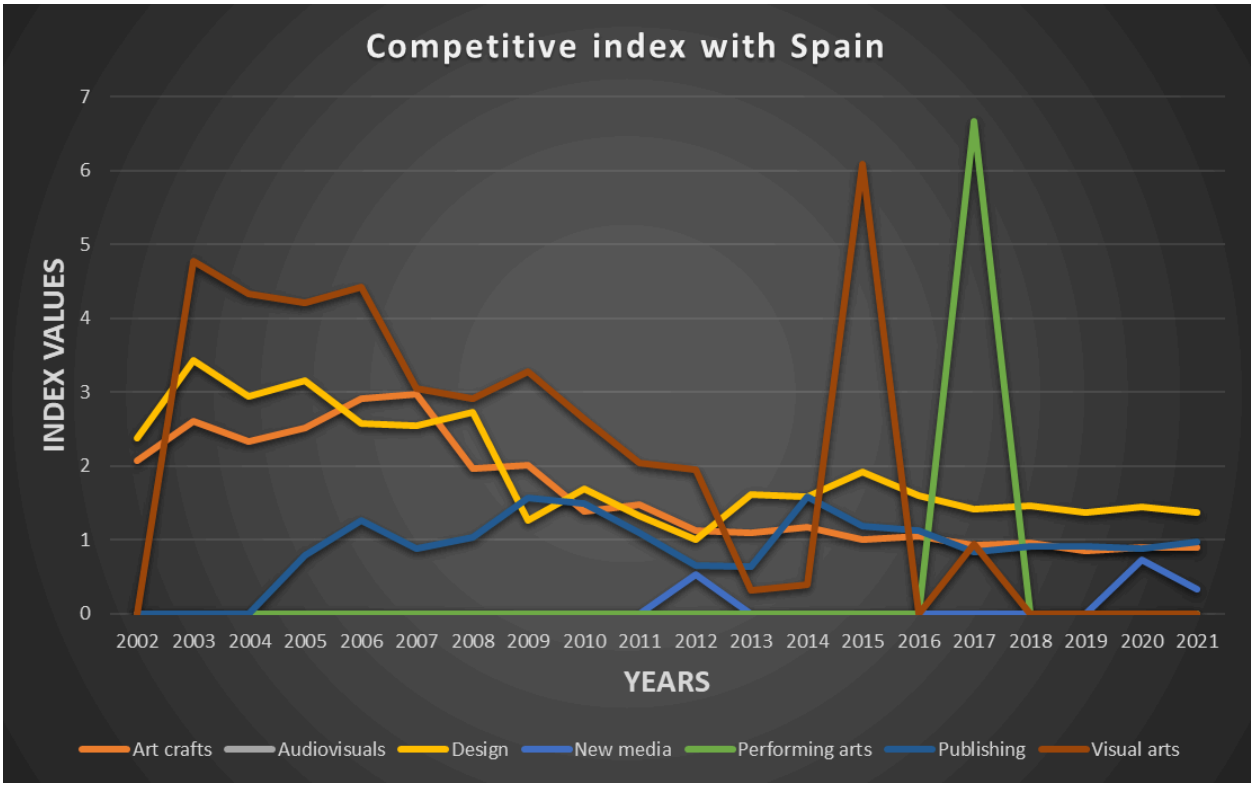

Figure 4.15 India's competitiveness index trend with Spain (in %)
Source: Based on Trade data from UNCTADstat.

In figure 4.15, India's competitiveness in the art crafts sector with Spain shows a generally fluctuating trend over the years. There's a notable decline in competitiveness from around 2006 to 2013, followed by a slight recovery in recent years. There is no competitiveness observed in the audiovisual category throughout the years. India's competitiveness in the design sector with Spain exhibits variability, with some peaks and troughs over the years. Despite fluctuations, it generally maintains a moderate level of competitiveness. India's competitiveness in the new media sector with Spain shows an increasing trend over the years, with occasional fluctuations. There's a notable increase in competitiveness observed from around 2010 onwards. There is no competitiveness observed in the Performing Arts category throughout the years. India's competitiveness in the publishing sector with Spain demonstrates moderate fluctuations over the

years, with no clear upward or downward trend observed. India's competitiveness in the visual arts sector with Spain displays variability, with fluctuations in competitiveness over the years.

India's highest competitiveness index with Spain appears to be in the New Media sector.

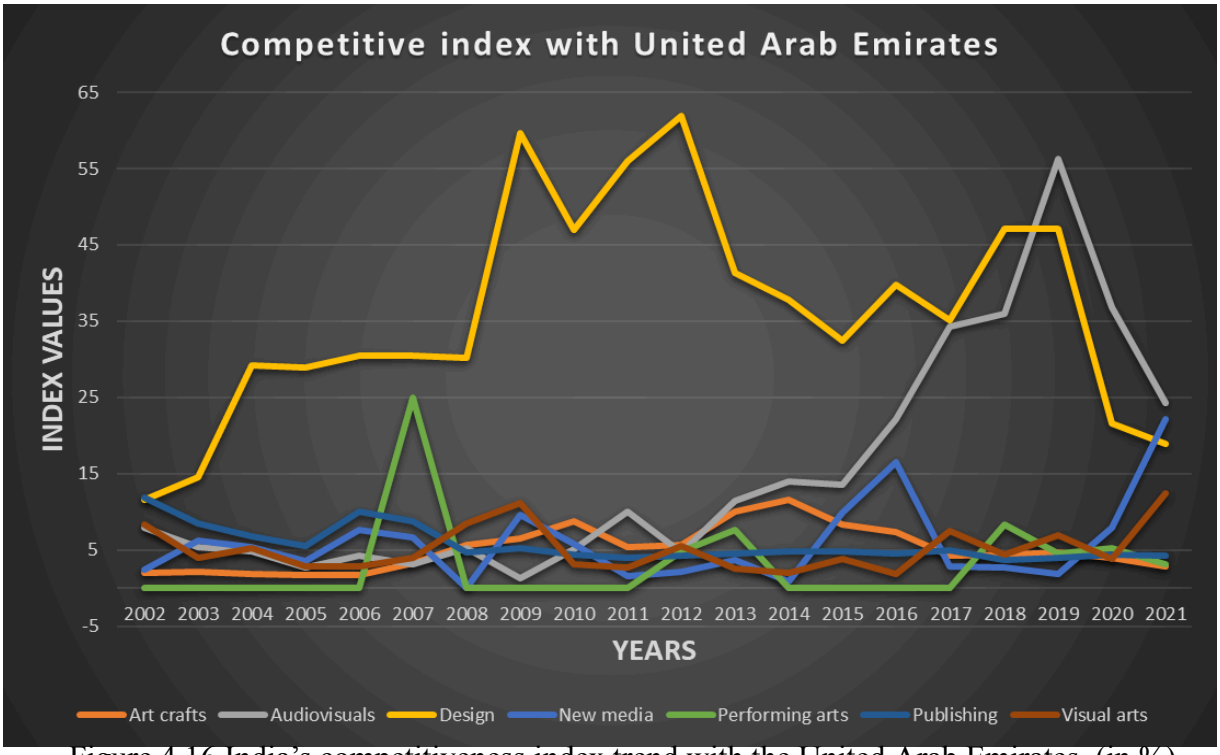

Figure 4.16 India's competitiveness index trend with the United Arab Emirates. (in %)
Source: Based on Trade data from UNCTADstat

As seen in Figure 4.16, The competitiveness index for art crafts between India and the UAE has shown a fluctuating trend over the years. It peaked in 2013 before gradually declining, with some fluctuations in between. However, despite these fluctuations, there has been an overall improvement in competitiveness, as indicated by the upward trend in recent years.

The competitiveness index for audiovisuals has displayed significant fluctuations over the years. There was a notable increase from 2013 to 2014, followed by relative stability until 2019. The index peaked in 2020 before experiencing a slight decline in 2021. In the design sector, the competitiveness index has shown a fluctuating but generally increasing trend. There was a

significant peak in 2013, followed by fluctuations but maintaining an overall upward trajectory. The index peaked again in 2019 before declining slightly in 2021. New media has exhibited significant fluctuations. There was a notable increase from 2013 to 2014, followed by fluctuations until 2019. The index peaked in 2020 before experiencing a slight decline in 2021. The competitiveness index in the performing arts sector saw a sudden spike in 2006, followed by relative stability until 2011. It increased again in 2012 and experienced fluctuations in subsequent years, peaking in 2020. In the publishing sector, the competitiveness index has shown fluctuations over the years. There was a general upward trend from 2013 to 2016, followed by some fluctuations but maintaining a relatively stable level. The index peaked in 2016 and then declined slightly in 2021. The competitiveness index in the visual arts sector has exhibited fluctuations with some periods of stability. There was a notable increase from 2013 to 2014, followed by fluctuations but maintaining an overall upward trend until 2019. The index peaked in 2020 before experiencing a slight decline in 2021.

The highest competitiveness index between India and the UAE is observed in the Design sector.

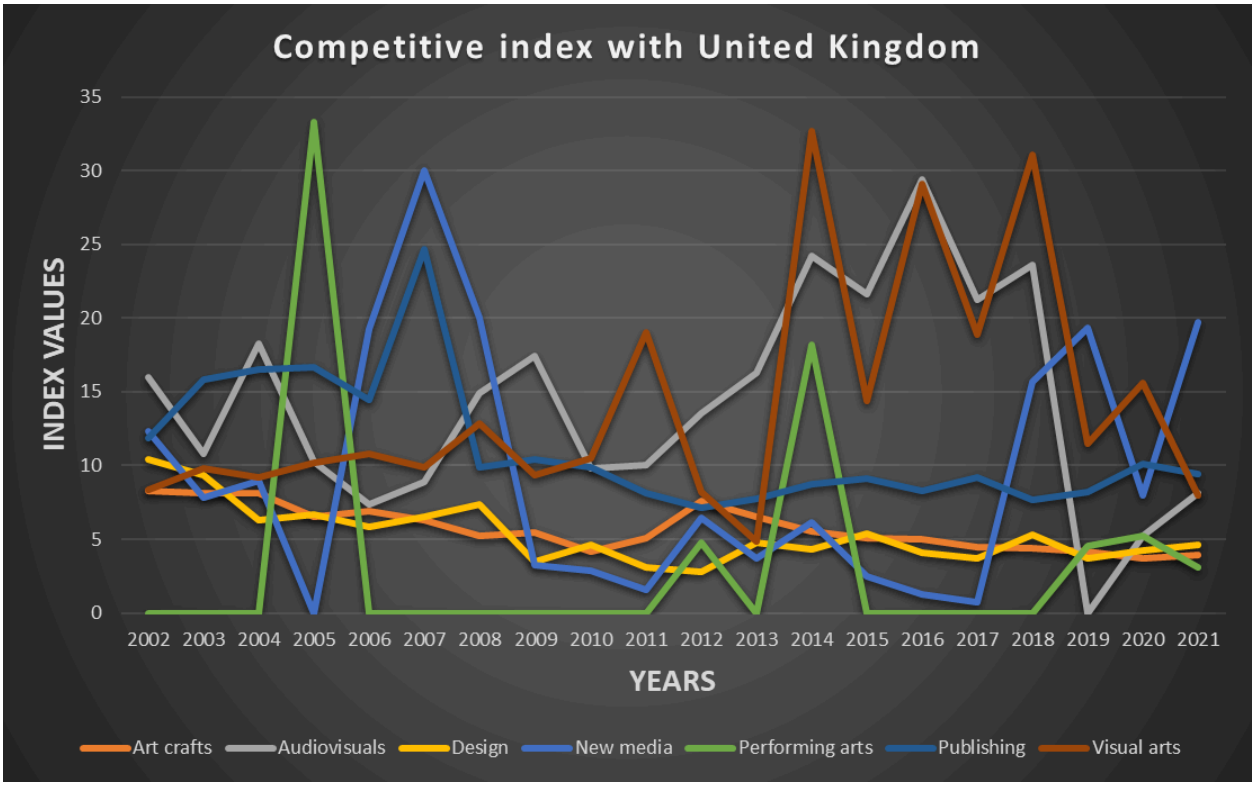

Figure 4.17 India's competitiveness index trend with United Kingdom (in %)
Source: Based on Trade data from UNCTADstat

Figure 4.17 shows that India's competitiveness in art crafts shows a consistent and relatively stable trend over the years, with minor fluctuations. This suggests that India has a well-established presence and competitive edge. The competitiveness in the audiovisuals sector fluctuates significantly over the years, with some years showing stronger competitiveness from India while others show lower levels. India's competitiveness in design exhibits an increasing trend in recent years, indicating a strengthening presence of competitiveness. The competitiveness in new media shows a notable increase in recent years, with India demonstrating significant strengths and competitiveness. Initially no competition in this sector to clearly describe trends in competitiveness in the performing arts sector. However, the available data suggests some level of competitiveness from India in certain years. India's competitiveness in

publishing fluctuates over the years but remains considerable. India's competitiveness in visual arts exhibits fluctuating trends, with periods of strong competitiveness followed by others with lower levels.

The highest competitiveness index of India with the UK across all categories appears to be in the Audiovisuals.

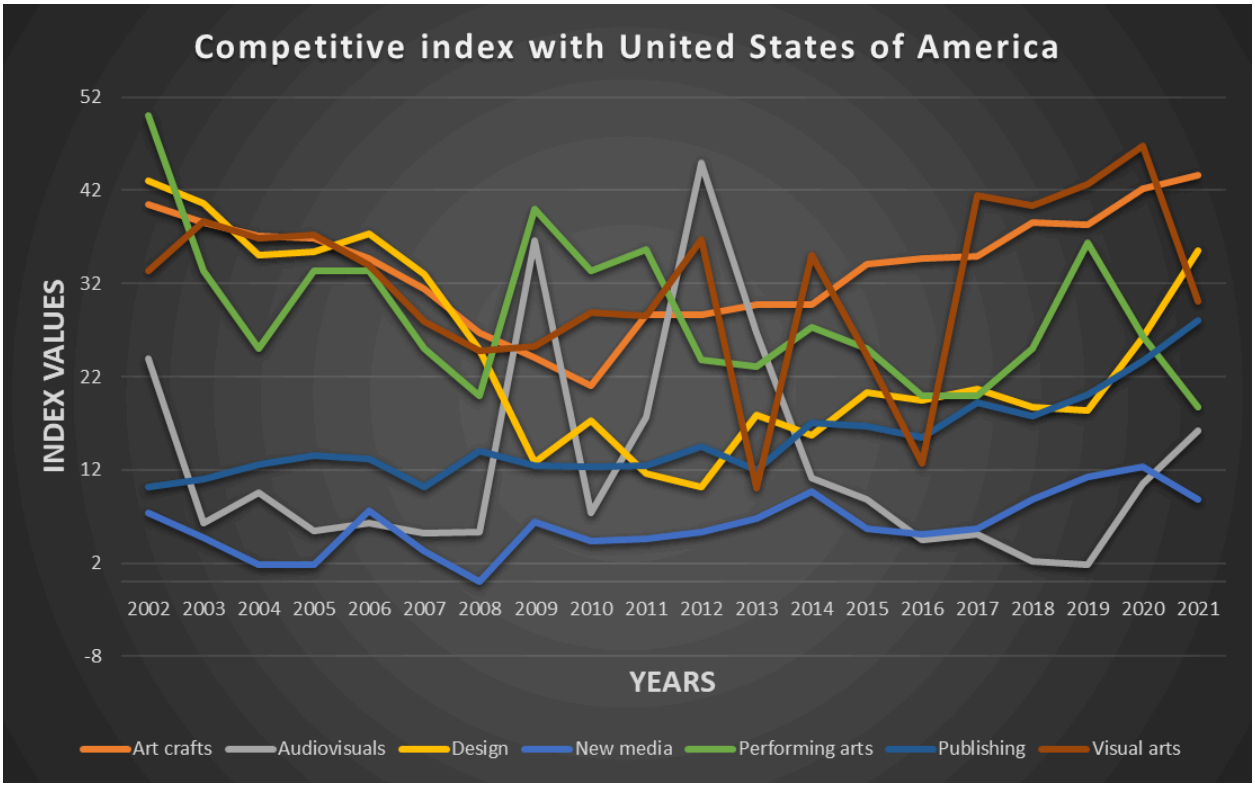

Figure 4.18 India’s competitiveness index trend with United States of America (in %)
Source: Based on Trade data from UNCTADstat

Figure 4.18 shows that the competitiveness index for art crafts shows a fluctuating pattern over the years, with some periods of increase and decrease. However, there is a general trend of slight growth from 2002 to 2021. Competitiveness in the audiovisuals sector displays significant variability over the years, with periods of both growth and decline. There is a notable spike in competitiveness around 2011, followed by a gradual decrease in recent years.

The competitiveness index for design exhibits fluctuations throughout the years, with no clear overall trend. While there are periods of increase and decrease, the competitiveness level appears to be decreasing initially but then increases over time. Competitiveness in the new media sector shows a mixed pattern, with fluctuations and periods of both growth and decline. There is a noticeable increase in competitiveness in the early years, followed by some variability in recent years. The competitiveness index for performing arts displays considerable variability over the years, with no clear trend. There are periods of both increase and decrease, with competitiveness levels fluctuating without a distinct pattern. Competitiveness in the publishing sector shows a generally increasing trend over the years, with occasional fluctuations. There is steady growth from 2002 to 2021, indicating a positive trajectory for the industry. The competitiveness index for visual arts exhibits fluctuations over the years, with periods of both growth and decline. While there are spikes and dips, the overall trend shows slight growth from 2002 to 2021.

The highest competitiveness index among all categories is Art Crafts.

4.3.6 Revealed comparative advantage results

The Revealed Comparative advantage is basically a measure that uses the trade pattern to identify the sectors in which an economy has a comparative advantage, by comparing the country of interests' trade profile with the world average. The results observed patterns of inter-industry trade and is effective in highlighting which comparative advantage product an economy can potentially specialise in to maximise their gains from trade, which in turn can lead to increase in the economy's terms of trade (Mikić & Gilbert, 2007).

This index test results are a founding base for this research as the revealed comparative advantage test results will be used in support of our objective 3.

The Following revealed comparative advantage results were calculated using the below formula

Revealed comparative advantage =

$$\frac{\text{(India's Export share of Product i to Country A / Sum of all India's product export to world)}}{\text{(World's share of Product i to world / Sum of all world's product export to world)}}$$

The Revealed comparative advantage measure takes a value between 0 and $+\infty$. A country is said to have a revealed comparative advantage if the value exceeds unity.

This test was computed for the top 10 export countries of India for all the years from 2002-2021. The results below are in reference to the top 10 export countries of India where the single most highest Revealed comparative advantage product is noted for all its corresponding years.

Table 4.21. Year wise highest Revealed Comparative advantage product of top 10 countries.

Years	India's top 10 export countries	Product Category	Revealed Comparative advantage value
2002	China Hong Kong	New media (RCA)	0.2777
2002	France	Arts Craft	0.0582
2002	Germany	Arts Craft	0.5750
2002	Italy	Arts Craft	0.1248
2002	Netherlands (Kingdom of the)	Design	0.0438
2002	Singapore	New media	1.1822
2002	Spain	Arts Craft	0.0566
2002	UAE		0
2002	UK	Arts Craft	0.7336
2002	USA	Arts Craft	3.0194
2003	China Hong Kong	Audiovisuals	1.6183
2003	France	Arts Craft	0.0870
2003	Germany	Arts Craft	0.7167
2003	Italy	Visual arts	0.2226
2003	Netherlands (Kingdom of the)	Visual arts	0.0733
2003	Singapore	Audiovisuals	0.3780
2003	Spain	Arts Craft	0.0608
2003	UAE		0
2003	UK	Arts Craft	0.6229
2003	USA	Arts Craft	2.6441
2004	China Hong Kong	Audiovisuals	0.9911
2004	France	Arts Craft	0.0730
2004	Germany	Arts Craft	0.5540

2004	Italy	Visual arts	0.1455
2004	Netherlands (Kingdom of the)	Visual arts	0.0531
2004	Singapore	Audiovisuals	0.1791
2004	Spain	Arts Craft	0.0529
2004	UAE		0
2004	UK	Arts Craft	0.4566
2004	USA	Arts Craft	2.0308
2005	China Hong Kong	Audiovisuals	4.0881
2005	France	Arts Craft	0.0660
2005	Germany	Arts Craft	0.7984
2005	Italy	Arts Craft	0.1747
2005	Netherlands (Kingdom of the)	Visual arts	0.0479
2005	Singapore	Arts Craft	0.0742
2005	Spain	Arts Craft	0.0533
2005	UAE	Design	0.2992
2005	UK	Arts Craft	0.4198
2005	USA	Arts Craft	2.4253
2006	China Hong Kong	Audiovisuals	3.3008
2006	France	Arts Craft	0.0593
2006	Germany	Arts Craft	0.7366
2006	Italy	Arts Craft	0.1589
2006	Netherlands (Kingdom of the)	Visual arts	0.0377
2006	Singapore	Arts Craft	0.2443
2006	Spain	Arts Craft	0.0551
2006	UAE		0

2006	UK	Arts Craft	0.4564
2006	USA	Arts Craft	2.1674
2007	Australia	Arts Craft	0.1209
2007	China, Hong Kong SAR	Audiovisuals	0.9956
2007	France	Arts Craft	0.0662
2007	Germany	Arts Craft	0.6952
2007	Italy	Arts Craft	0.1735
2007	Singapore	Visual arts	0.3223
2007	Spain	Arts Craft	0.0480
2007	United Arab Emirates	Visual arts	0.4390
2007	United Kingdom	Arts Craft	0.4928
2007	United States of America	Arts Craft	2.2993
2008	Australia	Arts Craft	0.1867
2008	China, Hong Kong SAR	Audiovisuals	1.1393
2008	France	Arts Craft	0.0852
2008	Germany	Arts Craft	0.8846
2008	Italy	Arts Craft	0.2120
2008	Singapore	Arts Craft	0.2676
2008	Spain	Design	0.0489
2008	United Arab Emirates	Visual arts	2.0669
2008	United Kingdom	Arts Craft	0.3614
2008	United States of America	Arts Craft	2.2344
2009	China	Design	0.0338
2009	China, Hong Kong SAR	Audiovisuals	0.1886
2009	France	Arts Craft	0.0389

2009	Germany	Arts Craft	0.3760
2009	Italy	Arts Craft	0.0661
2009	Singapore	Arts Craft	0.1300
2009	Spain	Design	0.0220
2009	United Arab Emirates		
2009	United Kingdom	Audiovisuals	3.7458
2009	United States of America	Arts Craft	0.4941
2010	China, Hong Kong	Audiovisuals	0.5869
2010	France	Arts Craft	0.0533
2010	Germany	Arts Craft	0.5086
2010	Italy	Arts Craft	0.0670
2010	Netherlands (Kingdom of the)	Design	0.0198
2010	Singapore	Arts Craft	0.1026
2010	Spain	Design	0.0227
2010	UAE		0
2010	UK	Audiovisuals	3.4405
2010	USA	Arts Craft	0.9207
2011	China, Hong Kong SAR	Design	0.1349
2011	France	Arts Craft	0.0564
2011	Germany	Arts Craft	0.2596
2011	Italy	Arts Craft	0.0898
2011	Netherlands (Kingdom of the)	Arts Craft	0.0298
2011	Singapore	Audiovisuals	0.0551
2011	Spain	Design	0.0283
2011	UAE		0

2011	UK	Arts Craft	0.2258
2011	USA	Arts Craft	1.2363
2012	Australia	Arts Craft	0.1726
2012	China, Hong Kong SAR	New media	0.1356
2012	France	Arts Craft	0.0453
2012	Germany	Arts Craft	0.1792
2012	Italy	Arts Craft	0.0678
2012	Singapore	Arts Craft	0.1330
2012	Spain	Design	0.0162
2012	United Arab Emirates	Arts Craft	0.5706
2012	United Kingdom	Arts Craft	0.2705
2012	United States of America	Arts Craft	1.1288
2013	Australia	Arts Craft	0.2006
2013	China, Hong Kong SAR	Design	0.1391
2013	France	New media	0.6690
2013	Germany	Arts Craft	0.3017
2013	Italy	Arts Craft	0.1295
2013	Singapore	Arts Craft	0.1245
2013	Belgium	Visual arts	0.3182
2013	United Arab Emirates	Arts Craft	1.2107
2013	United Kingdom	Arts Craft	0.4653
2013	United States of America	Arts Craft	2.4352
2014	Australia	Arts Craft	0.3243
2014	China, Hong Kong SAR	New media	0.2120
2014	France	Arts Craft	0.0639

2014	Germany	Arts Craft	0.2150
2014	Italy	Arts Craft	0.1145
2014	Singapore	Arts Craft	0.2364
2014	Spain	Design	0.0270
2014	United Arab Emirates	Arts Craft	1.0081
2014	United Kingdom	Arts Craft	0.3665
2014	United States of America	Arts Craft	2.5299
2015	Australia	Arts Craft	0.2909
2015	China, Hong Kong SAR	Design	0.2461
2015	France	Arts Craft	0.0791
2015	Germany	Arts Craft	0.3543
2015	Italy	Arts Craft	0.1713
2015	Netherlands (Kingdom of the)	Arts Craft	0.0221
2015	Spain	Design	1.4574
2015	United Arab Emirates	Arts Craft	1.0773
2015	United Kingdom	Arts Craft	0.4451
2015	United States of America	Arts Craft	3.1211
2016	Australia	Arts Craft	0.3130
2016	China, Hong Kong SAR	Design	0.2435
2016	France	Arts Craft	0.0759
2016	Germany	Arts Craft	0.2802
2016	Italy	Arts Craft	0.1993
2016	Singapore	Arts Craft	0.1153
2016	Spain	Design	0.0255
2016	United Arab Emirates	Arts Craft	2.6618

2016	United Kingdom	Arts Craft	0.4003
2016	United States of America	Arts Craft	2.0373
2017	Australia	Arts Craft	0.3410
2017	China, Hong Kong SAR	New media	0.2970
2017	France	Arts Craft	0.1006
2017	Germany	Arts Craft	0.3327
2017	Italy	Arts Craft	0.2547
2017	Singapore	Design	0.1161
2017	Spain	Design	0.0251
2017	United Arab Emirates	Arts Craft	0.5102
2017	United Kingdom	Arts Craft	0.3742
2017	United States of America	Arts Craft	3.4357
2018	Australia	Arts Craft	0.3282
2018	China, Hong Kong SAR	Design	0.2970
2018	France	Arts Craft	0.1102
2018	Germany	Arts Craft	0.2454
2018	Italy	Arts Craft	0.2521
2018	Singapore	Design	0.2190
2018	Spain	Design	0.0259
2018	United Arab Emirates	Design	0.6182
2018	United Kingdom	Arts Craft	0.4089
2018	United States of America	Arts Craft	4.3867
2019	Australia	Arts Craft	0.5209
2019	China, Hong Kong SAR	New media	0.1507
2019	France	Arts Craft	0.1360

2019	Germany	Arts Craft	0.2033
2019	Italy	Arts Craft	0.1870
2019	Singapore	Arts Craft	0.1969
2019	Spain	Design	0.0241
2019	United Arab Emirates	Arts Craft	0.5699
2019	United Kingdom	Arts Craft	0.5531
2019	United States of America	Arts Craft	4.1195
2020	Australia	Arts Craft	0.7730
2020	China, Hong Kong SAR	Design	0.3646
2020	France	Arts Craft	0.2457
2020	Germany	Arts Craft	0.2906
2020	Italy	Arts Craft	0.2293
2020	Netherlands (Kingdom of the)	Design	0.0346
2020	Singapore	Arts Craft	0.3538
2020	United Arab Emirates	Arts Craft	0.7061
2020	United Kingdom	Arts Craft	0.4076
2020	United States of America	Arts Craft	5.7612
2021	Australia	Design	0.0523
2021	canada	Arts Craft	0.0633
2021	China, Hong Kong SAR	Design	0.2252
2021	France	Arts Craft	0.2022
2021	Germany	Arts Craft	0.2600
2021	Netherlands (Kingdom of the)	Arts Craft	0.0466
2021	Singapore	-	-
2021	United Arab Emirates	Arts Craft	0.6105

2021	United Kingdom	Arts Craft	0.5065
2021	United States of America	Arts Craft	1.9918

Source: Based on creative goods trade data from UNCTADstat computed by author.

Based on the results in table 4.21, it is highly notable that India's export products fall primarily into the categories of Arts Craft, Audiovisuals, Design, New media, and Visual arts. But the category of "Arts Craft" appears to be the highest-gaining product for India consistently across multiple years and export destinations. India has shown significant comparative advantage values in Arts Craft, especially with countries like the USA, the UK, the UAE, Singapore.

The top export destinations for India include the United States of America, the United Kingdom, the United Arab Emirates, Singapore, China Hong Kong SAR, and others.

- The Art Craft category consistently shows a significant revealed comparative advantage across various export destinations over the years. India seems to have a stable advantage in exporting arts and crafts.
- In the Audiovisual category, While there is some fluctuation, India has shown a growing comparative advantage in this category, particularly with China Hong Kong SAR and the USA.
- In the Design Category, although initially lower, India's comparative advantage in design has been increasing over the years, especially with destinations like the UAE and the USA.
- India's comparative advantage in New media has been noticeable, particularly with Singapore and China Hong Kong SAR.
- In the Visual Arts category, India seems to have a stable but relatively lower advantage in visual arts compared to other categories.

The consistent high comparative advantage values in the "Arts Craft" category can be said that India possesses inherent strengths and capabilities in producing and exporting artistic and craft-related goods. This stability in comparative advantage signifies that India has developed a competitive edge in this particular sector, likely due to factors such as skilled artisanal workforce, rich cultural heritage, diverse craftsmanship, and access to raw materials. Furthermore, the sustained high comparative advantage across various export countries indicates that India's proficiency in Arts Craft is not limited to specific markets but is recognized and valued internationally. This suggests that India's products in this category are meeting the demands and preferences of diverse global consumers.

While India has demonstrated a significant comparative advantage in the Arts Craft category, relying solely on this specialisation could pose risks, especially considering potential volatility in global markets or changes in economic conditions. Diversification is crucial for any economy to mitigate risks and ensure long-term sustainability. While India's Arts Craft sector has shown stability, it's essential for India to also focus on diversifying its export base across multiple product categories and sectors. This diversification can help buffer against potential downturns in specific industries or changes in global demand patterns.

Based on the overall trends, India has the potential to further develop and capitalise on its comparative advantages in Arts Craft, Audiovisuals, Design, and New Media. Strengthening trade relationships with countries where India already shows a comparative advantage in these categories could lead to further growth in exports. Additionally, focusing on enhancing competitiveness in these sectors through innovation, quality improvement, and marketing strategies could further boost India's export potential.

Various other trends besides the revealed comparative advantage, show us a promising stable trend which can definitely be improved much more in the long run. By the results we have obtained of steady stable growth we can conclude that there indeed is feasibility for trading of creative goods in India.

4.4 TESTS FOR OBJECTIVE 2

4.4.1 Comparative Framework Analysis Test Results

The comparative framework analysis used in this research was to basically study the economic influence of creative economy trade on the GDP of India. This analysis will show us the approximate contribution the trade of Creative goods of India has on the GDP of India.
The summary will tell us the year wise cross sectional comparison on how much the trade values have contributed to the GDP upon its respective years. The framework has been carried out by analysing the top 10 tier exporting countries for each year separately, and then lastly a separate overall analysis for the Rest of the world with aggregated time series years.

The variables used in the comparative analysis regression are

- Independent variable - India's GDP
- Dependent variables - Creative Goods export values, Currency Exchange rates, Trade Barriers (Weighted average), Trade openness.

- ☐ India's GDP is measured as GDP per capita (current US$)
- ☐ The Creative Goods export values are measured in US dollars at current prices in millions Value.

- ☐ The Currency exchange rates are measured in National currency at current prices (India 1.00 INR)
- ☐ The trade barriers are in reference to the weighted average of tariffs corresponding to the various product categories.
- ☐ Trade openness is expressed in terms of percentage.

Comparative framework analysis with respect to the top 10 exporting countries.

The hypothesis statement for the comparative framework analysis test for the top 10 export countries of India is,

- H0: There is no statistically significant relationship between creative goods trade on India's GDP growth.
- H1: There is a statistically significant relationship between creative goods trade and India's GDP growth.

In this analysis we are primarily concerned with the year wise separate effects or contributions of creative goods exports on the GDP of India, and not currency exchange rates. Currency exchange rates are just used as another potential predictor of GDP when undertaking trade.

$$\text{India's GDP}_{t1} = \alpha 0_{t1} + \alpha 1(\text{Creative goods export values}_{t1}) + \alpha 2(\text{Currency Exchange rates}_{t1}) + \mu_{t1}$$

Where, GDP, Creative goods export values, currency exchange rates is in reference to time period 1, for example the year 2002.

In this multiple regression equation for the top 10 trading export countries, the variables Trade openness and Trade barriers have been ruled out because of the consistent multicollinearity

problem arising in the regression analysis as mentioned before in the research methodology design, which is drastically affecting the entire model as ‘Not applicable’.

Results

Table 4.22. Regression Model 2002

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2002	Intercept	4.688e+02	9.427e-14	4.974e+15	0.4852	1.135e-10	33.05	-1.996564	3.135918
	Creative export value	-2.954e-17	4.792e-16	-6.200e-02					
	Currency exchange rate	4.332e-12	1.520e-12	2.851e+00					

Table 4.22 represents the results of Model 2002, which shows that a unit increase in the exports for the year 2002 led to a -2.95E-17 equivalent to -0.0000000000000000295 decline in the GDP Of India in the year 2002. However, the value is extremely close to zero, suggesting an almost negligible contribution of creative goods to India's GDP in 2002. It appears that creative goods had a minimal impact on India's GDP in the year 2002. While it is seen that there is a 0.000000000004332 increase in GDP with the currency exchange rates in the year 2002. The R-squared value of 0.4852 suggests that the independent variables in the regression model explain about 48.52% of the variability observed in the dependent variable, which indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the creative goods exports has a t-value of -0.062 which is relatively close to zero. The critical t-value -1.996564 is also close to zero, this suggests that "Creative Goods Exports" is not statistically significant at significance level of 0.05. Whereas the currency exchange rate variable is statistically significant since its t value 2.851 is greater than the critical value.

Conducting a F test for the overall significance of the model, it is observed that the F statistic of 33.05 is much greater than the F critical value 3.135918, it suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 1.135e-10 is much smaller than the significance level 0.05, which suggests that there is strong evidence to reject the null hypothesis, in reference to the year 2002.

Table 4.23. Regression Model 2003

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2003	Intercept	5.438e+02	1.090e-13	4.988e+15	0.4825	9.737e-11	33.16	-1.996008	3.133762
	Creative export value	-6.196e-17	4.847e-16	1.280e-01					
	Currency exchange rate	4.887e-12	1.709e-12	2.860e+00					

Table 4.23 represents the results of Model 2003 which shows that the Creative Goods Contribution on GDP for the year is -6.20E-17 which represents a very small number close to zero. A unit increase in the exports for the year 2003 would imply a decline in the GDP by approximately 0.0000000000000000620 units. The contribution of creative

goods to India's GDP for the same year is essentially negligible, as it is close to zero. While it is seen that the Currency exchange rate in the year 2003 led to an increase in GDP by 4.887e-12. Adjusted R-squared value of 0.4825 suggests that the independent variables in the regression model explain approximately 48.25% of the variability observed in the dependent variable, indicating a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the critical t-value is -1.996008, which is much smaller than 0.128 of creative goods exports, this suggests that "creative goods exports" is not statistically significant at 0.05 significance level.

Currency exchange rate t-value of 2.860 is relatively large. Since the critical t-value is much smaller than 2.860, this suggests that "Currency Exchange Rates" is statistically significant at 0.05 significance level.

Conducting a F test for the overall significance of the model, it is observed that the F statistic of 33.16 is much greater than the F critical value 3.133762, it suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 9.737e-11 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis and conclude that the coefficient associated with the variable is statistically significant for the year 2003.

Table 4.24. Regression Model 2004

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2004	Intercept	6.241e+02	5.289e-14	1.180e+16	0.482	1.007e-10	33.1	-1.996008	3.133762
	Creative export value	-3.895e-17	1.413e-16	-2.760e-01					
	Currency exchange rate	2.349e-12	.201e-13	2.865e+00					

Table 4.24 represents the results of Model 2004 which shows that a unit increase in Creative goods exports for the year 2004 led to a -3.90E-17 decline in the GDP of India, which is approximately 0.0000000000000000390 units. This value however is extremely close to zero as well. A value of -3.90E-17 indicates that the contribution of creative goods exports to India's GDP in 2004 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2004 led to an increase in GDP by 0.0000000000002349 units. An adjusted R-squared value of 0.482 suggests that the regression model is able to explain about 48.2% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.276 is relatively close to zero. Since the critical t-value is -1.996008, is smaller than -0.276, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Currency exchange rates have a t value 2.865 is

relatively large. Since the critical t-value is much smaller than 2.865, this suggests that this variable is statistically significant at 0.05.

Conducting a F Test for the overall significance of the model, it is seen that the F statistic of 33.1 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 1.135e-10 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis and conclude that the coefficient associated with the variable is statistically significant for the year 2004.

Table 4.25. Regression model 2005

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2005	Intercept	7.105e+02	1.058e-13	6.718e+15	0.4822	9.888e-11	33.13	-1.996008	3.133762
	Creative export value	-7.374e-17	2.530e-16	-2.910e-01					
	Currency exchange rate	4.581e-12	1.598e-12	2.867e+00					

Table 4.25 represents the results of model 2005 which shows that a unit increase in Creative goods exports for the year 2005 led to an -7.374e-17 decrease in GDP for the year which is approximately 0.0000000000000000737 decline in GDP. This value however is extremely close to zero as well. This indicates that the contribution of creative

goods exports to India's GDP in 2005 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2005 led to an increase in GDP by 4.581e-12 units which is approximately 0.000000000004581 units. An adjusted R-Squared of 0.4822 suggests that the regression model is able to explain about 48.22% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.291 is relatively close to zero. Since the critical t-value is -1.996008, which is smaller than -0.291, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Currency exchange rates has a t-value of 2.867 is relatively large. Since the critical t-value is much smaller than 2.867, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 33.13 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 9.888e-11 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.26. Regression Model 2006

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2006	Intercept	8.020e+02	2.275e-13	3.525e+15	0.4814	1.045e-10	33.02	-1.996008	3.133762
	Creative export value	-1.237e-16	4.225e-16	-2.930e-01					
	Currency exchange rate	1.021e-11	3.557e-12	2.870e+00					

Table 4.26 represents the results of model 2006 which shows that a unit increase in Creative goods exports for the year 2006 led to an -1.237e-16 decrease in GDP, Which is approximately 0.0000000000000001237 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2006 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2006 led to an increase in GDP by 1.021e-11 units. An adjusted R-Squared of 0.4814 suggests that the regression model is able to explain 48.14% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.293 is relatively close to zero. Since the critical t-value is -1.996008, which is smaller than -0.293, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Currency exchange rates has a t-value of 2.870 is relatively large. Since the critical t-value is much smaller than 2.870, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 33.02 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 1.045e-10 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.27. Regression Model 2007

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2007	Intercept	1.023e+03	1.744e-14	5.865e+16	0.4609	5.211e-10	30.07	-1.996564	3.135918
	Creative export value	1.331e-17	3.204e-17	4.160e-01					
	Currency exchange rate	-8.098e-13	2.608e-13	-3.105e+00					

Table 4.27 represents the results of model 2007 which shows that a unit increase in Creative goods exports for the year 2007 led to an 1.331e-17 increase in GDP which the trend has changed, Which is approximately 0.00000000000000001331 units. This value however is still extremely close to zero as well but it has begun a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2007 led to a decline in GDP by -1.021e-11 units.

An adjusted R-Squared of 0.4609 suggests that the regression model is able to explain 46% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.416 which is relatively close to zero.Since the critical t-value is -1.996564, which is smaller than 0.416, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level now. Currency exchange rates t-value of -3.105e+00 is relatively large in absolute value. Since the critical t-value is smaller than -3.105e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 30.07 is greater than the critical value of 3.135918. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 5.211e-10 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.28. Regression Model 2008

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2008	Intercept	9.935e+02	1.214e-13	8.186e+15	0.4811	1.067e-10	32.98	-1.996008	3.133762
	Creative export value	1.128e-16	2.544e-16	4.440e-01					
	Currency exchange rate	-5.271e-12	1.826e-12	-2.887e+00					

Table 4.28 represents the results of Model 2008 which shows that a unit increase in Creative goods exports for the year 2008 led to an 1.128e-16 increase in GDP, Which is

approximately 0.0000000000000001128 units. This value however is still extremely close to zero as well but it has a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2008 led to a decline in GDP by -5.271e-12 units. An adjusted R-Squared of 0.4811 suggests that the regression model is able to explain 48.11% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.444 which is relatively close to zero.Since the critical t-value is -1.996008, which is smaller than 0.4444, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level. Currency exchange rates t-value of -2.887e+00 is relatively large in absolute value. Since the critical t-value is smaller than -3.105e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 32.98 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 1.067e-10 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.29. Regression Model 2009

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2009	Intercept	1.097e+03	3.678e-14	2.982e+16	0.5298	3.918e-12	39.88	-1.996008	3.133762
	Creative export value	6.669e-18	2.287e-17	2.920e-01					
	Currency exchange rate	-1.050e-12	4.993e-13	-2.104e+00					

Table 4.29 represents the results of Model 2009 which shows that a unit increase in Creative goods exports for the year 2009 led to an 6.669e-18 increase in GDP, Which is approximately 0.00000000000000006669 units. This value however is still extremely close to zero as well but it has a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2009 led to a decline in GDP by -1.050e-12 units. An adjusted R-Squared of 0.5298 suggests that the regression model is able to explain 52.98% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.2920 which is relatively close to zero.Since the critical t-value is -1.996008, which is smaller than 0.2920, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level. Currency exchange rates t-value of -2.104e+00 is relatively large in absolute value. Since the critical t-value is smaller than

-2.104e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 39.88 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 3.918e-12 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.30. Regression Model 2010

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2010	Intercept	1.351e+03	1.391e-13	9.711e+15	0.4808	1.087e-10	32.95	-1.996008	3.133762
	Creative export value	8.362e-17	1.462e-16	5.720e-01					
	Currency exchange rate	-6.534e-12	2.233e-12	-2.926e+00					

Table 4.30 represents the results of Model 2010 which shows that a unit increase in Creative goods exports for the year 2010 led to an 8.362e-17 increase in GDP, Which is approximately 0.00000000000000008362 units. This value however is still extremely close to zero as well but it has a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2010 led to a decline in GDP by -6.534e-12 units. An adjusted R-Squared of 0.4808 suggests that the regression model is able to explain

48.08% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.5720 which is relatively close to zero.Since the critical t-value is -1.996008, which is smaller than 0.5720, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level. Currency exchange rates t-value of -2.926e+00 is relatively large in absolute value. Since the critical t-value is smaller than -2.926e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 32.95 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 1.087e-12 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.31. Regression Model 2011

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2011	Intercept	1.450e+03	1.011e-13	1.434e+16	0.4822	9.902e-11	33.13	-1.996008	3.133762
	Creative export value	-3.447e-17	5.783e-17	-5.960e-01					
	Currency exchange rate	4.934e-12	1.683e-12	2.932e+00					

Table 4.31 represents the results of Model 2011 which shows that a unit increase in Creative goods exports for the year 2011 led to an -3.447e-17 decrease in GDP, Which is approximately 0.00000000000000003447 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2011 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2011 led to an increase in GDP by 4.934e-12 units. An adjusted R-Squared of 0.4822 suggests that the regression model is able to explain 48.22% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.5960 which is relatively close to zero. Since the critical t-value is -1.996008, which is larger in absolute value than -0.596, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 33.13 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 9.902e-11 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.32. Regression Model 2012

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2012	Intercept	1.434e+03	6.844e-14	2.095e+16	0.496	4.008e-11	34.95	-1.996008	3.133762
	Creative export value	-1.765e-17	3.000e-17	-5.880e-01					
	Currency exchange rate	3.828e-12	1.303e-12	2.938e+00					

Table 4.32 represents the results of Model 2012 which shows that a unit increase in Creative goods exports for the year 2012 led to an -1.765e-17 decrease in GDP, Which is approximately 0.00000000000000001765 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2012 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2012 led to an increase in GDP by 3.828e-12 units. An adjusted R-Squared of 0.496 suggests that the regression model is able to explain 49.6% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.5880 which is relatively close to zero. Since the critical t-value is -1.996008, which is larger in absolute value than -0.5880, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Whereas currency exchange rate is relatively larger with value of 2.938e+00. Since the critical

t-value is much smaller than 2.938, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 34.95 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 4.008e-11 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.33. Regression Model 2013

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2013	Intercept	1.438e+03	2.749e-13	5.232e+15	0.483	9.398e-11	33.24	-1.996008	3.133762
	Creative export value	-1.489e-16	2.483e-16	-6.000e-01					
	Currency exchange rate	1.673e-11	5.701e-12	2.935e+00					

Table 4.33 represents the results of Model 2013 which shows that a unit increase in Creative goods exports for the year 2013 led to an -1.489e-16 decrease in GDP, Which is approximately 0.0000000000000001489 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2013 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2013 led to an increase in GDP by 1.673e-11 units. An adjusted R-Squared of 0.483

suggests that the regression model is able to explain 48.3% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.6000 which is relatively close to zero. Since the critical t-value is -1.996008, which is larger in absolute value than -0.6000, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Whereas currency exchange rate is relatively larger with value of 2.935e+00. Since the critical t-value is much smaller than 2.935e+00, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 32.24 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 9.398e-11 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.34. Regression Model 2014

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2014	Intercept	1.560e+03	1.714e-13	9.103e+15	0.4749	1.587e-10	32.2	-1.996008	3.133762
	Creative export value	1.062e-16	1.428e-16	7.440e-01					
	Currency exchange rate	-1.108e-11	3.733e-12	-2.969e+00					

Table 4.34 represents the results of Model 2014 which shows that a unit increase in Creative goods exports for the year 2014 led to an 1.062e-16 increase in GDP, Which is approximately 0.0000000000000001062 units. This value however is still extremely close to zero as well but it has a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2014 led to a decline in GDP by -1.108e-12 units. An adjusted R-Squared of 0.4749 suggests that the regression model is able to explain 47.49% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.7440 which is relatively close to zero. Since the critical t-value is -1.996008, which is smaller than 0.7440, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level. Currency exchange rates t-value of -2.969e+00 is relatively large in absolute value. Since the critical t-value is smaller than -2.926e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 32.2 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 1.587e-10 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.35. Regression Model 2015

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2015	Intercept	1.590e+03	3.137e-13	5.069e+15	0.4831	9.384e-11	33.24	-1.996008	3.133762
	Creative export value	-2.513e-16	3.242e-16	-7.750e-01					
	Currency exchange rate	2.133e-11	7.144e-12	2.986e+00					

Table 4.35 represents the results of Model 2015 which shows that a unit increase in Creative goods exports for the year 2015 led to an -2.513e-16 decrease in GDP, Which is approximately 0.0000000000000002513 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2015 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2015 led to an increase in GDP by 2.133e-11 units. An adjusted R-Squared of 0.4831 suggests that the regression model is able to explain 48.31% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.7750 which is relatively close to zero. Since the critical t-value is -1.996008, which is larger in absolute value than -0.7750, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Whereas currency exchange rate is relatively larger with value of 2.133e+00. Since the critical

t-value is much smaller than 2.133e+00, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 33.24 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 9.384e-11 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.36. Regression Model 2016

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2016	Intercept	1.714e+03	7.714e-14	2.222e+16	0.4736	1.118e-08	26.19	-2.004879	3.168246
	Creative export value	5.069e-17	5.413e-17	9.370e-01					
	Currency exchange rate	-6.276e-12	1.915e-12	-3.278e+00					

Table 4.36 represents the results of Model 2016 which shows that a unit increase in Creative goods exports for the year 2016 led to an 5.069e-17 increase in GDP, Which is approximately 0.00000000000000005069 units. This value however is still extremely close to zero as well but it has a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2016 led to a decline in GDP by -6.276e-12 units. An adjusted R-Squared of 0.4736 suggests that the regression model is able to explain

47.36% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.9370 which is relatively close to zero.Since the critical t-value is -2.004879, which is smaller than 0.9370, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level. Currency exchange rates t-value of -3.278e+00 is relatively large in absolute value. Since the critical t-value is smaller than -3.278e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 26.19 is greater than the critical value of 3.16824. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 1.118e-08 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.37. Regression Model 2017

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2017	Intercept	1.958e+03	2.117e-13	9.249e+15	0.4931	4.849e-11	34.57	-1.996008	3.133762
	Creative export value	-1.379e-16	1.712e-16	-8.050e-01					
	Currency exchange rate	1.461e-11	4.865e-12	3.003e+00					

Table 4.37 represents the results of Model 2017 which shows that a unit increase in Creative goods exports for the year 2017 led to an -1.379e-16 decrease in GDP, Which is approximately 0.0000000000000001379 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2017 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2017 led to an increase in GDP by 1.461e-11 units. An adjusted R-Squared of 0.4931 suggests that the regression model is able to explain 49.31% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.8050 which is relatively close to zero. Since the critical t-value is -1.996008, which is larger in absolute value than -0.8050, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Whereas currency exchange rate is relatively larger with value of 3.003e+00. Since the critical t-value is much smaller than 3.003e+00, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 34.57 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 4.849e-11 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.38. Regression Model 2018

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2018	Intercept	1.974e+03	3.172e-13	6.225e+15	0.4898	6.062e-11	34.11	-1.996008	3.133762
	Creative export value	1.138e-16	2.289e-16	4.970e-01					
	Currency exchange rate	-2.200e-11	7.513e-12	-2.929e+00					

Table 4.38 represents the results of Model 2018 which shows that a unit increase in Creative goods exports for the year 2018 led to an 1.138e-16 increase in GDP, Which is approximately 0.0000000000000005069 units. This value however is still extremely close to zero as well but it has a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2018 led to a decline in GDP by -2.200e-11 units. An adjusted R-Squared of 0.4898 suggests that the regression model is able to explain 48.98% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.4970 which is relatively close to zero.Since the critical t-value is -1.9960, which is smaller than 0.4970, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level. Currency exchange rates t-value of -2.929e+00 is relatively large in absolute value. Since the critical t-value is smaller than

-2.929e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 34.11 is greater than the critical value of 3.13376. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 6.062e-011 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.39. Regression Model 2019

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2019	Intercept	2.050e+03	6.215e-13	3.299e+15	0.4766	6.952e-09	26.95	-2.004045	3.164993
	Creative export value	2.493e-16	3.703e-16	6.730e-01					
	Currency exchange rate	-5.025e-11	1.573e-11	-3.195e+00					

Table 4.39 represents the results of Model 2019 which shows that a unit increase in Creative goods exports for the year 2019 led to an 2.493e-16 increase in GDP, Which is approximately 0.0000000000000002493 units. This value however is still extremely close to zero as well but it has a fair contribution to the GDP. Whereas it is seen that Currency exchange rates in the year 2019 led to a decline in GDP by -5.025e-11 units. An adjusted R-Squared of 0.4766 suggests that the regression model is able to explain

47.66% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of 0.6730 which is relatively close to zero.Since the critical t-value is -2.004045, which is smaller than 0.6730, this suggests that "Creative Goods Exports" is statistically significant at 0.05 significance level. Currency exchange rates t-value of -3.195e+00 is relatively large in absolute value. Since the critical t-value is smaller than -3.195e+00 in absolute value, this suggests that currency exchange rates are statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 26.95 is greater than the critical value of 3.164993. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value 6.952e-09 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.40. Regression Model 2020

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2020	Intercept	1.913e+03	1.068e-13	1.791e+16	0.4815	1.04e-10	33.03	-1.996008	3.133762
	Creative export value	-1.103e-16	1.446e-16	-7.620e-01					
	Currency exchange rate	8.268e-12	2.773e-12	2.981e+00					

Table 4.40 represents the results of Model 2020 which shows that a unit increase in Creative goods exports for the year 2020 led to an -1.103e-16 decrease in GDP, Which is approximately 0.0000000000000001103 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2020 is effectively negligible. Whereas it is seen that Currency exchange rates in the year 2020 led to an increase in GDP by 8.268e-12 units. An adjusted R-Squared of 0.4815 suggests that the regression model is able to explain 48.15% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.7620 which is relatively close to zero. Since the critical t-value is -1.996008, which is larger in absolute value than -0.7620, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Whereas currency exchange rate is relatively larger with value of 2.981e+00. Since the critical t-value is much smaller than 2.981e+00, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 33.03 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 1.04e-10 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.41. Regression Model 2021

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2021	Intercept	2.238e+03	5.043e-13	4.438e+15	0.481	1.071e-10	32.98	-1.996008	3.133762
	Creative export value	-2.169e-16	4.651e-16	-4.660e-01					
	Currency exchange rate	3.735e-11	1.281e-11	2.916e+00					

Table 4.41 represents the results of Model 2021, being the latest year available, shows that a unit increase in Creative goods exports for the year 2021 led to an -2.169e-16 decrease in GDP, Which is approximately 0.0000000000000002169 units. This value however is extremely close to zero as well. This indicates that the contribution of creative goods exports to India's GDP in 2021 is effectively negligible as well. Whereas it is seen that Currency exchange rates in the year 2021 led to an increase in GDP by 3.735e-11 units. An adjusted R-Squared of 0.481 suggests that the regression model is able to explain 48.1% of the variation in India's GDP. This indicates a moderate level of explanatory power.

Conducting a T test for the predictor variables, it is seen that the Creative goods exports has a t-value of -0.4660 which is relatively close to zero. Since the critical t-value is -1.996008, which is larger in absolute value than -0.4660, this suggests that "Creative Goods Exports" is not statistically significant at 0.05 significance level. Whereas currency exchange rate is relatively larger with value of 2.916e+00. Since the critical

t-value is much smaller than 2.916e+00, this suggests this variable is statistically significant at 0.05 significance level.

Conducting an F test for the overall significance of the model, it is seen that the F statistic of 32.98 is greater than the critical value of 3.133762. This suggests that the regression model is statistically significant at 0.05 significance level.

P-value of 1.071e-10 is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Table 4.42. Regression Model Time series (Aggregated Years)

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
Aggregated years (time series)	Intercept	-2.753e+03	4.651e+02	-5.920	0.4817	2.2e-16	33.3	1.977692	2.438739
	Creative export value	2.019e-02	9.084e-03	2.222					
	Currency exchange rate	1.731e+00	1.858e-01	9.318					
	Tariffs (Weighted average)	-8.550e-04	5.075e-04	-1.685					
	Trade openness	-1.595e+01	3.581e+00	-4.453					

Table 4.42 shows the time series version depicting the overall significance the creative goods exports to the Rest of the world has contributed to GDP of India over the years with additional predictor variables.

It is observed that a unit increase in the creative goods exports over the years have led to an increase in GDP by 0.02019 units. Currency exchange rates show a positive contribution to the GDP by 1.731e+00 units. Tariffs however appear to show a negligible negative contribution to the GDP of a small estimate of -0.0008550 units. The Creative goods Trade openness of India appears to have a negative contribution to the GDP of India, as seen earlier in the trade dependence index that over the years India has reduced its dependence over the years. Hence the contribution appears to be negative.

The adjusted R-squared of 0.4817 indicates that approximately 48.17% of the variation in the dependent variable can be explained by the independent variables in the model.

Conducting a T test for the same, it is observed that, Creative goods export T Value is 2.22, which is greater than the critical t value of 1.977692 This suggests that Creative goods exports are statistically significant at 0.05 significance level.

The currency exchange rate t value appears to be 9.313 which is greater than the critical value, this suggests that currency exchange rate coefficient is statistically significant as its t-value is greater than the critical t-value at 0.05 significance level.

The tariffs coefficient is not statistically significant as its t-value is lesser than the negative critical t or falls in the acceptance region.The trade openness coefficient is statistically significant as its t-value is less than the negative critical t-value.

Conducting an F Test for the overall significance of the model, it is observed that the F statistic is 33.3, which suggests that the value is greater than the critical F value of 2.438739, hence making the model statistically significant.

The P value is 2.2e-16 which is much smaller than the significance level 0.05. This indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis.

Overall, as observed and compared with all the models, we have seen some statistical significance over the years of 2002-2021, it is highly notable that it is after the year 2007 that creative goods trading have started a fair share of contribution to the GDP of India. We can therefore conclude by rejecting the null hypothesis because there is a statistically significant relationship between creative goods trade and India's GDP growth based on the available data from 2002 to 2021.

4.5 TEST FOR OBJECTIVE 3

4.5.1 Predictive Modeling

In this analysis, we regress the Revealed comparative advantage products with GDP as a means of depicting what would have been the scenario if at all India were to specialise in devoting capital into the production of these specialised products for the purpose of creative goods trade, which inturn would predict how much it would have contributed to GDP of India. The below results are in reference to the Revealed comparative advantage table results where the top 10 countries for a random 5 year selection are regressed in this predictive model. Lastly an aggregated year time series predictive model with the top 10 countries will be regressed to depict the overall prediction in recent years. The variables for the individual years are only regressed with 2 predictors which is The 'revealed comparative advantage product value' and the 'currency exchange rates' specifically to the time period under study again because of the consistent problem of multicollinearity. However for the aggregated time series model all the predictors will be used since the multicollinearity problem does not greatly arise.

We want to test the following claims for the predictive analysis,

- H0: The trade of the Specialised creative goods has no impact on the Exponential growth of India.
- H1: The trade of the specialised creative goods has a significant impact on the Exponential growth of India.

India's $GDP_{t1} = \alpha 0_{t1} + \alpha 1(\text{Specialized Creative goods export values}_{t1}) + \alpha 2(\text{Currency Exchange rates}_{t1}) + \mu_{t1}$

Table 4.43. Predictive Model 2002

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2002	Intercept	4.688e+02	3.887e-14	1.206e+16	0.3576	0.08819	3.505	2.364624	4.737414
	Revealed comparative advantage	-1.031e-14	2.715e-14	-3.800e-01					
	Currency exchange rate	-3.508e-12	5.576e-13	-6.291e+00					

Table 4.43 shows the Predictive Model for the year 2002 shows that if at all India were to specialise in the production of ‘New Media’ with China Hong Kong SAR and Singapore, ‘Art Craft’ with France, Germany, Italy, Spain, United Kingdom and United States of America, ‘Design’ with Netherlands, then a unit increase in the production and trade of these products would have a 0.00000000000001031 units decline in the exponential growth of India with reference to the year specifically to 2002. Whereas the currency exchange rates also show a negative contribution to the exponential growth of -3.508e-12 units. The Adjusted R-Squared of 0.3576 indicates that approximately 35.76% of the variation in the dependent variable can be explained by the independent variables in the model.

Conducting a T test for the predictors, it is observed that, Revealed comparative advantage export’s T Value is -0.38000, which is greater than the negative t critical value 2.364624 in absolute terms which falls in the acceptance region. This suggests that the

Revealed Comparative Advantage Export variable is not statistically significant at the 0.05 significance level. The currency exchange rate t value appears to be -6.291 which is smaller than the negative critical t value, this suggests that currency exchange rate coefficient is statistically significant as its t-value is smaller than the critical t-value at 0.05 significance level.

Conducting an F Test for the overall significance of the model, it is observed that the F statistic is 3.505, which suggests that the value is smaller than the critical F value of 4.7374, Since 3.505 is less than 4.7374, the overall regression model is not statistically significant at the specified significance level of 0.05. This implies that the independent variables in the model do not collectively provide a significant improvement in explaining the variability of the GDP.

With a P-value of 0.08819 and a significance level of 0.05, we fail to reject the null hypothesis. Since we do not have sufficient evidence to conclude that the variable "Revealed comparative advantage" is not statistically significant in explaining the variation in India's GDP at the 0.05 significance level.

Table 4.44. Predictive Model 2006

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2006	Intercept	8.020e+02	3.479e-14	2.305e+16	0.2869	0.127	2.811	2.364624	4.737414
	Revealed comparative advantage	6.886e-14	3.452e-14	1.995e+00					
	Currency exchange rate	3.083e-12	7.695e-13	4.007e+00					

Table 4.44 shows the Predictive Model for the year 2006 shows that if at all India were to specialise in the production of 'Audiovisuals' with China Hong Kong SAR, 'Visual Arts' with Netherlands, and 'Arts Craft' with France, Germany, Italy, Singapore, Spain, United kingdom, United States of America, then a unit increase in the production and trade of these products would have a 0.00000000000006886 unit increase in the exponential growth of India with reference to the year specifically to 2006. Whereas the currency exchange rates also show a positive contribution to the exponential growth of 3.083e-12 units. The Adjusted R-Squared of 0.2869 indicates that approximately 28.69% of the variation in the dependent variable can be explained by the independent variables in the model.

Conducting a T test for the predictors, it is observed that, Revealed comparative advantage export's T Value is 1.995, which is lesser than the t critical value 2.364624 in absolute terms which falls in the acceptance region. This suggests that the Revealed

Comparative Advantage Export variable is not statistically significant at the 0.05 significance level. The currency exchange rate t value appears to be 4.007 which is greater than the critical t value, this suggests that currency exchange rate coefficient is statistically significant as its t-value is greater than the critical t-value at 0.05 significance level.

Conducting an F Test for the overall significance of the model, it is observed that the F statistic is 2.811, which suggests that the value is smaller than the critical F value of 4.737414, Since 2.811 is less than 4.737414, the overall regression model is not statistically significant at the specified significance level of 0.05. This implies that the independent variables in the model do not collectively provide a significant improvement in explaining the variability of the GDP.

With a P-value of 0.127 and a significance level of 0.05, we fail to reject the null hypothesis. Since we do not have sufficient evidence to conclude that the variable "Revealed comparative advantage" is not statistically significant in explaining the variation in India's GDP at the 0.05 significance level.

Table 4.45. Predictive Model 2012

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2012	Intercept	1.434e+03	2.511e-13	5.711e+15	0.4159	0.06318	4.205	2.364624	4.737414
	Revealed comparative advantage	1.372e-13	4.987e-13	2.750e-01					
	Currency exchange rate	1.452e-12	3.997e-12	3.630e-01					

Table 4.45 shows the Predictive Model for the year 2012 shows that if at all India were to specialise in the production of ‘New Media’ with China Hong Kong SAR, ‘Design’ with Spain, and ‘Arts Craft’ with France, Germany, Italy, Singapore, Australia, United Arab Emirates, United kingdom, United States of America, then a unit increase in the production and trade of these products would have a 0.0000000000001372 unit increase in the exponential growth of India with reference to the year specifically to 2012. Whereas the currency exchange rates also show a positive contribution to the exponential growth of 1.452e-12 units. The Adjusted R-Squared of 0.4159 indicates that approximately 41.59% of the variation in the dependent variable can be explained by the independent variables in the model.

Conducting a T test for the predictors, it is observed that, Revealed comparative advantage export’s T Value is 0.2750, which is lesser than the t critical value 2.364624 in absolute terms which falls in the acceptance region. This suggests that the Revealed

Comparative Advantage Export variable is not statistically significant at the 0.05 significance level. The currency exchange rate t value appears to be 0.3630 which is smaller than the critical t value, this suggests that currency exchange rate coefficient is statistically not significant as its t-value is greater than the critical t-value at 0.05 significance level.

Conducting an F Test for the overall significance of the model, it is observed that the F statistic is 4.205, which suggests that the value is smaller than the critical F value of 4.737414, Since 4.205 is less than 4.737414, the overall regression model is not statistically significant at the specified significance level of 0.05. This implies that the independent variables in the model do not collectively provide a significant improvement in explaining the variability of the GDP.

With a P-value of 0.06318 and a significance level of 0.05, we fail to reject the null hypothesis. Since we do not have sufficient evidence to conclude that the variable "Revealed comparative advantage" is not statistically significant in explaining the variation in India's GDP at the 0.05 significance level.

Table 4.46. Predictive Model 2016

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2016	Intercept	1.714e+03	3.603e-13	4.758e+15	0.3217	0.1066	3.135	2.364624	4.737414
	Revealed comparative advantage	-8.210e-14	2.796e-13	-2.940e-01					
	Currency exchange rate	-1.650e-12	7.820e-12	7.820e-12					

Table 4.46 shows the Predictive Model for the year 2016 shows that if at all India were to specialise in the production of ‘Design’ with China Hong Kong SAR, Spain, and ‘Arts Craft’ with France, Germany, Italy, Singapore, Australia, United Arab Emirates, United kingdom, United States of America, then a unit increase in the production and trade of these products would have a 0.00000000000008210 unit decrease in the exponential growth of India with reference to the year specifically to 2016. Whereas the currency exchange rates also show a negative contribution to the exponential growth of -1.650e-12 units. The Adjusted R-Squared of 0.3217 indicates that approximately 32.17% of the variation in the dependent variable can be explained by the independent variables in the model.

Conducting a T test for the predictors, it is observed that, Revealed comparative advantage export’s T Value is -0.2940, which is greater than the negative t critical value -2.364624 in absolute terms which falls in the acceptance region. This suggests that the

Revealed Comparative Advantage Export variable is not statistically significant at the 0.05 significance level. The currency exchange rate t value appears to be 7.820e-12 which is smaller than the critical t value, this suggests that currency exchange rate coefficient is statistically not significant as its t-value is smaller than the critical t-value of 2.3646 at 0.05 significance level.

Conducting an F Test for the overall significance of the model, it is observed that the F statistic is 3.135, which suggests that the value is smaller than the critical F value of 4.737414, Since 3.135 is less than 4.737414, the overall regression model is not statistically significant at the specified significance level of 0.05. This implies that the independent variables in the model do not collectively provide a significant improvement in explaining the variability of the GDP.

With a P-value of 0.1066 and a significance level of 0.05, we fail to reject the null hypothesis. Since we do not have sufficient evidence to conclude that the variable "Revealed comparative advantage" is not statistically significant in explaining the variation in India's GDP at the 0.05 significance level.

Table 4.47. Predictive Model 2021

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
2021	Intercept	2.238e+03	2.703e-13	8.28e+15	0.2635	0.1686	2.431	4.302653	5.143253
	Revealed comparative advantage	1.847e-13	2.919e-13	6.33e-01					
	Currency exchange rate	1.965e-12	5.673e-12	3.46e-01					

Table 4.47 shows the Predictive Model for the year 2021 shows that if at all India were to specialise in the production of ‘Design’ with Australia and China Hong Kong SAR, and ‘Arts Craft’ with France, Germany,Canada, Singapore, Netherlands, United Arab Emirates, United kingdom, United States of America, then a unit increase in the production and trade of these products would have a 0.0000000000001847 unit increase in the exponential growth of India with reference to the year specifically to 2021. Whereas the currency exchange rates also show a positive contribution to the exponential growth of 1.965e-12 units. The Adjusted R-Squared of 0.2635 indicates that approximately 26.35% of the variation in the dependent variable can be explained by the independent variables in the model.

Conducting a T test for the predictors, it is observed that, Revealed comparative advantage export’s T Value is 0.633, which is lesser than the t critical value 4.3026 in absolute terms which falls in the acceptance region. This suggests that the Revealed

Comparative Advantage Export variable is not statistically significant at the 0.05 significance level. The currency exchange rate t value appears to be 0.346 which is smaller than the critical t value, this suggests that currency exchange rate coefficient is not statistically significant as its t-value is smaller than the critical t-value at 0.05 significance level.

Conducting an F Test for the overall significance of the model, it is observed that the F statistic is 2.431, which suggests that the value is smaller than the critical F value of 5.143253, Since 2.431 is less than 5.143253, the overall regression model is not statistically significant at the specified significance level of 0.05. This implies that the independent variables in the model do not collectively provide a significant improvement in explaining the variability of the GDP.

With a P-value of 0.1686 and a significance level of 0.05, we fail to reject the null hypothesis. Since we do not have sufficient evidence to conclude that the variable "Revealed comparative advantage" is not statistically significant in explaining the variation in India's GDP at the 0.05 significance level.

Table 4.48. Predictive Model Time series (Aggregated Years)

Years	Variable	Estimate	Standard error	T value	Adjusted R^2	Pvalue	F statistic	Critical T	Critical F
Aggregated Time series years	Intercept	1.005e+03	1.029e+02	9.768	0.09581	6.624e-05	7.746	3.182446	2.652646
	Revealed comparative advantage	7.580e+00	3.795e+01	0.200					
	Currency exchange rate	-9.003e+01	9.092e+02	-0.099					
	Tariffs weighted average	2.504e-03	5.522e-04	4.534					

Table 4.48 shows the predictive model for the time series analysis,which shows that if at all India were to specialise in the production of goods based on the Revealed comparative advantage year wise, then a unit increase in the production and trade of these products would have a 7.580 unit increase in the exponential growth of India. Whereas the currency exchange rates also show a negative contribution to the exponential growth of -9.0033e+01 units. The Adjusted R-Squared of 0.09581 suggests that approximately 9.581% of the variance in India GDP is explained by the independent variables. Conducting a T test for the predictors, it is observed that, Revealed comparative advantage export's T Value is 0.200, which is lesser than the t critical value 3.18244 in

absolute terms which falls in the fail to reject region. This suggests that the Revealed Comparative Advantage Export variable is not statistically significant at the 0.05 significance level. The currency exchange rate t value appears to be -0.099 which is greater than the negative critical t value, this suggests that currency exchange rate coefficient is not statistically significant as its t-value is greater than the negative critical t-value at 0.05 significance level. Whereas Tariffs has a t value of 4.534 which is greater than the critical t value, therefore the variable is statistically significant.

Conducting an F Test for the overall significance of the model, it is observed that the F statistic is 7.746, which suggests that the value is greater than the critical F value of 2.652646, Since 7.746 is less than 2.652646, the overall regression model is statistically significant at the specified significance level of 0.05. the regression model as a whole is statistically significant. This means that at least one of the predictor variables in the model has a non-zero effect on India's GDP.

With a P-value of 0.00006.624 and a significance level of 0.05, we reject the null hypothesis. Since we have sufficient evidence to conclude that the model is statistically significant. We reject the null hypothesis and conclude that the regression model as a whole is statistically significant. This means that there is strong evidence to suggest that at least one of the predictor variables in the model, in this case tariffs, has a non-zero effect on India's GDP.

Overall based on the results of the predictive models for all the random 5 years, it is clearly notable that the models are not statistically significant, but the specialised creative does show a very small but very negligible contribution upon the Exponential growth of India. Even in the aggregated time series model it appears that we do not have sufficient evidence to support the

alternative hypothesis that the trade of specialised creative goods has a significant impact on India's GDP growth.

Instead, the results suggest that only tariffs, among the variables included in the model, have a statistically significant relationship with India's GDP growth. Therefore we conclude that we fail to reject the null hypothesis in the predictive analysis. Although we fail to reject the null hypothesis, it does not always imply that the specialised good has a zero effect on the GDP. As seen in the estimates that there is a small contribution in the predictive models. Whereas as seen in the aggregated years model, The specialised goods do in fact contribute a decent unit increase in the GDP as compared to the comparative framework time series model. This indicates that if India were to specialise in producing that particular good that it is good at indeed makes a positive difference in comparison to our comparative framework time series model and our time series predictive model. Some of the reasons for the no statistical significance of the revealed comparative advantage variables could be due to no diversification of products in the model. Other reasons could possibly be due to limited predictor variables in the model.

4.6 CONCLUSION

The research began with the discussion regarding validating whether there is feasibility for the trade of creative goods in India. As seen by earlier studies, India does in fact fall in the top 10 exporting country tier list but it was limited to 2015 and below (Kuku et al., 2018). Our research results suggested that overall we notice a stable creative trade growth. It has been observed that creative goods have generally been positive, indicating that India has been a net exporter of creative goods. However, there were fluctuations in the magnitude of net exports from year to year. For example, there are significant increases in net exports in certain years for example,

2009, 2011, 2012, indicating strong export performance, while in other years, the net exports decrease, for example, 2010, 2013, 2015. The tests adopted in assessing the feasibility also show considerable positive results although there are minor fluctuations in the trends. Our findings suggest that India overall has a stable export growth rate and shows sustained level of interest for creative goods trade in foreign markets. But it was also observed that over a period of time India has reduced its dependence on just the trade of creative goods but there is still stability within the sector. In terms of the estimated contribution to the GDP of India, the comparative framework analysis in the research also suggests that there is a very marginal estimated contribution to the GDP of India. There are periods where we observe that the contribution by creative goods to Gdp have reduced, suggesting that it could be due to other factors like barriers to trade or even the currency exchange rates which could potentially impact the contribution of creative goods to the GDP. But despite this decline we overall observe a stable trend of growth.

Our research also attempted to identify the creative goods which India has the advantage in compared to its partner country corresponding to its respective trade year. We attempted to construct a predictive model which could show us the estimated difference it would make if India were to specialise in producing that particular product in that particular trade year. However our results suggested that the means of specialisation made a very negligible difference. As suggested earlier it could be possible due to no diversification of products in the model. Other reasons could possibly be due to limited predictor variables in the model. Future researchers could dive into this area for a better predictive model understanding. But although it showed us negligible results this does not mean that India should disregard the strategy of specialisation. Concerned authorities should formulate effective policies in such a way that there is diversification within the specialisation range of products which India is good at manufacturing.

This implies not the reliance on just one particular type of creative product for trade, but rather based on India's trade relation with its partner country. In this way India could optimally allocate its resources in such a way that it could potentially improve its exponential growth. For example as observed in the revealed comparative advantage analysis, The consistent high comparative advantage values in the "Arts Craft" category can be said that India possesses inherent strengths and capabilities in producing and exporting artistic and craft-related goods. This stability in comparative advantage signifies that India has developed a competitive edge in this particular sector, likely due to factors such as skilled artisanal workforce, rich cultural heritage, diverse craftsmanship, and access to raw materials. Apart from this India could create strategic domestic policies which could promote these industries right from the domestic level. As suggested by previous studies that India lacks an integrated policy framework for the creative sector (SHABA & VERMEYLEN, 2015)The creative sector in India needs to be strengthened so that India could potentially gain from trade, by trading such goods which they are good at producing.

Our findings also suggest that based on the top 10 tier exporting countries of India, it shows us that India does not really have a particular product competitive edge. Every country India exports to has an overall diverse competitive trend with different product categories. This gives India more the reason not to just focus on specialising in just its highest grossing creative product. This could also be a potential reason why our predictive model analysis did not show us the results we expected it to show because of the diverse nature of India's trading pattern strategy with its partner countries. Based on these insights, this caters to our suggestions of this research where our recommendations could potentially provide valuable insights to the concerned authorities in search for a policy framework in a view of a structural change which could potentially benefit India's exponential growth.

4.6.1. Limitations of the research

Future researchers could also dive into this topic beyond the years of 2021 as UNCTADstat reports updated trade data for recent years. Our analysis was also subject to heavy multicollinearity problems and other perfect fit issues, which has been minimally dealt with. Future researchers could improve this research by conducting an improvised version of this research where this issue could be treated with more care especially by expanding on more additional predictor variables to improve the significance of the models. Researchers could also dive into the determinant aspects of creative goods trade in India which is subject to a variety of potential barriers.

In closing, our study illuminates the intricate dynamics of India's creative goods trade, offering insights for policymakers and researchers. As we navigate the complexities of international trade, it becomes increasingly evident that fostering diversity within specialisation and addressing structural challenges are essential for unlocking India's full potential. By embracing this multifaceted approach and continuously refining our understanding through further research and analysis, we can pave the way for a vibrant and resilient creative sector that fuels India's sustainable exponential growth in the global economy.

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