

# 2015

## **MALEFICENT OBLIGATION TO MARKETING OPPORTUNITY: INTERNATIONAL SUCCESS THROUGH OFFSET & BEYOND**



Figure 1: ©USUSgroup (2012)

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## ABSTRACT

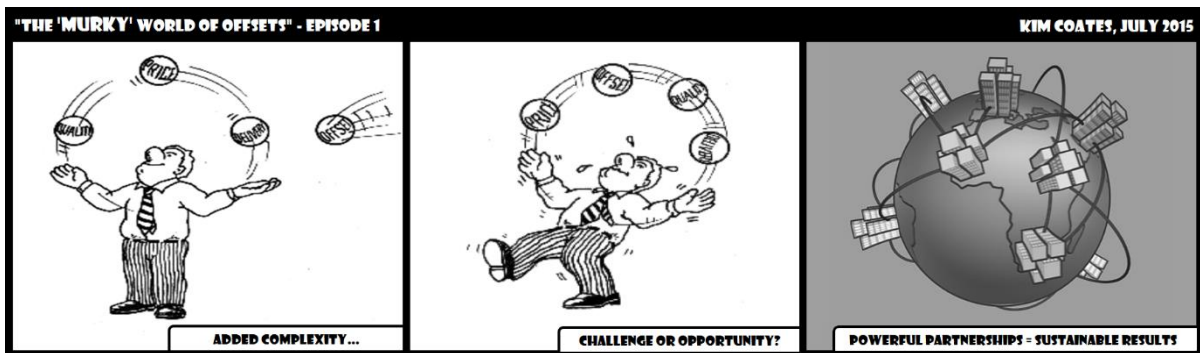
Reciprocal trading is increasing dramatically round the world, driven by growing defense spending in developing countries. Many large procurement deals between countries and contractors contain mandatory offset obligations that have as an ultimate goal the creation of self-sufficient indigenous industries that are capable of fulfilling national security interests.

This research focuses on the effect of offsets on trade between nations and lays out the opportunities and challenges for global marketing. This is important because a greater understanding of offsets will enable companies and countries to develop the skills needed to make offset management SMART. Smart here means specifying offset within the company strategy and taking a proactive approach; measuring and monitoring programmes for efficient valuation; ensuring absorption levels are achievable for the amount of offset requested; working with realistic government policies and establishing corresponding expectations between parties; and finally, timely delivery of the initial programme and ongoing in-country support.

Because of the limited number of companies engaged in offsets, the research here was qualitative, with primary data collected through twenty eight in-depth, semi-structured interviews with industry experts between March and June 2015. The expert panel comprised of senior executives, consultants, industry trade association leaders, trade facilitators, academics, legal and financial specialists in the field, relevant government functionaries, and offset practitioners. The broad participation across the spectrum of offset participants provided a comprehensive overview of offset practice today.

Offset was found to be disruptive, with both burdens and benefits. The research identified that prime contractors and SMEs can leverage their core competencies through offset to access and thrive in untapped markets. Offset can be vital for western companies to gain market entry through close long-term partnerships. SMART emphasizes long-term partnership rather than short-term sales objectives because they have greater potential to maximize returns. Used proactively as a marketing and business development tool, offset can be a key differentiator to winning bids.

The managerial implication of this research is that offsets can properly be considered as a market-winning tool. The research provides insights into key issues that define offset success, it reviews attitudes and perceptions towards offset and its various namesakes, and empirical analysis of the techniques in use today. The net result is to reveal that the offset of tomorrow will be different to that of today, and how industry needs to prepare itself to use offset effectively.



Figures 2 & 3: Salzmann (circa late-1990s), Figure 4: Turbo Squid (2015)

## DEDICATION

Dedicated to two strong and intelligent loved ones:

Grandma Betty Cummins (1918-2015)

&

Aunty Jewil (1928-2015)

RIP

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## CHAPTER 1: INTRODUCTION

### 1.1 Background

In the 21st Century, the question posed to companies in order to maximise survival chances and success factors is not whether to go global, but when (Boukersi 2014).

Entering International markets through a combination of market entry strategies, including countertrade, is an option firms can consider particularly when foreign governments do not allow, limit, restrict, or assert conditions on certain modes of entry (Carpenter & Dunung 2011).

Countertrade is an umbrella term which can be further categorised into barter, counter purchase, buy back, swaps and offset (including direct and indirect offset offset); a host of financial instruments facilitating reciprocal trade (Branch 2000).

Bilateral Barter is a sales agreement involving exchange of goods against goods; a parallel arrangement between buyer(s) and seller(s) instead of, or as well as, a financial payment (Albaum & Duerr 2011). It can be a very resource demanding-process, used by companies to help facilitate a strategic position in certain markets, including developing countries lacking 'hard' currency (Hollensen 2011).

***“...many ways of countertrade--  
a very sophisticated way of conducting international business”***

(BarterNews 2012)

The Buy American Act (BAA) passed by US Congress in 1933 evolved over time into bilateral trading deals, which further developed into the refined international offsets negotiated in practice today (Hoyos et al 2013). Offset is a unique kind of countertrade, forming the focus of this study.

Known under various aliases, the dynamic technological quality of offsets allow them to be seen as a catalyst for creating indigenous industrial development for purchasing nations (Matthews 2014). However regardless of how they are labelled, in Europe offsets stand in contrast to EU Treaty principles (EUR-Lex 2013), driving activity underground as predicted by Petty (1999).

Exporters of defense and aerospace goods to anywhere in the world outside of the EU, are hit by demands for some form of offset as part of the procurement process (Chinn et al 2015).

Negotiations and agreements can be multifaceted, and used to increase sales not only during times of austerity (Brennan 1998), but also prosperity, to gain competitive advantage (LCR 2011).

The US Trade Department and United Nations estimate countertrade transactions to be between 20%-30% of total world trade value, and according to Barter News, the value of these agreements in 2012 was calculated between \$200billion and \$500billion. Clearly demonstrating the importance, here lies the opportunity for global marketers.

***“When variance is in the hundreds of billions of dollars, we know two things.  
First, that something big is going on; the second is that we have no control over it.”***

(Cohen and Zysman 1986, p.42)

Certainly not a new phenomenon – nonetheless a relevant one - countertrade has dominated times of global financial crisis (Ravas 2011). The history of countertrade documents the practice as utilised predominantly pre-World War II, post-Cold War, and at times where payments in currency have been difficult such as the 2008 credit crunch. Whilst in the past utilised fundamentally in military, offset is a ‘contemporary solution’ currently being explored further across other sectors (Nassimbeni et al 2014). Shrouded in secrecy and generally viewed by economists as market-distorting, The Economist (2013) preach offsets are controversial, provocatively referencing countertrade activities as “obscuring a dark art” but acknowledge they are at the forefront of decision-makers minds when weighing up benefits of potential offers.

The US Department of Commerce (2007) outlines the rapid growth of countertrade agreements over the years between not only Western and emerging economies, but also between developed countries. As a commercial mechanism, an innovative marketing technique, or as Schaffer (1990) puts it a “deal sweetener”, the potential of offset could be limitless.

For companies to be successful in the rapidly evolving global marketplace, diverse and creative strategies must be developed and implemented for targeting markets with different economic stances and policies (Douglas & Craig 2010).

## 1.2 Research Problem

In the contemporary world of globalisation, this research aims to build expertise and understanding around countertrade techniques, specifically offset, from an international marketing perspective.

An investigation into the offset phenomenon as a marketing tool to advance international business transactions will be conducted, in order to discover the implications and opportunities available for global marketers.

Offset is an extremely complex topic area, due to a diverse abundance of factors which include; The constantly evolving variances to the policies and regulations that differ from country to country; Requirements influenced by/ from a wide range of regional, national and international interests; Consideration of the political, economic, social, technological and military (PESTM) environments to align the offset requirements with Defense and Industry strategies; The differing products, services and networks of the obligors; The capabilities, capacity and absorption rate of the demanding nation; The financial penalties/ commercial and reputational risks involved. As a consequence, and due to the lack of an industry standard, offset strategy and delivery of obligations by contractors is unique each time executed (Marshall 2013; FT.com 2013; Hoyos 2013; Ungaro 2013; Kirchwehm 2014; Durham 2015; Duthie & Bartusevicius 2015).

Authors including Ravas (2011) and Nassimbeni et al (2014) point out the lack of attention in regards to the strategic potential from a marketing perspective to facilitate internationalisation in the research to date, but that it's clear a number of market factors will continue to push the demand for countertrade activity to new levels.

For defense, aerospace, and other considerably large procurements, practically all importing governments require offsets, emphasising the importance for players operating on the international export landscape to be aware of requirements. The Transparency International Report (2010) alleges offset carry high corruption risks, and that the claim of offset offering economic benefit to countries is a weak one, highlighting that there is little economic literature to support this stance.

How can proactive strategies be devised? What are the managerial implications? If global marketers can overcome the obstacles and potentially negative perceptions associated with offset practices, the application could prove to be a compelling market entry strategy, if maximised to full capacity.

In the name of international trade, awareness would need to be raised and current taboos would need to be broken for this form to receive acceptance and commercial integrity. If offset can widely provide more businesses with options to enter new markets they otherwise couldn't have and increased flexibility for trade when the conventional system is too rigid, it should be exposed (Liesch

& Birch 2001). In fact, Liesch and Palia (1998) stress that it's essential for a company's success and competitiveness to offer a complete portfolio of trading modes.

***"The problems that N-Ren International faced and overcame  
with countertrade are the stuff of legend."***

(Schaffer 1990)

Is it only when operating within a buyers' market, or with developing countries, that create an environment for mutually beneficial offset activities? Should international marketers from SME's as well as the large prime contracts, across multiple sectors, consider ways to get involved with offset? Can offset help facilitate market entry strategies and future commercial success for companies outside of defense and aerospace?

The European Commission (2013) cite a focus on small to medium enterprises (SMEs) in Industrial Participation (also still known as offset), with innovation in SMEs to help fuel growth potential into the multinationals of tomorrow. Despite this, many SMEs aren't aware of offset, let alone how to best utilise it for competitive advantage.

This research is a current topic of social importance because the contribution to national security interests are interlinked to all nations. In addition, the size of the international offset market is related to the volume of international defense trade, which is forecasted to grow to \$1,858.6 billion by 2018 (MarketLine 2014). As much as 30% of world trade is attributable to countertrade activities with the growing market size estimated at reaching upwards of US \$500 billion, showing little signs of being laden by the WTO or EU stances.

Due to the complex nature of the deals, there is a deficiency in the detailed knowledge on best practice management and measurement for SMART offset, partly owing to "competitive silence" on specific negotiations maintained by companies that engage (Paun 1997).

The motivation behind this study is to reconnoitre current perceptions as to if offset is merely an additional challenge to add to those already faced by exporters or, is offset is actually a beneficial opportunity for companies.

Therefore, this research aims to essentially explore the connection between offset obligation, economic development and commercial benefit. Does offset pose a threat to international trade, where do the opportunities exist for international marketing, and how can companies successfully respond?

### 1.3 Research Objectives

In order to confront the research problem, the following four objectives have been developed:

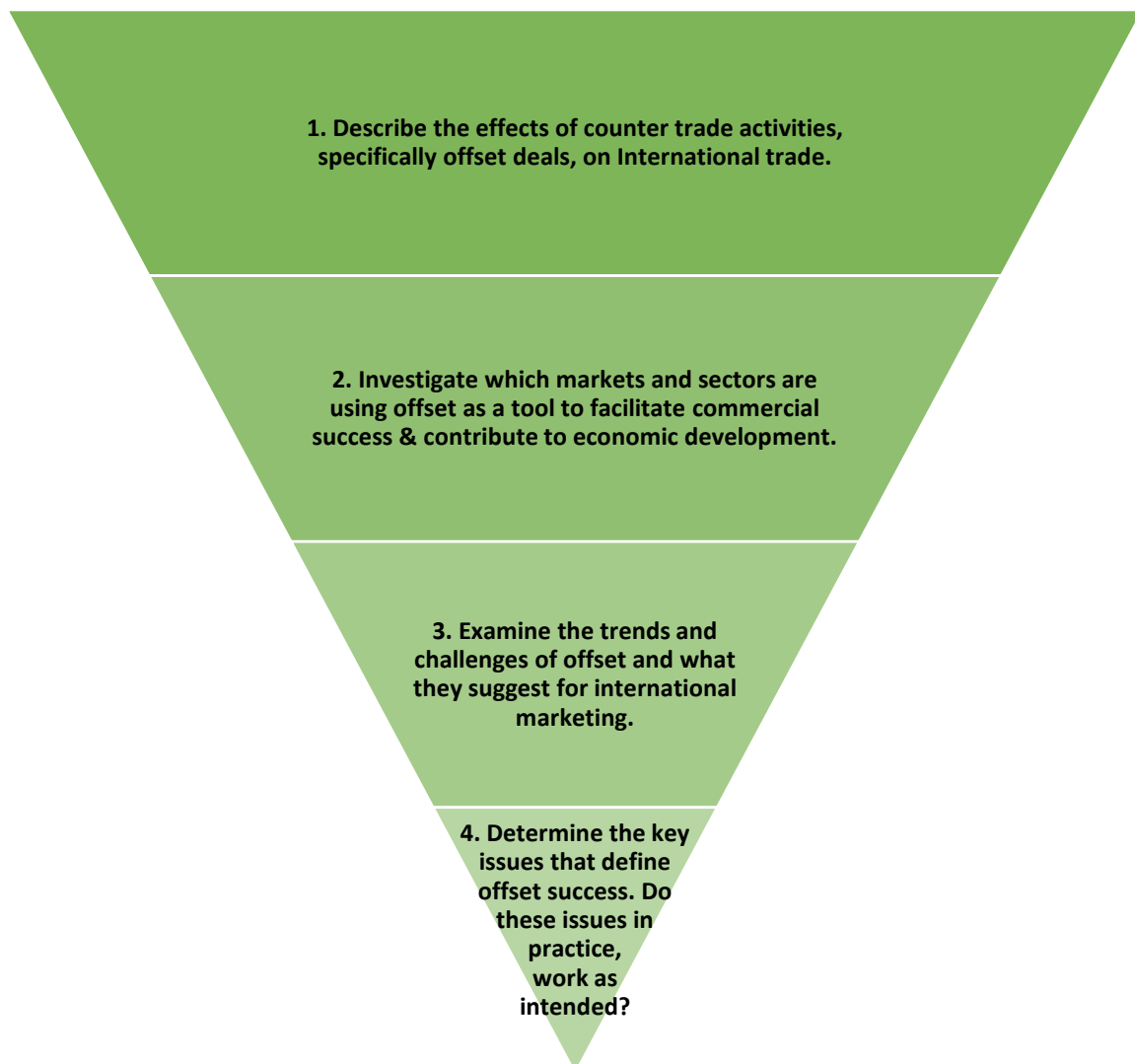


Figure 5: Research objectives

**Objective 1** looks to establish the current counter trade practices that are taking place and the effects they have on international trade, thus to provide a framework for further investigation.

**Objective 2** moves on to review which specific markets and sectors are involved in offset, leading onto the third objective.

**Objective 3** narrows down the focus to specifically assess the future of offset, overcoming risks and the opportunities for international marketing.

**Objective 4** summarises information uncovered to determine best practice to achieve success.

## 1.4 Research Structure

This research project will be composed of six chapters, with the aim to examine marketing opportunities presented by offset, and how best to respond, in international trade.

**Chapter 1** introduces the topic, provides background and the research problem, leading to the research objectives. Scope and definitions are included here, to provide clarity around terms used.

**Chapter 2** literature review investigates the history and motivations of the practice to date, uncovering the themes further explored through the secondary and primary research.

**Chapter 3** methodology section includes the philosophy, approach, design and strategy of the research, in addition to data collection and measuring procedures, providing justifications for each.

**Chapter 4** secondary analysis compiles the findings and interprets the results from the secondary research data sources.

**Chapter 5** comprises of the primary research findings from in-depth semi structured interviews, delving into attitudes and perceptions of reciprocal trade practices, specifically offset deals.

**Chapter 6** concludes the study, addressing the ultimate research aim of highlighting offset as an international marketing tool, with practical steps on how to overcome the challenges of such obligations gathered from the comprehensive medley of academic and industry sources. This section acknowledges the research limitations and provides suggestions for areas of future research.



## 1.5 Scope & Definitions

### 1.5.1 Countertrade

**Terminology:** Chapter 1 of the United Nations Commission on International Trade Law (UNCITRAL) Legal Guide outlines International Countertrade Transactions as follows:

*“Countertrade transactions covered by the Legal Guide are those transactions in which one party supplies goods, services, technology or other economic value to the second party, and, in return, the first party purchases from the second party an agreed amount of goods, services, technology or other economic value”* (UNCITRAL 1992).

**Definition:** In this research, as per in the trade theory, the term ‘countertrade’ is used as the umbrella term which encompasses the many strategies available, further detailed in 2.2.5.

It has been recognised that within the industry and by international trade practitioners, there is differentiation between the terms ‘Countertrade’ and ‘Offset’, in comparison to that of the literature. The main term used today, especially in association with defense contracts, is offset. Traditional ‘Countertrade’ including bilateral barter is said to have been eliminated from defense contracts for over 15-20 years (Marshall 2013).

### 1.5.2 Offset

**Terminology:** Offset is the internationally recognised collective term for: Industrial Participation; Industrial Engagement; Industrial Co-operation; Collaboration Programme; Economic Compensation; Economic Enhancement Activity; Co-production Agreements; Industrial Partnerships; JVs/ Partnerships; Counter Purchase; License Build; Sub-contracting; or any other customer derived term that describes a compensation package via contractual obligations (Marshall 2013).

Recent EU changes have meant there are now more sensitivities around the language used, however, for the purposes of this study the term ‘offset’ will be used to encapsulate the relevant activities.

**Definition:** Offset refers to a range of benefits, given by the seller, to induce a sale or a condition of sale required to a buyer. It is an obligation on an exporter, sometimes voluntary, usually generated by a major defense programme. The purchasing authority will create Offset regulations or frameworks to target specific areas of strategic national/regional developments, create incentives and include measurement/credit criteria. Offset can include: Technology Transfer; Know How; Transfer of Intellectual Property; Hardware/ software; Equipment transfer; investments or other.

#### 1.5.2.1 Direct Offset

**Definition:** Requires supplier to purchase goods/ make investments *related to the sector* of the transaction. This encourages growth of that specific sector within the domestic industry. Usually in the form of co-production, sub-contracting, training, licensed production, transfer of technology or allowable financing activities (BarterNews 2012).

#### 1.5.2.2 Indirect Offset

**Definition:** Requires supplier to purchase goods/ makes investments which may be in a *different stated sector*, at the discretion of the vendor (KPMG 2010). The types of indirect Offset/IP that may be considered, include but not limited to, purchases, investment, training, credit assistance, non-related technology transfer, directed non-related purchasing etc (Marshall 2013).

**Details:** Indirect offset is illegal according to the rules currently in place, however direct offset is legal when #346 is justified. What is currently taking place is many countries are attempting to apply offset with #346, perhaps when not appropriate. Through the primary research there was found to be a lot of confusion and scrutiny currently in the market.

#### 1.5.2.3 Multipliers

**Definition:** As each country has different offset demands, multipliers are a way of giving some preference to transactions, encouraging areas of high need. Multipliers function as an incentive towards certain obligations, with activities the country favours given a 'multiplier' towards the fulfilment of the total offset obligation (Hoyos 2013).

#### 1.5.2.4 Offset credit

**Definition:** The offset value credited after the application of any multiplier and determination of actual added value to the customers economy (Marshall 2013).

#### 1.5.2.5 Delivery programme

**Definition:** The period in which the obligation has to be performed.

- Linked to procurement contract duration: often same timescales
- Potentially milestones at set points (e.g. 50% achievement at half way point) (Marshall 2013)

### 1.5.3 Industrial Participation (IP)

**Terminology:** Not to be confused with Intellectual Property Rights (IPR)

**Definition:** A policy used to stimulate work transfer, growth and new business opportunities. These opportunities are generated by offshore companies to place defense work into the purchasing country as a result of gaining contracts to supply equipment or services to the defense forces. The distinction between Offset and IP is extremely subtle and in many cases indistinguishable from one to another (Marshall 2013).

### 1.5.4 Intellectual Property Rights (IPR)

**Definition:** Legal rights, regardless of whether they are based on legislation that aim to protect the obligor from the resulting transfer of products, services, IP, Offset Transfer of Technology or any other transfer of intellectual property resulting from an IP or Offset obligation (Marshall 2013).

### 1.5.5 National Security Interests

**Terminology:** National Security Interests mean different things to different countries.

**Definition:** *Not defined.* In general, countries want to protect their people and have strong industry.

### 1.5.6 Technology Transfer (ToT)

**Terminology:** ToT

**Definition:** That occurs as a result of an Offset/IP agreement may take the form of Research and Development conducted in the purchasers country by Government Agencies or Commercial/Industrial entities and or Academic Institutions or with the End Users R&D organisation. The Technical Transfer and Assistance provided to the selected partner/s will include; IPR, the transfer of new processes and techniques, Hardware, Software, Training, Tooling, Equipment etc. There are many other, not listed, activities that can be captured within this category and are always a subject for negotiation between the obligor and the purchaser (Marshall 2013).

### 1.5.7 The European Union (EU) & European Defense Agency (EDA) directive 2009/81-EC

**Terminology:** Directive 2009/ 81

**Definition:** Aims to eliminate Offset from within the EU and EEA member states.

### 1.5.8 Exemption: Article 346

**Terminology:** Article 346

**Definition:** Enables Member States to justify offset, but only for specific issues of national security. (Marshall 2013). *'Member States may take measures it considers necessary for protection of or trade in arms, munitions and war material, provided measures do not adversely affect competition in EU for products not intended for specifically military purposes'* (Bird&Bird 2015).

### 1.5.9 Prime Contractors

**Terminology:** Prime Contractors/ Suppliers of offset obligations

**Definition:** Key contracting party with a customer for a specific project. Large platform manufacturer of systems integrator.

### 1.5.10 Small to medium sized enterprises (SMEs)

**Terminology:** SMEs

**Definition:** Any business with less than 250 employees. There were 5.2 million UK SMEs in 2014, amounting to 99% of all businesses (House of Commons 2014).

## CHAPTER 2: LITERATURE REVIEW

### 2.0 Introduction

The literature review refers to the description and critical analysis of previous scholarly works related to the topic; it is not possible to add to the body of knowledge if it has not been determined what is already known. A thorough literature review has therefore been undertaken on past countertrade research, consulting journal databases such as Ebscohost, Emerald, InterScience, Sage, ScienceDirect, and specialist and authority websites. International Trade and market data have been obtained from MarketLine Advantage, Mintel and KeyNote databases.

### 2.1 International Trade & Economic Development

Economic growth occurs when Gross Domestic Product (GDP) increases over time, typically linked to higher living standards (ONS 2015). Sustainable development is about improving that standard of living for the long-term, maintainable without the creation of economic issues that will affect the next generations, and thereby balancing current with future needs (UN 2015).

Since the Industrial Revolution (late 18<sup>th</sup> – early 19<sup>th</sup> centuries), our world has undergone a number of global economic development surges and interlinked international trade expansions to bring us to where we are today in 2015. The growth wave that we are currently experiencing commenced in the 1980's and is seeing start-up nations including India and China embarking on express processes of development (WTO 2014).

Companies from already developed countries are looking outside their core markets to achieve their growth. In addition to the multiple barriers to international market entry, competition for companies operating on the global stage is intense, and ethical considerations regarding collaboration are raised. Commercial performance and corporate social responsibility (CSR) don't always operate hand-in-hand (CIPS 2008).

According to the neoclassical economist Friedman (1970), "there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud."

However in more recent times, an increasing number of businesses are viewing their social responsibility as a priority, with over half of the Fortune 1000 companies now issuing annual CSR reports (Tsoutsoura 2004). Relating CSR initiatives to the international landscape, can see reciprocal trade play a crucial role in facilitating commercial and economic development benefits.

Transparency is important in achieving growth in global trade, and equally importantly is highlighting the differences between non-transparent practices and corruption. Disclosure of information combined with monitoring and comprehensive guidelines assist with transparency (Turnes & Ernst 2014).

The World Trade Organization (WTO) began in 1995 (formed from GATT which started in 1948) and today has 161 member countries and 23 observer governments. The role of the WTO is to deal with the rules of trade between nations, and aims to help facilitate business between goods and service providers, and importers and exporters (WTO 2015).

## 2.2 Countertrade Overview

Countertrade transactions are an instrument of international trade emphasised when:

(i) non-hard-currency ways of paying for important imports are required (ii) the costs of major military import purchases need to be recouped, and (iii) political pressure to sustain economic development activities despite fierce competition in export markets and fiscal deficits (USITC 1985).

As outlined in the scope & definitions section 1.5.1, the term countertrade is used as the overarching noun to describe a number of activities classified under the countertrade umbrella.

### 2.2.1 Motivations for Countertrade

Many authors (Shipley & Neale 1987; Alex & Bowers 1988; Riesman et al 1988; Aggarwal 1989; Lecraw 1989; Neale & Shipley 1990; Schaffer 1990; Paun 1997; Fletcher 1998; Liesch & Palia 1998; Samiee 2003; POMS 2009; Howse 2010; Ravas 2011; Hennart 2013; Baranowska-Prokop 2014) have highlighted the motivations associated with countertrade, comprised of seller's reasons, buyer's reasons, and government reasons (Nassimbeni et al 2014):

- Driven by mutual benefit, an alternative way of growing business.
- When mandated by government.
- Financial factors including a lack of hard currency needed for imports.
- Overcome currency exchange and credit problems.
- Permits local firms to continue trading when foreign exchange isn't forthcoming.
- Attempting to gain or expand entry into foreign and difficult markets.
- Opportunity for developing countries to get closer to those more advanced.
- Transfer technology.
- Increase sales value, volume and share.
- Improve foreign distribution channels.

- Aids a “de facto devaluation of currency” on a deal-by-deal basis.
- Innovative marketing strategy to secure a sale and finance a deal, big or small.
- To establish new trading partners that otherwise wouldn’t have been possible.
- Often used by industrial firms, frequently B2B or B2G (business-to-government).
- Can be a private deal, entertained in order to make the trade happen.
- To enhance company marketing ability.
- To increase company competitiveness, and attractiveness to potential customers.
- Demand-side factors, including the willingness of companies to engage.
- Supply-side factors, including a company’s productive capacity.
- An advantageous way of disposing declining or perishable products.
- Appropriate for a country when goods are particularly difficult to sell.
- Assists by placing the responsibility on foreign suppliers with expertise to market the goods locally.
- Allows companies to achieve ‘experience economies’.
- Alleviate bad debt burdens.
- A source of low-cost purchasing.
- Various advantages depending on both countries economic development levels.
- When a cost-benefit analysis provides profit potential, and resources are available.
- Enables trade to take place when it otherwise could not; Countertrade is better than no trade at all.
- To enter otherwise inaccessible markets, and accessing the necessary supplies.

The incidence of countertrade was found by Hennart and Anderson (1993) to positively correlate with barriers against foreign direct investment (FDI).

Many Fortune 500 companies engage in barter, for various reasons as indicated above. A 1995 study by Damitio et al found only 16.6% of Fortune 500 respondents stated that the reason was to retain hard cash, and the most common reason indicated by 38.9% of the respondents, was to dispose of their surplus inventory.

### 2.2.2 Motivations against Countertrade

Howse (2010) argued that countertrade could therefore be avoided by the removal of barriers to FDI by governments.

Due to managerial implications many companies don't pursue countertrade as a strategy for international market entry; undertaking such efforts is widely considered unappealing due to the perceived complexity, especially for those companies that do not fall within the large blue chip grouping, outlined by the following authors (Banks 1983; Lecraw 1989; Neale & Shipley 1990; LaPlaca 1997; Paun 1997; Fletcher 1998; Liesch & Palia 1998; POMS 2009; Howse 2010; The Economist 2013; Nassimbeni et al 2014).

- Impact on taxes and insurance.
- Absence of transparency and trades taking place in an unofficial manner.
- Product problems such as quality, delivery and timeliness.
- GATT (1984) was designed to promote multilateralism in trade; countertrade is bilateral.
- Lack of needs and values arising from the agreed exchange.
- Time consuming discussions and negotiation problems/ negotiating strength.
- General uncertainty and additional unforeseen transaction costs.
- No in-house use of goods offered by customers and difficulties with resale.
- Issues associated with pricing, and costs including brokerage and facilities.
- Customers going on to become potential competitors.
- Lack of knowledge.
- A potentially out-of-date form of trade.
- To achieve economies of scale.
- Seen as moving away from the goal of free trade and financial flows.
- Associated with facilitating/ disguising dumping.
- Has the potential to introduce bias against SMEs that have less capacity to engage.
- Goes against the purpose of GATT 1984 principles.
- Can lead to domestic corruption and abuse.
- Considered by IMF, WTO and World Bank "a distorting free trade".
- Export Credit Guarantee Department UK do not cover countertrade due to associated long periods.
- Viewed by anti-corruption groups as a method of channeling bribes.



The only official study produced on countertrade and the law, the 'General Agreement on Tariffs and Trade' (GATT 1984) found countertrade did not go against any of the codes accordingly, despite prejudice against it.

The full extent of the field is actually unknown, as Erridge and Zhabykenov (1998) acknowledge the extreme difficulty of identifying the totality of those firms engaged in the practice. Ravas (2011) also conceded forecasting the size is not possible as all information is not collated together.

### 2.2.3 Middle ground on Countertrade

Despite the advantages and disadvantages outlined, Lecraw (1989) proposes it's possible a middle ground exists between both extremes, where value can be added under certain conditions and has been explored by several more authors (Murrell 1982; Parsons 1985; Mirus & Yeung 1986, Mirus & Yeung 1987, Lecraw 1987).

Ravas (2011) emphasises the main difference between countertrade versus traditional financial agreements – an assurance of future goods versus assurance of future cash – is that goods have greater credit enforcement properties, as compared to hard currency.

Countertrade can provide an efficient way of addressing “moral hazard” with the synchronising of transactions, creating leverage and important guarantees for the purchase based on the collaboration (Camino & Cardone 1998, Choi et al 1999). POMS (2009) paper outlines two types of enforcement for such business, being contracts and trust, the latter common in emerging and changing environments without structured legal systems.

Erridge and Zhabykenov (1998) acknowledge the secrecy surrounding countertrade ultimately hinders extensive analyses either way. Only a limited amount of studies which have taken the middle ground position on countertrade have been written from trade theory perspectives (Samiee, 2003; Lecraw, 1987; Mirus & Yeung, 1986).

The foundation for countertrade was simply highlighted by Samiee (2003) as a rational reaction to pre-existing market conditions.

## 2.2.4 Countertrade Strategies

Four overarching countertrade strategies were found to be in existence, compiled as follows.

Correspond to Company Advantage Policy	
<p><b>DEFENSIVE</b></p> <p>Deny directly participating but will make <i>countertrade-type</i> arrangements, avoiding contractual obligations, instead agreeing to reciprocate in some way for the sale.</p> <p><i>Classification: Voluntary &amp; Government-mandated.</i>  <i>Example companies: Bell Helicopter, Borden, EBASCO, Gould, Textron.</i></p>	<p><b>PASSIVE</b></p> <p>Regard countertrade as “a necessary evil”. Participation is at a minimal level and on an ad hoc basis.</p> <p><i>Classification: Voluntary &amp; Government-mandated.</i>  <i>Example companies: Many chemical companies such as DuPont and Smith-Kline, and others inc. Polaroid, S.C. Johnson &amp; Sons, Texas Instruments.</i></p>
<p><b>REACTIVE</b></p> <p>Most common amongst American companies, used as a competitive tool when they can’t make the sale proposed otherwise.</p> <p><i>Classification: Voluntary &amp; Government-mandated.</i>  <i>Example companies: Defence companies such as Grumman International, Litton, and others inc. Chrysler, IBM, Kodak, Xerox.</i></p>	<p><b>PROACTIVE</b></p> <p>These companies have actively made a commitment to countertrade, aggressively exploiting as a marketing tool.</p> <p><i>Classification: Voluntary countertrade.</i>  <i>Example companies: Caterpillar, Coca-Cola, FMC, General Foods, Goodyear, General-Electric, General Motors, PepsiCo, Westinghouse.</i></p>
Derived from Mutual Advantage Policy	

Table 1: Countertrade Strategies (adapted from Alex & Bowers 1988; Liesch and Palia 1998)

Five specific relevant types of countertrade were identified and reviewed accordingly.

TYPES	DEFINITIONS	RECENT EXAMPLE DEALS
<b>1. Barter</b>	<p>The oldest form of countertrade, still practiced today involving the simultaneous exchange of goods and services with no financial payment (West 1996).</p> <p><i>Agreement duration: Weeks/ months</i></p> <p><i>Number of involved subjects: Typically two (POMS 2009)</i></p>	<p><b>2014:</b> China &amp; DRC, natural resources in exchange for infrastructure = \$6 billion (World Policy Institute 2012).</p> <p><b>2012:</b> Turkey (TPIC) &amp; Venezuela, petroleum resources for built houses and infrastructure = Value \$1 billion (World Bulletin 2012).</p> <p><b>2000’s:</b> Switzerland &amp; Brazil, seeds and fertilizers for crops, to help smaller cash strapped farmers (BarterNews 2012).</p> <p><b>1984:</b> Iraq &amp; Italy, oil for frigates (Paun 1997).</p>

2. Offset	<p>Offset refers to a range of benefits given by the seller, to induce a sale or a condition of sale, required to a buyer.</p> <p>Here, specific contractual obligations are applied to major international public procurements. Due to the sheer scale of the deals, these take place within fields such as defense, energy, transport, telecommunications and other forms of infrastructure. Under such obligations, the supplier commits in creating or transferring added-value in its customer's country (ECCO 2015).</p> <p><i>Agreement duration: Several years</i></p> <p><i>Number of involved subjects: A few units to several dozens of subjects (POMS 2009)</i></p>	<p><b>2013:</b> Brazil boosts defense capabilities with Swedish company SAAB, receiving equipment and technology transfer (Defense Industry Daily 2015)</p> <p><b>2011:</b> Japanese-designed stealth fighter highlights the importance of industrial offsets for American company Lockheed Martin (Aviation Week 2012).</p> <p><b>2010:</b> US Navy's Marine One Presidential Helicopter Programme (Nassimbeni 2013).</p> <p><b>1997:</b> Polish, Czech, Hungarian governments purchased advanced fighters from Western Countries as a 100% offset package; all of the fighters had to be manufactured in Poland, Czech Republic and Hungary (Hartung 1998).</p>
3. Counter-Purchase	<p>An arrangement whereby the exporting partner agrees to buy unrelated goods from a specific list drawn up by the importer, in addition to financial compensation if there is a difference in value (BarterNews 2012).</p> <p><i>Agreement duration: Months/ years</i></p> <p><i>Number of involved subjects: Typically two (POMS 2009)</i></p> <p><i>* Not a focus of this study.</i></p>	<p>Europe (FCI) &amp; Romania, ball bearings and chair frames for control valves (Ravas 2011).</p> <p><b>1988:</b> PepsiCo &amp; India, purchased tomatoes with local profits for PizzaHut business (Carpenter &amp; Dunung 2011).</p> <p><b>1980's:</b> Russia &amp; Japan, Siberian timber for construction machinery (Paun 1997).</p>
4. Buy		

<b>back</b>	<p>An arrangement under which the exporter transfers technology to the importer to produce a certain output; the exporting party then agrees to purchase a certain percentage of the plant's output. (Albaum &amp; Derr 2011).</p> <p><i>Agreement duration: Several years</i></p> <p><i>Number of involved subjects: Typically two (POMS 2009)</i></p> <p><i>* Not a focus of this study.</i></p>	<p><b>2008:</b> South Korea (KNOC) &amp; Brazil, drill ships, storage, and offloading platforms for stakes in oil fields; KNOC to manage (BartnerNews 2009).</p> <p><b>2006:</b> China &amp; Iran, technology &amp; equipment to develop oil field; China agreed to buy 10 million tonnes/year of LNG, for 25 years (Feng et al 2013).</p>
<b>5. Swaps</b>	<p>Occurs when firms exchange foreign debts for equity swap, or equity for equity swap (Krugman 1995).</p> <p><i>* Not a focus of this study.</i></p>	<p><b>2012:</b> German company (EON) took 50% stake in Turkish power producer Enerjisa Enerji AS in exchange for EON's interest in eight hydroelectric power plants in Germany = Value €1.5 billion (Andresen &amp; Ersoy 2012).</p> <p><b>2001:</b> Debt for equity swap, France (SG) bought Czech bank Komerční. The SG price was to settle the old debts owed (SG 2001).</p>

Table 2: Types of Countertrade (*various sources as listed*)

## 2.3 Focus on Offset

### 2.3.1 Motivations for Offset

In practice, offset is a business winning discriminator and develops supporting relationships between Governments and industrial and economic suppliers, creating partnerships. Well executed offset programmes can provide long term sustainment opportunities and competitive advantage for follow on contracts, improving repeat business and profit margins (Marshall 2013).

#### **Buying side includes:**

- Political advantages; Governments can define and meet socio-economic objectives;
- Can create/ maintain local defense-related industrial capacities;
- Economic benefits including creation/ improvement of local employment opportunities.

#### **Selling side includes:**

- Key differentiator to stand out from competitor bids, associated economic benefits;
- Diversification, Foreign direct investment (FDI) and creation of partnerships;
- Sustainability and future proofing the supply chain.

(Tricolom 2015)

Examples of deals that bring great benefits for purchasing countries' economies include those where credit lines are guaranteed for local manufacturers, thus reducing long-term financing costs (The Economist 2013). Using a multinational's good standing in this way is, the article quotes Mr Hyman - current adviser to African governments looking to use offsets - "an efficient means of making possible transactions that otherwise wouldn't be viable".

### 2.3.2 Motivations against Offset

In addition to those already outlined in section 2.2.2, particularly with offset deals, poorly executed programmes can cause both significant commercial penalties and reputational damage for a company. This adds further risk to the business contract. Transfer of technology and jobs are also at risk from being taken away from the home market.

The academic literature available on offsets suggests that the associated benefits described are elusive. Brauer and Dunne found in 2006 there was virtually no compelling evidence that offsets create or sustains jobs. In 2013 The Economist described "the murky world of offsets", explaining "industrial participation" as the now preferred terminology and relating the murkiness to difficulties in determining which party really pays for the programmes.

### 2.3.3 Middle ground on Offset

Whilst offset has the ability to create and sustain factories for manufacturing, workforce expertise, and a supplier base to support future requirements; commercially, agreements can refute some of the potential benefits accrued that could otherwise could have been conducted in the home country (U.S. Department of Commerce BIS 2010).

### 2.3.4 Market Trends for Offset

Guriev and Kvassov (2004) revealed a clear relationship connecting market concentration and the level of countertrade activity; in a more competitive market, barter disappears. This is found to not be the case for offset deals, with mandatory obligations imposed by many governments.

Recent data shows the offset form of countertrade is being utilised by a range of sectors including defense, aviation, manufacturing, mechanical tools as well as public utilities; previously offset was predominantly used within defense (Nassimbeni et al 2014).

Companies are not required to report on deals and therefore determining the size and total share of world trade is unfeasible (Bates 1986, Martin 1996). Samiee (2003) confirmed published countertrade data are fragmented and not complete to provide an adequate base for exposing detailed data.

Further research on modern global trends will help to establish best practice for proactive management toward countertrade and its use as an instrument in maximising companies' internationalization (Fletcher 1998).

### 2.3.5 Offset Types

#### 2.3.5.1 Direct Offset

Direct offset ensures the benefits of the obligations are directly related to the supplies envisaged under the principal contract (Verma 2009). A company's offset obligation is generally worth between 50-100% of the value of the contract (Hoyos et al 2013).

**An example of a successful direct offset**, prior to merging with Boeing, American aerospace manufacturer McDonnell Douglas supplied an offset package of ToT equivalent to 100% of a sale value to Israel, which is attributed to enabling Israeli defense companies to successfully compete as exporters in their own right today (Mitra 2009).

**An example of an unsuccessful direct offset**, the failure of the notorious Al Yamamah deal between the UK and Saudi Arabia have been linked to corruption (BBC 2010). "There is no disguising the fact that the Al Yamamah offset programme has only achieved limited success" (Matthews 1996).

### 2.3.5.2 Indirect Offset

Many nations have allowed indirect offsets to act as catalysts in the growth of non-defense related key industries.

***"Indirect offsets, when routed properly have provided a key source of investment and growth for the economy."***

(KPMG 2010)

Today, defense contractors are moving toward more exotic plans to satisfy growing offset obligations, with some deals having little or no relationship to the weapons being sold (Pearl 2000).

**An example of a successful indirect offset**, Russian aircraft manufacturers Sukhoi, transferred pioneering *space* technology to the Malaysian National Space Agency in order to fulfil offset obligations which related to the sale of its aircraft (Coleman et al 2014).

**An example of an unsuccessful indirect offset**, UK missile manufacturer Raytheon, establishing a shrimp farm in Saudi Arabia, seemingly too far removed from core offering (Hoyos 2013).

### 2.3.6 Marketing Considerations

The European Club for Countertrade and Offset (ECCO 2011) recommends increasing awareness of the abilities and challenges encountered by offset throughout the industry, so that companies can best respond to opportunities with a prospect of improving productivity, competitiveness, and reducing risks.

In defense, offsets are used as a tool to motivate purchase, by offering extra advantages to the purchasing nation and can be described as a widespread sales technique (Durham 2015).

The Transparency International report on offsets calls on governments and industry alike to work together and raise the integrity of what they state are 'disturbingly non-transparent' deals.

***"This makes offsets an ideal playground for corruption."***

(Transparency International 2010)

Brauer and Dunne (2006) conducted a review of empirical knowledge regarding offsets to gauge how well they work in practice, and found generally offset deals are more costly than standard arms purchases, and did not appear to contribute substantively to general economic development.

However, Ungaro (2013) acknowledged that whilst that might be the case, the days of “off-the-shelf-sales” are over.

Avascent reported in 2012 that defense companies are facing an unprecedented challenge as foreign markets impose new offset requirements that are becoming larger, stricter, and ever more complicated. As this is putting strain on many companies internal capacity to keep pace, five steps to creating an effective offset strategy were proposed:

1. Elevate offsets to a strategic priority for senior executives
2. Educate and broaden the universe of internal stakeholders
3. Be visible (ensure transparency)
4. Implement business fundamentals
5. Leverage partnerships

Larger companies are said to employ dozens of dedicated offset specialists to give them an edge in bidding, increasingly important as offset growth continues to be fuelled by American and European contractors’ ramping up efforts to sell outside of declining home markets (The Economist 2013).

Kakra (2005) found countertrade to be a vital strategy tool for proactive global marketers, although still a reactionary trade practice. To fully utilise the opportunities, the importance of developing appropriate international market entry (and countertrade) strategies were identified.

Saimee (2003) conducted a study from a marketing process perspective and found that a direct consequence of countertrade, due to its very nature, forms the concept of ‘reverse marketing’ whereby the methodical processes of planning and implementing are surpassed, leading to cost inefficiencies. Several earlier studies reported the key issues encountered in such deals are indeed marketing-related (Bussard, 1983; Neale & Shipley, 1990).

Continual negotiations for these types of deals take time, even spanning across many years requiring long term strategic planning (Kassaye, 1985).

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## 2.4 Summary

Countertrade, the overarching term representing various types and strategies outlined, imposes reciprocity conditions on international suppliers, much like a contra agreement allows for collaboration in domestic markets. Countertrade provides “contractual requirements that are designed to compensate buyers for their selection of the supplier and that commit the latter to undertake, as a condition of sale, specific performance obligations” (Verzariu 2000).

Countertrade activity has been named as one of the most fascinating and essential international business issues of the 1980’s (Lecraw, 1989). Today, offset is the added value that purchasers are looking for, with suppliers tuned into the power of offsets within the motivations of democracies (Durham 2015).

***“There’s going to be a fundamental change in the global economy unlike anything we’ve had since cavemen began bartering.”***

Arnold Baker, economist (Business Week 1998)

Member groups that provide support networks for practitioners in the field of offset, believe that it is possible to express the complexities of such deals in simple terms and make them accessible to all in the rapidly expanding field of Offset (ECCO 2011).

## CHAPTER 3: METHODOLOGY

### 3.0 Introduction

This chapter outlines the proposed research design and methods to be used to address the objectives and the justifications for each. Furthermore, it examines the ethical considerations followed in conducting the research.

OBJECTIVE	SECONDARY	PRIMARY		RATIONALE
		QUANTITATIVE	QUALITATIVE	
1. Describe the effects of counter trade activities, specifically offset deals, on International trade.	✓			Extensive literature review to guide exploratory research questions.
2. Investigate which markets and sectors are using offset as a tool facilitate both commercial success and contribute to economic development.			✓	In-depth interviews to ascertain what is taking place in the world of offsets, direct insight from the field.
3. Examine the trends and challenges of offset and what it suggests for international marketing.	✓		✓	Secondary and primary data combined to determine the perceived & actual marketing implications.
4. Determine the key issues that define offset success. Do these issues in practice, work as intended?	✓		✓	Secondary and primary data combined to determine the key issues in theory and practice.

Table 3: Research Objectives & Rationale

### 3.1 Research Philosophy

The research philosophy entails the development of knowledge, and the nature of it in relation to the research in question (Saunders et al 2012). In consideration of this study, it will aim to develop the knowledge of how SMART offset strategies can be implemented in practice in order to overcome challenges and create mutual benefits through partnerships in international trade.

Out of the numerous research philosophies available, the following overarching approaches have been considered, and will be discussed in more detail: positivism, interpretivism, and realism.

**Positivism** allows for the creation of law-like generalisations, with the main assumptions here being behaviour is predictable, rational and understandable and that people are much alike. A scientific approach founded on hypotheses and interpreted into empirical statistics (Hughes & Sharrock 1997), positivism was considered in order to help explain the causal relationships between different variables related to the subject topic in an objective way.

However due to the quantifiable observations this approach enables, it was found to not be appropriate for the study at hand which looks to delve into objects independently of our knowledge of their existence (Saunders et al 2009).

**Interpretivism** is based on understanding and interpretation. Whereas positivism looks at general patterns to turn them into theories, proponents of interpretivism argue there is too much emphasis on science in our society. The assumption here is that reality is not objective but socially constructed, multiple and holistic (Ozanne & Hudson 1989).

Saunders et al (2009) state this approach is useful for business research due to an emphasis on the interaction of people in specific scenarios. Therefore interpretivism was specifically considered for this study, however being relativist and highly contextual, a realist approach was found to be more acceptable.

#### 3.1.1 Realism

Taking aspects from both positivism and interpretivism, realism is an epistemological viewpoint, suggesting knowledge is created from both fact *and* perception. This philosophy suggests there is a reality interdependent to that of the mind (Saunders et al 2009), which is truly at the heart of this study. The two main types of realist philosophy are direct and critical; direct realism understands reality based on what is seen, whereas critical realism is founded on understanding and interpreting influences behind reality (Bryman & Bell 2007). Thus, the critical realism philosophy has been selected accordingly, utilising qualitative research to fit with the objectives of the study.

## 3.2 Research Approach

The selection of the research approach helps to inform the decision regarding the appropriate research design, and can assist in highlighting limitations and constraints that a particular application might have over another (Saunders et al 2009).

**Deductive reasoning**, starts with a given theory as the basis for which hypotheses are developed, and then confirms these with the use of data acquisition from surveys and experimentation. In contrast, an inductive approach instead begins by focusing on collection of data, in order to build up to the foundation of a theory (Chisnall 2005). Whereby both approaches were considered and found to be relevant for business research (Bryman & Bell 2007), for the purposes of this dissertation deductive reasoning was not selected as a theory is not being tested (Saunders 2009).

### 3.2.1 Inductive

From the literature review, issues were revealed and questions raised. Therefore the research approach used will be inductive in nature, developing and building theory as a result of the analysis in order to inform, examine, and understand (Mangaliso & Lewis 2012). This reasoning is less rigid than deductive, taking a smaller sample size, most likely qualitative in nature (Bryman & Bell 2007).

This research aims to investigate what is currently taking place across the industry in this space and why. Insights into the impact of the European Directive and anti-offset policies, along with perceptions and transparency issues will be probed to illustrate a comprehensive view of challenges faced and gauge strategies for success from marketing perspective. Therefore, the researcher will utilise what is informally known as the 'bottom up' approach of inductive reasoning, moving from specific observations to broader generalizations and theories (Burney 2008).

## 3.3 Research Design

A strong research design provides a plan to answer the research problem, ensuring information collected is consistent with the research objectives and provides structure to allow for this to be obtained within the project constraints (Saunders et al 2009). Acting as a 'blueprint' (Cooper & Schindler 1998), three research designs dominate business research and have been considered as follows.

**Descriptive** research describes data and characteristics about the population being studied. This design usually relies on secondary data alone to portray a profile of situations or events that are factual and systematic, but cannot describe the causes and therefore was discounted for this study.

**Causal** research however attempts to study the cause-and-effect relationship between two or more variables (Hair et al 2000), and is usually preceded by exploratory and descriptive research studies. Causation is often tested through experimentation or statistical analysis. As this research design is found to be difficult to use in academic business research, an exploratory theory was instead considered.

### 3.3.1 Exploratory Theory

Using qualitative techniques, the research design is exploratory, because the problem has not been clearly ascertained. Exploratory research helps to provide insight and clarity into the research problem before further research is planned (Saunders et al 2009). Secondary data will be reviewed, but as it does not completely meet the data requirements, in-depth interviews will then also be conducted. The research problem seeks to find where marketing opportunities lie despite perceived challenges and how to achieve success through offset in practice, thus this inductive approach allows for flexibility if and when new or unexpected phenomena are encountered.

## 3.4 Research Strategy

The choice of research strategy is broadly divided into secondary and primary research. The research approach will be qualitative in nature, collected through in-depth interviews with experts to get a genuine understanding of the effect of reciprocal trade practices, specifically offset, and the potential marketing opportunities including key issues for success.

To investigate the objectives, secondary research is to be initially conducted, followed by primary research. The preliminary research will be used to help define the primary data needs.

### 3.4.1 Secondary Sources

Collecting secondary research prior to the primary research, allowed for the identification of relevant issues and major variables to be considered before the interviews commenced. In addition, there were significant cost and time advantages obtained by utilising secondary market data (Bryman & Bell 2007). Two types of secondary research were gathered; secondary market data and academic literature.

#### 3.4.1.1 Market Data

Market data collected included research on current and future market industry trends, from sources including Keynote and Mintel reports, government/ regional/ national data, and offset industry and association sources. Due to the nature of reciprocal trade agreements in general and the clandestine

around undertaken deals and specific obligations, little detail on actual deals and figures are available. This may impact results when comparing findings and analysing trends (Saunders 2009).

#### *3.4.1.2 Academic Literature*

Academic literature reviewed included theory, discussion and research of concepts with the aim of further developing knowledge, from sources such as journals, research/ conference papers etc. This secondary research is used in order to provide useful background information relating to the industry (Craig & Douglas 2005). This review was extremely important in order to ascertain what is already known, and where the gaps in the knowledge lie. Careful consideration of the sources, accuracy and timeliness of the information was required (Saunders et al 2009).

#### *3.4.2 Primary Sources*

The primary data of the research study is up-to-date and has been collected specifically for this research topic. Primary research is new and collected specifically to meet the needs of the research objectives (Saunders et al 2009). Research choices can include qualitative, quantitative, or a mixed method approach.

**Quantitative** research seeks to quantify data and applies some form of statistical analysis. This type of research helps to understand ‘what’ is happening and ‘when’ (the frequency) it occurs, and is usually related to descriptive and causal research. Quantitative techniques will not be pursued for this exploratory research study due to the specific problem requirements of obtaining deep insights.

##### *3.4.2.1 Qualitative*

Qualitative research, however, is based on small samples and provides understanding of the problem setting and will be deployed for this research. The ability to probe respondents to uncover subtle and complex issues within a small sample will help to understand the ‘why’ of behaviour which this research seeks to address.

As this study sets out to explore and interpret perceptions, attitudes and motives towards the research issue, a range of qualitative approaches were considered by the researcher, with in-depth semi-structured interviews found to be the most appropriate choice. Qualitative research aims to go beyond the rational, access conscious and unconscious thoughts and feelings, drawing on psychology. “Qualitative research is centrally concerned with understanding things rather than with measuring them” (Gordon & Langmaid 1988).

In-depth semi-structured interviews, known as ‘qualitative research interviews’ (King 2004), enable flexibility in sequencing of questions as well as exploring other areas of interest should they emerge

from the respondent (Saunders et al 2009). The creation of case studies to triangulate the primary data collection was considered, but rejected due to time constraints, with adequate data gathered from the interviews.

### 3.5 Data Collection Method

Data collection for this research study was broken down into two phases, beginning with secondary research collection and then moving onto primary research.

#### 3.5.1 Phase #1: Secondary Research Collection

As per section 3.4.1., in addition to collating up-to-date industry material provided by the European Club for Countertrade and Offset symposium #10, held in June 2015.

#### 3.5.2 Phase #2: Primary Research - Qualitative In-Depth Interviews

The qualitative research was conducted in order to investigate, examine, and increase understanding of the three objectives outlined, and make an assessment in regards to how offset can be used as a successful tool for international marketers

Interviews were conducted face-to-face where possible, over the phone, or on skype. Postal mail surveys and quantitative research techniques were both ruled out due to the sensitive nature of the discussion. However, email interviews were conducted in the rare cases that a mutually convenient time could not be arranged with the interviewee.

Although only a small sample, for an explorative investigation the size was required to be adequate (Guest et al 2006) as it included a wide and diversified international presence from experts with an authority on the subject, but possessing different agendas, backgrounds and roles in the process.

The interviews were preceded by a screening phone call or email conversation, and the potential interviewees were emailed a document outlining the objectives of the study, the adopted methodology, a glossary of the terms to be used and a sample of the questions to be discussed. This was to help to avoid any misunderstandings or comprehension of the interview requirements. The core question areas covered can be found in Appendix I. The question list was not exhaustive and evolved throughout the research process.

The researcher undertook NVivo training prior to data analysis commenced; a software tool that allows for structuring and analysing large quantities of qualitative data. Instead, Microsoft excel was the chosen software to arrange the interview transcripts, with a number of columns, tabs, and search techniques utilised to find patterns and arrive at outcomes.

### 3.6 Measurement & Scaling Procedures

Various in-depth interview types exist including mini-depth, semi-structured and paired/triangulated interviews. Cohen & Manion (1994) also listed structured, unstructured, non-directive, and focused. Semi-structured interviews were chosen for this study in order to utilise probing techniques, however limitations around depth of data were accepted.

Upon formulating the research questions, it was important to ensure all elements from each objective were included in order to answer the overall research problem. Semi-structured to form the base of topics which needed to be covered, questions aimed to be clear and on point, avoiding any leading or potential bias. Open-ended questions were used in order to identify concepts and develop further insight into the study. Whilst an ideal quota had been established, interviews were to be carried out until data saturation took place, meaning until any extra data collected provided little - if any - new insights (Saunders et al 2009).

Rapport was built early with respondents through the sharing of all contact details, a connection on business networking site LinkedIn, and the acknowledgement of consent, confidentiality, and option for anonymity in writing provided at first contact.

Due to the sensitive nature of the topics discussed, and high profiles of certain companies interviewed, no voice or video recordings of the interviews were taken, to allow for a more open and relaxed conversation to proceed. Responses were instead taken on a combination of typed and handwritten notes, later transcribed, absorbed, sorted, and analysed.

#### 3.6.1 Pilot In-Depth Interview

Draft interview questions were subjected to pilot testing prior to the planned interviews taking place. This was to help assess the validity and the likely reliability of the data that was then to be collected from the final interviews (Saunders *et al*, 2009). The questions were first formulated carefully and pilot tested with three test participants in an unstructured setting, and asked if they deemed any recommendations necessary. The pilot testing was also essential to gauge approximately how long the interviews would take to complete, in order to provide a guide in advance to the panel. Amendments to the final interview questions were then be made accordingly; to the order, flow, wording, and some questions were removed completely if were deemed repetitive, unnecessary, confusing, and/or redundant. The length of the survey was shortened in an attempt lower average interview time to under 2 hours, and repeated but rephrased questions were used to help with probing techniques.



### 3.6.2 The Sampling Process

The key goal of the sampling process is to be as representative as possible, and is of utmost importance in order to reduce the amount and ensure the quality of data collected. Sampling has been used because compared to conducting an actual census, it is far less expensive, time consuming, and a more realistic approach for market research (Ghauri & Grønhaug 2005).

#### 3.6.2.1 Target Population

A non-probability sampling procedure was used for this research as there is no sampling frame. Probability sampling is used when every member of the population of interest is known and has a probability of selection, however for this research, that is not the case (Bryman & Bell 2007).

Quota sampling identified subgroups that needed to be included in order to build out a sample identical to the population. Issues with this can include selection bias, and further bias with quotas. Convenience sampling would also not be appropriate due to the specific nature of the offset research proposed.

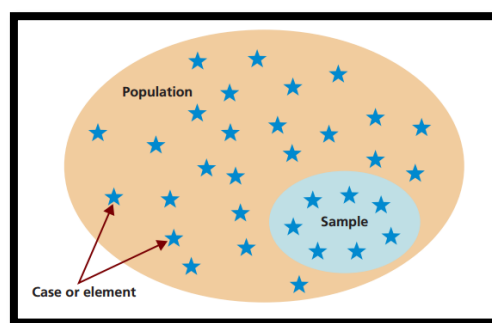


Figure 6: Population, sample and individual case (Saunders et al 2009)

#### 3.6.2.2 Sampling Frame

Interviewees were collected through relevant industry groups and associations online and on business social networking site LinkedIn, academic recommendations and corporate contacts, and through snowball sampling, which allowed selection of additional respondents based on referrals (Saunders et al 2009).

One to three interviews with contacts from each of the following breakdown was targeted in order to build a holistic view of industry practices and perceptions:

- Practitioners involved in offset:
  - Prime contractors
  - SME's

- Academics
- Trade journalists
- Trade associations
- Trading companies
- Government officials
- Consultants in international trade
- Offset experts: Legal/ Financial side

In order to avoid age or location bias, a sample of mixed ages and representing each continent were targeted to obtain a global representation.

#### *3.6.2.3 Sampling Size*

A sample size of 20-30 expert practitioners in the field were targeted, with 28 interviews conducted in total, averaging just over 1 hour in length each.

Refer to Appendix II for qualitative interview schedule including company and identification of roles breakdown.

#### *3.6.2.4 Sampling Procedure*

Screening questions were used in order to confirm eligibility of the interviewees; respondents were required to acknowledge that they fitted into the criteria outlined, and that they had adequate experience within their related field of no less than 10 years to participate.

Interviews were conducted in person wherever possible, to create a friendly atmosphere and in order to gauge non-verbal responses and body language. When face-to-face interviews were not possible due to geographical constraints, skype was the preferred communication method followed by telephone.

It was important to carefully plan out all the eventualities prior to commencing the interviews as a guide for steps that needed to be undertaken in certain scenarios (such as but not limited to interviews stopping half way through, and having a back-up plan if there was a loss of broadband connection for skype calls, such as requesting a fixed line phone number prior).

### *3.7 Ethical Considerations*

To avoid undertaking any immoral behaviours, or asking interviewees unethical questions, the principles of Code of Ethics were applied at every step.

**Transparency:** The interviewees were provided with a clear understanding as to why the information was being collected and for what purpose (academic research only) it was to be used; all outlined and emailed in a document prior to the interviews taking place.

**Consent:** Respondent consent was gained prior to commencing, and they were made aware of having an opt-out option at any time.

**Confidentiality:** If respondents requested for themselves, their organisation, or a deal in question to remain anonymous, reassurance was provided in writing and additional steps taken to ensure it was not revealed.

**Objectivity:** All questions were carefully formed in order to avoid any potential leading.

**Honesty:** Trust was gained through open and honest relationship dealings with all respondents, and at all times; no deception was used to establish any information.

### 3.8 Method of Analysis

Qualitative data was collected by the researcher, that is non-numerical, and cannot be quantified. The findings were classified, summarised, and then analysed through the use of conceptualisation. In order to recognise certain potential patterns and trends, a structure was first developed (Saunders et al 2009). Strong quotes and comments extracted from the interviews were then used in order to add weight to the final presentation of results.

Triangulated approach to data acquisition was considered through the use of case study creation, to help provide a greater data validation, however was disregarded due to thorough research findings from the qualitative interviews.

Analysis and interpretation occurred continually throughout the interview process, subsequent interviews focused on identified areas of relevance and developed accordingly.

Thematic analysis was used to sort the qualitative findings into themes. This helped to compare and contrast results, finding trends and patterns amongst the transcripts. A loose framework was then implemented to allow for data reduction, and display of key findings related to the research objectives.

## CHAPTER 4: SECONDARY ANALYSIS

### 4.0 Introduction

Analysis of secondary research is deemed of particular use when investigating the business landscape, due to the complex decision making structures and quality of information often available (Brennan et al 2011).

This research provides a comprehensive overview of countertrade techniques in international trade. It focuses on the most prevalent form today, offsets, to reveal insights about the effects, uses, pros and cons, and potential marketing benefits.

The findings are based on themes uncovered in the literature review. The secondary data collection aims to answer the first objective, describing the effects of countertrade activities, specifically offset deals, on international trade. The evolution of practices have progressed steadily over the last decades, increasingly capturing the attention of governments and company executive boards, and unveiling promising opportunities within the civil sector.

Up-to-date industry insight was collected on offset to provide an adequate base to answer the third objective, which was to examine the related trends, challenges, and marketing opportunities. Here, practitioners identified their customers are becoming increasingly demanding in requests for offset, particularly for ToT and state-of-the-art cyber capabilities.

Finally, evidence collected from the secondary research was applied to help answer the fourth research objective, determining the key factors that define offset success. Multiple risks are exposed, and best practice management points to pursuing partnerships for collaborative success.

This all leads on to the primary data collection, to assess if the issues outlined, work as intended in practice.

## 4.1 Effects on International Trade

### 4.1.1 Evolution of Offset

Offset has developed in defense procurement over the last four decades and continues to evolve today, playing a major role global defense procurement. Usually mandatory, sometimes voluntary, these are compensation practices that foreign governments include within their contracts that suppliers enter into as a condition of purchase in defense procurements (Dehoff et al 2014).

**1930-60s** The Buy American Act implements restrictions favouring US-made goods in the US.

**1960-90s** Global practices evolve, with many developing countries beginning to demand offsets to develop local defense and aerospace industries.

**1990-00s** Formalisation of offset policies take place internationally, whilst the WTO officiates their anti-offset stance with two main allowances: new developing country members are exempt, and countries do not have to reveal practices when they're connected to 'national security interests'.

**2000-10s** Prior to EU regulations officially going into place in 2004 & 2009, offsets boom in Europe.

**2010-Today** Cutbacks to military spend in US and EU expose the reliance on exporting to new markets for growth, with developing countries' offset demands becoming increasingly arduous.

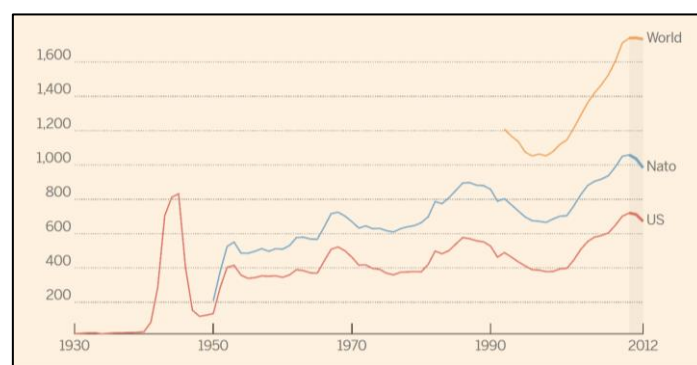


Figure 7: US, Nato and World spending on defense, \$billion USD, constant 2011 prices (Hoyos et al 2013)

Increasingly, examples of offset requirements in large non-defense contracts including civil engineering, construction or infrastructure projects (Marshall 2013) are paving the way for a significant shift across the international trade landscape. In the instance of weighing up bids, defense offset packages are at the forefront of decision-makers' minds (The Economist 2013), and therefore it could be reasonably expected this conduct will be the same for civil offset packages.

Due to the increasing economic and strategic importance, awareness of offsets is being raised and a more up to date understanding of trends is required to gauge what the future holds (Ungaro 2013).

### 4.1.2 Market Growth

International defense spending grew moderately between 2009 -2013. The global offset market size is related to the volume of international defense trade, which reached a value in 2013 of \$1,594.1 billion, and is forecasted to continue to grow by 2018 and have a value of \$1,858.6 billion (MarketLine 2014).

Figure 8 shows the increase in purchasing power of the developing nations, and decline for the US and EU, with the shift signifying the future trends and opportunities for exporters.

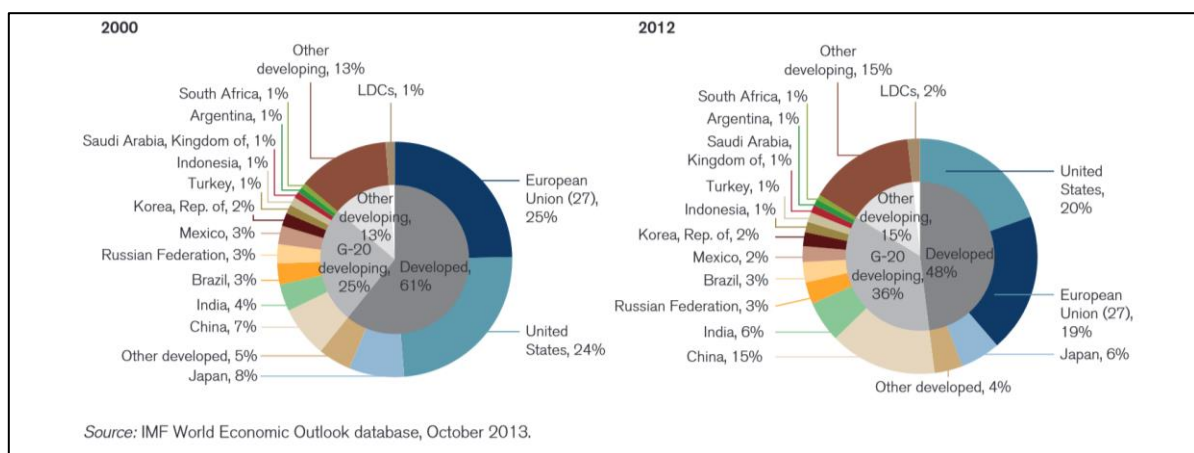


Figure 8: Shares of selected economies in world GDP at purchasing power parity, 2000-12 (MarketLine 2014)

The emergence of the new high growth markets offers the industry the prospects of broadening supply chains, creating access and new relationships with local industries, and potentially new competitors (PwC 2010). Aggressive competition amongst suppliers is being seen, as global defense budgets in countries including Japan, India and the Middle East are rapidly growing (Duthie & Bartusevicius 2015).

In 2013 The Financial Times calculated the relative size of the top western defense companies offset obligations, using a 'conservative methodology' at more than \$75 billion. As shown in Figure 9, according to Avascent (2013), the market is expected to reach \$500 billion by 2017, however the mechanics to 'track, manage, and report on offsets' hasn't been able to keep up with this acceleration of growth.

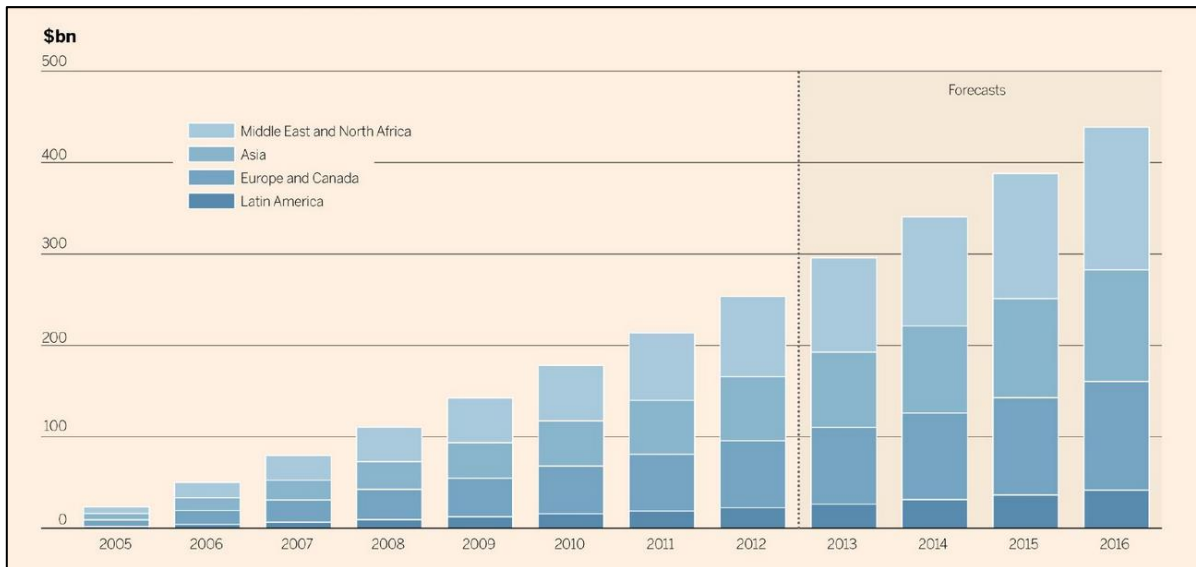


Figure 9: Cumulative offset obligations by region (HIS Jane's, Sipri, Bloomberg, Avascent 2013)

Figure 10 shows the forces driving competition in the global defense spending market. The major players here are large companies with well-established reputations and diversified offerings.

**Buyers** are the governments of sovereign states. The defense market in most countries is therefore a monopsony; a “buyer’s market”.

**Suppliers** are the raw materials, parts manufacturers and industry personnel (prime contractors & SMEs).

Rivals are prevalent in creating a highly competitive environment, although threat of new entrants is said to be weak due to potential new players requiring large-scale entry and integrated business models (Marketline 2014).

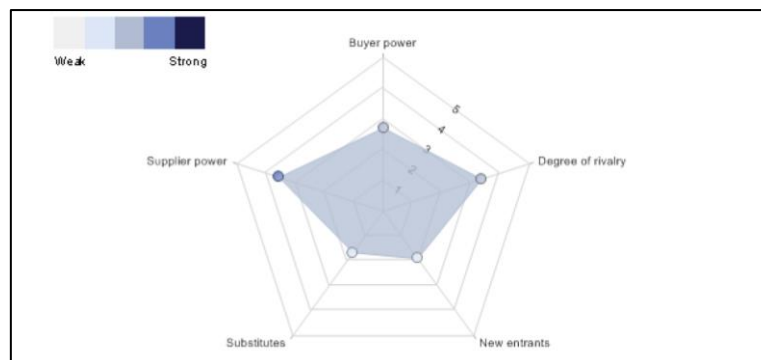


Figure 10: Forces driving competition in the global defense spending market, 2013 (Marketline 2014)

The global offset landscape is constantly evolving due to:

- Markets introducing new offset policies;
- Constant refinement of established policies;
- Changing & conflicting political expectations.

With the evolution of the landscape and added complexities to the policies, obligations are becoming increasingly difficult to fulfil for prime contractors (PwC 2010).

A balance between the flexibility of the policy, and the strength of the already established local industry base is said to achieve the highest impact for offset benefits.

Figure 11 illustrates long-term vision, combined with policy flexibility, will lead to efficient industrial cooperation for all parties.

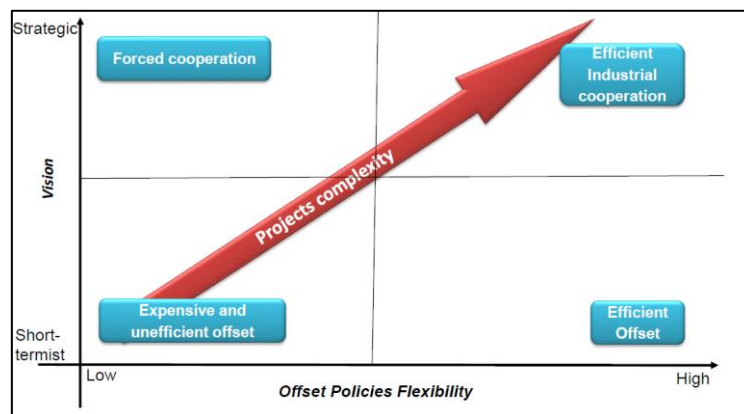


Figure 11: Offset/ Industrial Cooperation project complexity (MBDA 2015)

#### 4.1.3 Economic Development & Job Stimulation

Whilst offset requests are theoretically aligned with national economic development strategies, the case for job stimulation was found to be divided.

A study conducted by A.T. Kearney (2013) found that enforced offset programs are essential to tapping opportunities for the creation of a significant amount of advanced jobs.

Others argue the job creation case is decidedly questionable, stemming from high profile examples from several countries' negative experiences (Muravska et al 2010).



## 4.2 Trends & Challenges

### 4.2.1 Indirect Offsets

Indirect offset generally applies only for developing countries. In order to safeguard national security interests, indirect offset can be used to support critical infrastructure projects and is an area found to be requiring greater study. Scope for fulfilment is larger here, however, indirect offsets are said to be riskier and more complex than direct (Duthie & Bartusevicius 2015).

Integrating with Industrial strategies in other sectors of national importance opens up potentially limitless opportunities in areas including green energy, pharmaceuticals, infrastructure, health and education (A.T. Kearney 2013).

Figure 12 depicts the prevalent forms of reciprocal trading mechanism, under the broad countertrade framework. Offset can be further broken down into separate categories including defense and civil, and direct and indirect.

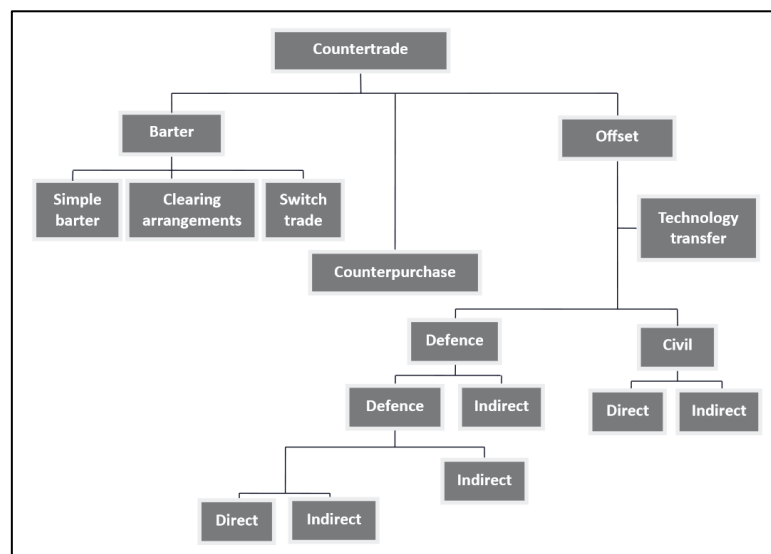


Figure 12: The Countertrade Paradigm (Matthews 2014)

In February, IHS Janes (2015) announced that Turkey was launching their new civil offset policy which applies to large procurement programmes being undertaken outside of the MoD, by five Ministries: Health; Transport; Maritime Affairs & Communications; Energy; and Natural Resources (Forrester 2015). Selected tenders from this August will include civil offset requirements in what CTO (2015) refer to as ‘an eccentric, convoluted, yet formal civil offset policy’. The success of this policy is therefore yet to be shown.

#### 4.2.2 Transfer of Technology (ToT)

ToT is now one of the core particulars that structure an offset vision. Customers are increasingly becoming more demanding. Whereas at the turn of the twenty-first century ToT was considered to be the exception (Petty outlined in 1999 it amounted to approximately one-quarter of all offset), it has now become the standard. ToT includes the transfer of highly developed technologies, skills, training, documentation and know-how.

Recent deals include Argentina MoD signing with Israel on 26 June 2015 for a tank upgrade programme which will include the establishment of joint ventures and ToT as part of the offset agreement (Guevara 2015).

Announced in June online by IHS Janes (2015), The Republic of Korea signed with American multinational corporation Boeing, with undisclosed offset terms understood to be at least 50% of the USD1.2 billion value in ToT (Jennings 2015).

ToT provides the opportunity to access new markets and formulate long-term relationships with the buying nation. To be efficient, companies need to change and adapt to the evolving environment. The expectation is for new and more demanding ToT associated with projects in future.

#### 4.2.3 Associated Risks

Corruption in defense is a very serious issue, constantly drawn attention to in the media and by many authors (Auriol 2006; Gupta et al 2001; Willett 2009). Faced with meeting offset obligations, the three main challenges identified from the secondary research for companies taking part in the ECCO Symposium in June 2015 included:

**Financial risk**, profitability, as all the elements required as part of an ongoing programme can lead to considerable over-costs.

**Reputational risk**, companies must protect their image, in particular prime contractors don't want to fail, and will do everything in their power to overcome difficulties to protect their name. This risk then links back to the previous, financial risk.

**Corruption risk**, such as bribery, which can be better managed with increased transparency. Any large business transactions can attract corruption, and offsets shouldn't – but are – often singled out.

Transparency International (2010), Muravska et al (2010), Furter & Bozas (2011), Walsh et al (2000) and a multitude of previous studies also bring light to political, personnel, operational and procurement risk factors.

In response, Figure 13 displays an offset screening checklist proposed by Furter & Bozas (2011) for offset managers to use when managing offset projects, to help minimise the associated risks.

**FURTER OFFSET SCREENING CHECKLIST©**

1. Have the risks been fully assessed before the RFQ is submitted? ☐
2. Has a clear ruling on the management of intellectual property of the defence contractor been obtained? ☐
3. Is there adequate knowledge of the offset process in the purchasing country? ☐
4. Have all stakeholders been made aware of the offset requirements and risks; what constitutes compliance; and what the implications of offset are? ☐
5. Is there adequate knowledge of, and contact with, industries in the purchasing country, as well as an understanding of their needs and capabilities? ☐
6. Has a detailed analysis of the offset costs and a budget to cover the expenditure been finalised? ☐
7. Have all related trade regulations been complied with? ☐
8. Has the best position with the offset authority been negotiated? ☐
9. Have pre-approvals/swaps for offset activities been secured where possible? ☐
10. Has the offset business plan been shared with all relevant departments and stakeholders, and have milestones been clearly communicated? ☐
11. Have legal agreements been signed with all sub-contractors and service providers, and are processes in place for close and strict monitoring of offset projects? ☐
12. Are there effective networks of experts, financiers and insurers? ☐

Figure 13: Furter Offset Screening checklist© (Furter & Bozas 2011)

## 4.3 Best Practice Offset Management

### 4.3.1 Working in Partnership

***“There is a real opportunity to set a new vision for our economy.”***

Sir Dyson, 2010

The Dyson “Ingenious Britain” report (2010) discusses the changing economic landscape (of the UK) and offers policy recommendations to correct the problems SMEs are currently experiencing. By incentivising prime contractors to invest in SMEs to share intellectual property, both parties can significantly benefit from collaboration.

The emergence of new high-technological innovations and industry sectors provide platforms for SME growth (Audretsch & Thurik 2001), and as outlined in 4.2.2, ToT is an area of huge demand. Currently prime contractors are found to have four ways of dealing with an SME to help fulfil offset obligations:

- No interaction;
- Procure/ contract the work from the SME;
- M&A (Buy the SME);
- I&L (Invest & License) - *Not M&A*.

Research by Stonecracker (2015) relates the first three options to what companies have been doing over the last 50 years, however the last option was singled out as new and said to have huge potential for growth. By licensing an SME to start the R&D process, at the end of the year the SME is said to be able to apply for the cashable 35-60% tax credits, and the prime contractor can reap the effects of the R&D with no M&A liabilities. Combining R&D tax credits was shown to dramatically improve EBITDA and balance sheet.

As outlined by the National Audit Office (2013), by working together abroad with prime contractors, SMEs can further advance their skills & capabilities. To facilitate such partnerships, governments can assist in three ways, by providing:

- Highly sort after market information.
- Introductions.
- Consultancy.

Experienced support from prime contractors can be educational for SMEs with no prior knowledge of offset, through workshop tours and demonstrations. The Defence Growth Partnership (DGP), announced in 2014 by the UK Prime Minister is a Government-to-Industry opportunity for UK businesses to help build upon each other's strengths. The success of this programme, and lessons for other Nations, are yet to be shown.

**“Having modern, technologically advanced and flexible Armed Forces to protect us and our interests is vital. Because of the difficult decisions we have taken to tackle the deficit we are able to make these vital investments in our defence capabilities. We are also taking action to sustain our thriving defence industry, as part of our long-term economic plan to back business, create jobs and secure a brighter future for hardworking people.”**

David Cameron, UK Prime Minister (2014)

SMEs are the next global battleground and the powerhouse of the economy (Rolet 2015). Success across all industries will depend on which large companies can make the right investment, at the right time, with the right SME's. Prime contractors can reverse the trend of limited organic growth by offering collaborative capital deployment, which also allows SME's to grow (Uphil 2015).

However, even SMEs can fulfil offset, as shown in Figure 14, made possible by having several different divisions. This can provide crucial turnover in new markets.

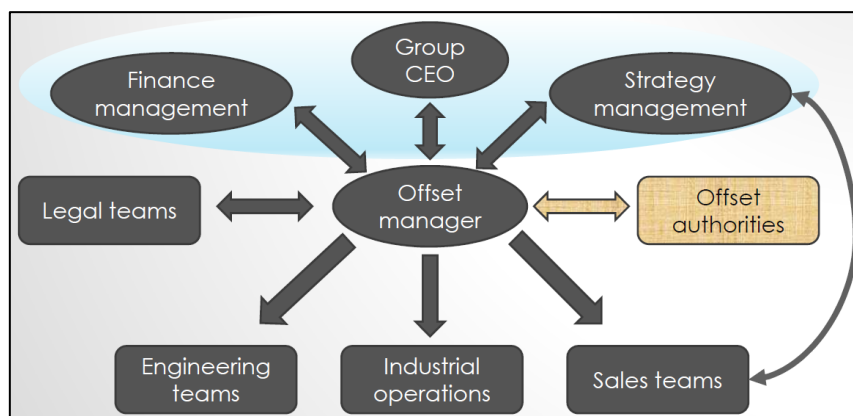


Figure 14: How to Deal with Offset Obligations as a mid-cap growing company (Etienne Lacroix 2015)

For prime contractors, working with SMEs adds a competitive supplier to value chain and reduces investment to set up local production, thereby diversifying sourcing risks whilst receiving the long term offset credits. This was found to assist in diminishing local competition, whilst maintaining control, and benefiting from the SMEs innovation. For the partnership to be successful, the SME must be able to deliver value, as large companies have reputation, brand and capital at stake. SME characteristics most sought after by larger companies are intellectual property, innovation and agility, therefore can leveraging off each other's strengths for mutual rewards.

Figures 15 illustrates the move away from tradition offset and buyer/ supplier relationships, to the more forward thinking collaborative interaction between partners, working closely with local industry where all must be seen as equals for industrial cooperation to be maximised.

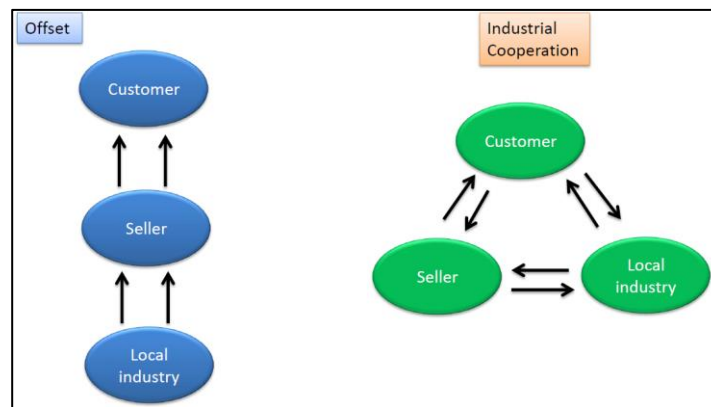


Figure 15: Before and After; Offset and Industrial Cooperation (MBDA 2015)

#### 4.3.2 SMART Offset

Realistic ambition of nations could be realised and offset policy across all sectors would benefit from a central coordination, possibly through the creation of a central policy body. Research conducted by KPMG in India in 2010 with various industry participants suggested the creation of a National Offset Policy Group. The need for transparency, integrity, and accountability across the globe are echoed.

Chinn et al (2015) pinpointed five issues that companies need to address to be successful in international markets:

1. **Value;** is there enough in the opportunity available?
2. **Meeting international requirements;** is the offer 'fit for purpose'?
3. **Delivering internationally;** is the organisation export ready?
4. **The people;** the team right and ready to operate in a new business environments?
5. **Addressing regulations;** how should offsets and other regulatory be approached?

For offset success, Avascent (2012) identified an additional three strategies for obligors:

1. **Implement business fundamentals;** Offsets must be part of the strategy and planning process. A portfolio approach is recommended.
2. **Deepen involvement;** This is an internal and external educational piece, elevating discussions with senior executive team, and broadening network or offset partners to execute.

3. **Communicate strategically;** For obligors it's about building up reputation and enhancing the brand through said activities. Talking about offsets and linking the connection between programs offered and benefits.

Marshall's (2013) identified a strategy must reconcile the conflicting interests of the four main stakeholders as shown in Figure 16, for successful offset to occur.

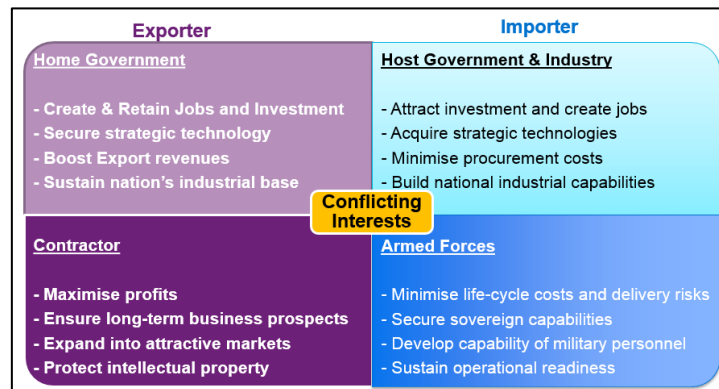


Figure 16: Conflicting interests of Offset stakeholders (Marshall 2013)

Research conducted by Price waterhouse Coopers in 2010 discovered management best practices should be applied to both the evaluation and deliver of offset programmes. Here, the multiple internal and external influences that contribute to stakeholder engagement cannot be overlooked. Successful offset can then be undertaken via thorough reporting, monitoring, and engagement of all parties.

## 4.4 Conclusion of Secondary Research Findings

***“Now is the time to rethink how offsets are constructed,  
communicated, and discharged.”***

Avascent

The secondary research was conducted to help answer three of the objectives. The first was to describe the effects of counter trade activities, specifically offset deals, on International trade. Fundamentally, offsets are about protectionism; creating economic activity in country. This form of collaborative economics creates a highly competitive environment, with bilateral barter deals evolving into the offset deals seen implemented across high value large procurements today.

Upon examining the trends and challenges of offset, it was shown that due to declining EU budgets, the defense market is moving away from the EU into alternative overseas markets. A journey of offset ‘obligations’, to participation, to Industrial assimilation is where the future of the industry. As globalisation across the defense and aerospace industries continue, offsets were found to be becoming an increasingly important strategic marketing tool for international growth (McKinsey&Co 2014).

Indirect offset and ToT were found to be spaces to watch, both not without associated risks. Financial, reputational, corruption, political, personnel, operational and procurement risk factors all need to be mitigated.

Trends point to the expectation for new and more demanding requests for ToT in future, and obligors need consider their approach and work into their strategies accordingly in order to maintain competitiveness.

The key issues that define offset success emphasised a range of points, with prime contractors and SMEs working together in collaboration being the biggest area of opportunity to further explore.



## CHAPTER 5: PRIMARY FINDINGS

### 5.0 Introduction

***“A customer is a customer, and as a vendor you need to answer the requirements of your customer.”***

Christian Sylvain, Associate Expert with the ESSEC Business School's European Center of Law and Economics,  
and Chairman, European Club for Countertrade & Offset

This research provides a comprehensive overview of countertrade techniques. It focuses on the most prevalent form, offsets, to reveal insights about the uses, pros and cons, and potential marketing benefits.

The primary data collection aims to answer the second objective, investigating which markets and sectors are using offset as a tool to facilitate commercial success in international trade and contribute to economic development. A full breakdown of the country analysis can be

The findings are based on themes found in the literature review and secondary analysis. Industry experts and offset practitioners were interviewed across a broad range of departments associated with international trade. Large prime contractors and SME's were interviewed, to ascertain the stances and issues involved for companies at different development stages, to provide an adequate base to answer the third objective regarding trends, challenges, and marketing opportunities.

Finally, evidence collected from both the secondary research and primary data were applied to answer the fourth research objective, to determine the key issues that define offset success and if these issues in practice, work as intended.

### 5.1 Traditional & Radical Market Entry Strategies

***“Localising some activity, using the catalyst of offset as a platform, can often if done in the right way allow companies to augment their capabilities whilst at the same position themselves strategically for future opportunities.”***

David McIlvenna, Senior VP Industrial Participation, Rolls Royce

For companies attempting to gain entry into new and protected markets, countertrade techniques can be a useful tool to help facilitate the deal. Also, when faced with weak currencies and highly competitive markets, countertrade can be used to offer something additional over the usual terms and conditions, providing a competitive edge. A combination of mergers & acquisitions (M&A), joint ventures, subcontracting, and technology transfer through the form of fulfilling offset obligations were declared typical practices amongst the interview panel.

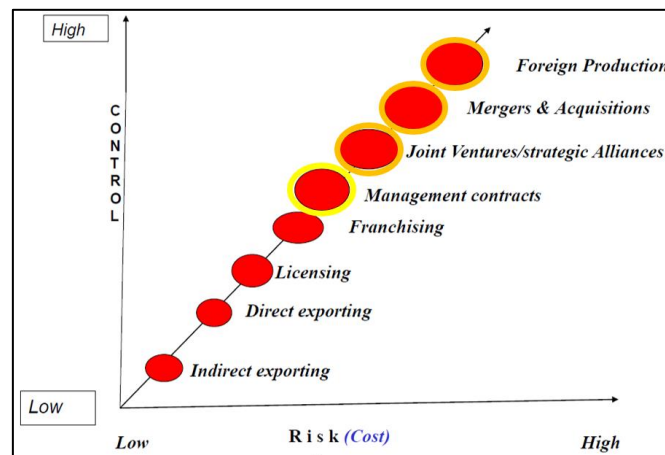


Figure 17: Foreign Market Entry Strategies (Adapted from Bradley Frank 2005)

### 5.1.1 Bilateral Barter

***“Ineffective, wasteful, and unlikely to succeed.”***

Lindsey Shanson, Editor, Countertrade & Offset

Known as ‘traditional countertrade’ in practice, bilateral barter has evolved over millennia and although editor Lindsay Shanson of industry publication CTO acknowledges they aren't completely dead and buried, today deals are few and far between with little evidence across the industry of actual fulfilment. Business transactions today use currency in most or part, as cash is more efficient and most desired. When there is a shortage of foreign exchange reserves, bilateral barter has been an option in the past for importing countries, and a viable vehicle to facilitate trade and investment where it otherwise would not happen. In more recent times, these practices and policies have become more sophisticated to see most businesses get far more involved in offset.

These exceptions include countries with informal international embargoes, such as the current situation in Iran and Russia; these deals are generated from political events. Thailand is also currently turning to China and Russia, offering rice and rubber for weapons. Intermediaries/ brokers offload the countertraded items and such roles are seen invaluable to assist with the contracts and facilitate such deals, as a commercial necessity.

***“Controversial. Difficult. And mostly misunderstood!”***

Pervaiz Nasir, CORE Management Consultants

Most interviewees cited that they had not undertaken what is known as traditional countertrade for many years. For the large suppliers, it no longer forms part of their proactive strategies. Only certain

countries used to demand it, including Thailand & Malaysia. At that time, 'countertrading' palm oil was seen as a way to keep the economy up and market suitably supplied.

The primary findings focus on offset, the evolution of barter, for large procurements.

### 5.1.2 Offset (Industrial Participation)

***"If you don't engage in offset, you're out of the game."***

Simon Edge, Head of Industrial Participation, Agusta Westland

In almost all cases, outward export in the defense and aerospace arena requires the implementation of mandatory offset obligations for prime contractors. This is because the ability to create commercial deals is strongly restricted by geo political factors. Offset is seen as viable over other forms of market entry when mandatory, which is most often the case, and allows business to happen and deals to be won. Reciprocal benefits of some form or other are the typical nature of global trade. For small scale investments discussed these are not as evident, but in most large scale procurement and infrastructure investments there are most certainly, in the form of offset.

Offsets facilitates to channel investment into 'strategic sectors of the economy'. Activities need to link back to an industrial strategy, based on the buying country. Large scale procurements in defense, aviation, and aerospace (plus some examples of power, utilities, infrastructure etc) will all demand back investment in activities such as training, job creation, and other areas of economic development.

The vast majority of exporters in the western world do not want to engage in offset; respondents concur it is often risky, overly time consuming and complex. Upon further discussing constraints, it was found that offset limits choice of supplier, it can negatively impact on profit, reputation, and sales elsewhere if it does not work as intended. However according to the expert panel, depending on the market, offset is said to be a viable option for technologically advanced industries.

As found in the secondary research, across Europe governments have attempted to legislate offset, however this directive was discussed amongst consistently as having achieved the opposite intended results; actively forcing the activity underground, with a loss of transparency in the process.

Seemingly the move was to align with the WTO anti-offset stance, which is that offsets distort free trade. In reality, practitioners agree any nation given opportunity to deliver economic benefits, will proceed despite what the European Union want it to do; If companies don't offer an offset package, partner agreement or structured finance of some form they will not be able to deliver the added, desired benefit – and simply will not win the business.

One of the ‘Big 3’ prime contractors in the UK confirmed they are reluctant to invest in environmental projects, despite the potential for mutual benefit. Therefore they will look to find the finance outside the company; co-financing with partners was found to be another creative option, without the associated implications and responsibilities.

#### 5.1.2.1 Participation Across the Industry

***“Offset is just part and parcel of the modern world trying to do business together.”***

Brinley Salzmann, Director - Overseas & Exports, ADS Group Ltd (National Trade Association)

Many definitions of offset deals are specific to individual countries. And with evolving policies, the definitions vary dramatically from nation to nation and over time—some include traditional countertrade, but each country has its own goals and requirements. This was found to cause widespread confusion and ambiguity. US and Europe-based defense companies with saturated home markets divulged they must boost international sales through countries typically located in troubled parts of the world, where defense needs are rising.

Prime contractor strategies are driven by product, and in the aerospace and defense industries, these products are sophisticated and expensive. The research findings indicate there is a strong need to constantly evolve a strategy that has the product at its core to enable the buying country the long term capability to support it.

Interviewees were found to be involved in both direct and indirect, but predominantly direct offset. A trend towards more civil offset is being seen amongst many of the experts working in the field. Practitioners divulged that what is preventing many countries from embracing civil offsets is the onus to WTO & GATT.

Some respondents of large defense companies acknowledged that whilst they do implement offset programmes, they try to avoid them as much as possible. This was said to be because so much of the deal is at the peril of negotiation forces.

#### 5.1.2.2 Current Global Situation

***“In the 1970’s there were less than 10 countries requiring Offset as part of their defense procurement, whereas today it is almost universally applied with new Offset policies developing and existing policies constantly evolving, including potential increases in the civil sector.”***

Tom Gargett, Head of Commercial Export & Industrial Participation, Marshall Aerospace and Defense Group

*Countertrade & Offset* (CTO) is an online and print subscription service which publishes industry intelligence, and is arguably the most accurate and up-to-date source of insight across the industry. Lindsey Shanson, Editor of CTO confirms approximately 80 countries currently have some form of stance, rules, or regulations on offset. Of those, about 32 countries have formal offset policies in place.

Global defense, aerospace and infrastructure companies including those in nuclear, electricity and water are involved. Nations justify large investments to these countries (such as defense purchases) to their citizens by demanding specific added value in exchange, to spur domestic economic growth. Across the international defense and aerospace markets, offset agreements are most commonly implemented, although names and requirements of policies vary considerably.

Whilst offset is now limited in Europe, Saudi Arabia and the UAE have become the biggest defense offset countries for European suppliers and the start-up nations are seen as the future of offset, namely Brazil, Turkey, Korea.

The panel reference other countries such as Malaysia, South Africa and Pakistan, raising questions regarding if offset really ‘works’ as intended. These countries are cited as not being able to have their obligations fulfilled. This is said to be due to not having the advanced manufacture base to absorb. Absorptive Technological Capability (ATC) comprises of what nations are trying to promote. If they don’t have ATC, there will a disadvantage to moving it forward.

The qualitative interview findings revealed some information uncovered from the secondary research to be incorrect or misleading, with published articles which received significant media attention perceived to be reporting on grossly incorrect global figures and estimates. This data is difficult to ascertain either way.

The directive of 2009 means countries in Europe cannot request offsets anymore unless they can prove essential securities are at stake. Despite this, interviewees anonymously divulged all this directive has done is rename the activity that is already taking place (to no longer label the practice as offset), remove it from view, or attempt to claim National Security interests.

For European suppliers, due to declining budgets, there is more of an emphasis on increasing exports. Some are responding by selling their design expertise and technology transfer. It was found that many other contractors are only willing to offer outdated technology transfer, and are guarding their most sophisticated intellectual property. For observers, this is said to be working against their idealised plans and will not be in their favour in future. Consultants assert that partners do not want

yesterday's advancements – however, it was counter argued that concerns were justified, and due different levels of requirements across nations and industries, this approach was viable.

Most challenges today were found to be experienced in India, UAE, and Turkey, as far as complying with rules. Offset practitioners are reporting evolving practices whereby guidelines are constantly being revised and updated based on what is thought to be industry best practice. They are finding this approach to be limiting, inflexible, and difficult to understand.

#### *5.1.2.3 Distortion of Free Trade*

***“Offsets is an antithesis to the fundamental principles of free trade.”***

Dr. Kogila Balakrishnan, Principal Fellow, University of Warwick

Principles predominantly discussed centred on capitalism, free trade and creating a more open and competitive economy. Offsets however are perceived as an antithesis to that, and protect countries in different parts of the world.

The panel had a shared understanding that it would not be probable for the EU anti offset policy to be reconsidered, as it's fundamentally about the strived-for, single-market approach. Whilst the secondary research pointed to offsets adding cost into the process and without it, a better value for money is conceivably expected, practitioners didn't all agree.

An interviewee from one of the large defense contractors recently approached the International Monetary Fund (IMF) to propose the idea of IMF representing the umbrella of many defense contractors; this presumably would allow offset to be correctly implemented with an official stance and the aim of reducing exploitation of deals and the instances of bribes. Whilst this solution was not approved, respondents reported on industry buzz supporting the desire for one of the super national institutions who could help conduct the global offset programme.

#### *5.1.2.4 Global Regulations/ Harmonisation*

***“There's a lot of inefficiency and waste that's created by trade restrictions.***

***International trade has become over regulated.***

***We would all be better served if governments committed to simpler,  
more transparent and consistent regulatory structures.”***

John Kjorstad, Global Services' Infrastructure Leader, KPMG

The research found that global regulations for a 'level playing field' have been proposed in the past for a common model to implement consistency. However, interviewees acknowledged that as every

government has its own priorities, creating a standard model on specific size multipliers and other conditions, is unrealistic.

The European Union has attempted a form of harmonisation by forbidding member states to require offset. Practitioners feel that through this initiative, international companies lose out two-fold: They cannot receive or therefore benefit from offset, and yet they still must offer when selling abroad. The research found this cycle can be a huge drain on the industry.

Practitioners further argued that correctly managed offset does facilitate free trade, as the trade wouldn't exist at all if there were not some economic benefit back to the purchasing nation.

This Euro-lateral approach worries European practitioners. Known within the industry as the “War on Offsets”, the consensus from the panel was that the directive should be global, or not at all.

Across the industry, self-regulation is encouraged. Although some structure was found to be needed, state standardisation and control is apparently not the solution and experts warn the outcome could prove to be very detrimental to the economy. Many interviewees were of the opinion that sovereign countries should be independent to make their own decision on these matters.

Practitioners concur that by overturning the directive, the market would in fact become more open and transparent, which is what it seeks out to achieve. One industry expert advised on the development of a new World Bank think-tank on offset, which outcomes are likely to cause a further stir across the market.

## 5.2 International Marketing Opportunities

***“Offset is now a critical success factor in the buyer decision making process;  
and key to winning future business for suppliers.”***

Simon Edge, Head of Industrial Participation, Agusta Westland

Since the “Buy American” Act of 1933, countries have exploited weapons sales to help boost their economies. Often regarded as sweeteners that can be added to large proposals, offsets help Governments convince their nations that activities are worthwhile from a political point of view, when making large procurements. Practitioners described this practice as “PR” from the government to justify spend and added return, and thus firms can utilise this notion, to their advantage.

An offset proposal can be seen as a marketing tool that differentiates suppliers from their competitors, and is seen as a crucial part of winning business. Regarded amongst the industry as a key differentiator, in some circumstances, offset proposals are said to be considered prior to the

technical proposal, clearly demonstrating the competitive advantage companies that are utilising it in the best possible way can obtain.

Advocates of offset view upskilling of local populations as allowing for supply chain growth and future onward sales, building an indigenous capability that was previously non-existent. The research found this is becoming more advanced with certain countries and customers.

The marketing challenge identified includes positioning offset as a positive balancer. Just as the negative case studies highlighted within the media can cast negative connotations, companies having a positive impact and commercial success with programmes can increase the non-commercial value of their brands.

For some practitioners, there was found to be a reluctance to embrace opportunities from across other departments within the business, whereby an internal piece around communication and mutual understanding needs to be implemented.

#### 5.2.1 Awareness & Transparency

***“Offset management has to be included in the strategic development plan of the Group.”***

Nicolas Boeuf, Deputy Director International Business & Offsets Manager, Etienne Lacroix

Outside of the close-knit global community of offset practitioners, there is a lack of awareness around what offset is, and what the implications are. Even within large defense companies interviewed, internal stakeholders all have varying degrees of understanding and priorities. Top management do not want to transfer the company’s valuable technology; similarly, finance teams do not want to pay penalties for not complying with obligations, which would reduce net income. Sales professionals very much want a solution to be found that complies with local rules and regulations, but will not impact on their bonuses. All stakeholders do agree, that to grow they need to continue exporting, and that a greater awareness of offset management best practice is required, included within strategic development plans of the Group.

From an external perspective, UK companies fear they are being held back due to the lack of information on the government’s trade and investment projects overseas, that they could get involved in. Practitioners value this intelligence as priceless, and argue if shared appropriately – suggestions included that of a centralised database – would be invaluable to companies. ADS Group, the UK trade association representing over 900 SME’s believe this initiative to be of utmost importance for offset practitioners to fulfil obligations with less damage to indigenous economy and



help to identify local partners. It is possible that implementation of this joined up approach could allow for government and industry to work more effectively together.

Offset objectors see the practice as incredibly inefficient; one practitioner stated that although it can be used for economic development in certain countries, they don't see offset so much of an untapped marketing opportunity, but as a very unproductive process. Only through flexible obligations combined with innovative and enlightened officials implementing, can economic and commercial benefits be achieved.

### 5.2.2 Stance & Perceptions

***“Offset is not going to go away.”***

Cary F. Viktor, Director Industrial Participation, Lockheed Martin Corporation and Chairman,  
Global Offset and Countertrade Association

Stance and perceptions vary across the industry, however regardless of viewpoint, everyone understands it's a mandatory requirement.

Generally speaking, prime contractors, the suppliers of defense equipment and technology, are not enthusiastic about offering offset benefits but concede that in order to remain competitive they must. More innovative players who relish the opportunity, do agree programmes are difficult and highly expensive to administer.

Across the industry, offset is recognised as becoming more and more part of the “competitive discriminator” and companies succeeding in this space recommend those that are not, need to change their corporate philosophy in order to fully recognise the marketing opportunity.

Practitioners are noticing an increase in internal reporting requirements in recent times, with offset becoming more scrutinised due to deals becoming more substantial and associated with higher risk. Boards are increasingly becoming aware of the reputational effect potential deals can have on the company.

#### 5.2.2.1 A “Necessary Evil”

***“... if you sell locally, deals can be complex.***

***If you sell to overseas markets requiring offset, even more complex...***

***selling in defense sometimes becomes a nightmare.”***

Anonymous, Offset Business Community, France

Across the industry, whilst the stance does vary, some experts see offset as a ‘necessary evil’ of defense procurements. This line of thinking is due to the fact that offset obligations are not up to

the seller to decide what they wish to offer. Some defense contractors therefore avoid offset as much as possible; the consensus with this group is that regardless of what a nation labels it, there will always be a demand for investors and this is seen as a grey area of potential corruption to be avoided. Perceptions wise, these companies are hesitant to be seen as not wanting to participate in offset, so therefore will reactively utilise within their strategies rather than proactively market their capabilities.

***“Offsets have a bad reputation because they are  
said to be camouflaging corrupt deals...”***

Lindsey Shanson, Editor, Countertrade & Offset

Ultimately nations want to build up industry, and this is achieved through obligations that include help with support and maintenance. This is where the prime contractor expertise lie, in the facilitation of obligations that fall within their expertise; not necessarily at contract point when economic development plans are under review. From a trading company point of view, the number one reason offset is still prevalent in defense today is due to the different dynamics at play. As identified in the secondary research, politics are acknowledged as being heavily involved when the justification of spend is required. When sales prices are quite fixed, contractors are able to transfer value without receiving political woe, through offset. This becomes the valuable tool negotiated and can turn out to be self-fulfilling.

Some practitioners believe the creation of future competitors is taking place to satisfy offset obligations, with the increasing acceleration of economic development across the start-up nations. The practitioners that do not agree with this stance advise that for companies that are unwilling to work in partnership and explore collaborative localisation approaches, this is a justified fear.

#### *5.2.2.2 A Business Winning Opportunity*

***“Some companies continue to look, respond to and treat offset and  
Industrial Partnership as a necessary evil/ obligation.***

***Those companies are missing the boat and have their heads in the sand.”***

Dov Hyman, President, Dolin International Trade & Capital LLC

Forward thinking practitioners tend to view offset as an opportunity, and tool to aid a sale. For this group, a shared enthusiasm for successful implementation is acknowledged as dependent on how they are structured. One market leader explained they take a pro-active approach on defense offsets and a re-active approach on traditional countertrade activities (barter/ counter-purchase).

Companies that do not take this approach, were recommended by the aforementioned group that they would all be better served if they changed their perspectives, deleted the word ‘Obligation’, and focused on how to best create and implement mutually rewarding opportunities through Industrial Partnerships.

Regardless of stance, all unanimously agree that offset is a reality, a natural economic activity between countries. Discussions from across the industry reaffirm that offset is becoming more demanding, both in magnitude and quality requirements. The result makes it very difficult for companies to compete. One middle sized contractor was noted off the record as saying, if it they are awarded any more contractors, the business will not have anything left to fulfil the required offset obligations. This comment addressed the need for offset to be planned and delivered in a controlled way.

### 5.2.3 Overcoming Challenges

***“This is not a black and white issue.”***

Ko van Amerongen, Owner, defKon Solutions

Offsets allows for significant growth for countries in specific areas and sectors that are identified and outlined by governments. Over time and multiple deals, whole new industries can be built off the back of offsets, for example the competitive technology sector across advanced economies. Experts suggest offset might have been the trigger for the setup of world class engineering universities in Singapore. This example has potential to see graduates costing significantly less than graduates from the Western world in future. Whilst this will be beneficial to local markets and prime contractors operating in the space, it could potentially mean job losses across the UK and EU.

Risk management was cited in the research as one of the most important factors of overcoming offset challenges by suppliers. Risks were found to depend on circumstance and required to be weighed on a case-by-case basis, depending on project, size, and type of activity.

Various risks were cited, amongst them including: how much additional cost to include when initially pulling together the proposal; ability to find and outline appropriate delivery partners and their trustworthiness; capability of the recipient country in receiving the technology and ability of absorbing the proposed work. There is also a variance in the risks associated between the large tier 1 companies, and the smaller parties. Prime contractors are most concerned about reputational damage and the flow-on effect to the company directors and shareholders. SME’s on the other hand, are concerned about the potential for complete collapse of their businesses.

Prime contractors and SME's alike agreed that robust government policies, managed effectively, allow for companies to be driven to the correct behaviours and appropriate projects that are successful with the right people, under the right conditions. Corporate responsibility committees across large prime contractors will look at the risk reputation that are linked to programmes; Offset management expertise will look to balance this risk and to ensure the contract is profitable, although this level of internal support was not necessarily at hand for SME's.

#### *5.2.3.1 Benefits Vs. Risks*

***“In addition to commercial success, it is truly rewarding to see programmes implemented and the significant benefits countries can receive.”***

Cary F. Viktor, Director Industrial Participation, Lockheed Martin Corporation,  
and Chairman, Global Offset & Countertrade Association

For some companies, offset is influenced heavily by their legal teams, halting involvement in more opportunities due to perceived risk and lack of certainty. Other companies that have less stringent legal teams can, will, and do undertake at a higher level. The businesses that are not getting involved with offset, are found to be either losing business, or not implementing their offset plans.

Regardless of the risks, all agree there is often no choice but to engage. Therefore, the true question posed is how to manage down the risk. If the risks/ costs can be recovered through adding a premium on the sale price, this is seen to be good for the supplier, however this is not always possible. What is said to be needed is identification of the nature of the risk, and clear and concise best practice procedures to follow, e.g. Protection of brand, if recipient country firms seek access into vendors global supply chain.

Through the recently established 'Defense Growth Partnership', the UK are attempting to manage offset as an opportunity and not a burden, with the Government and defense Industry working in partnership to allow for the trading of offset obligations to maximise future exports.

Consultants in the field recommend if companies can anticipate that offset may be required in advance, it can allow for collaborative working strategies to be put into place, to facilitate positive support and future proof business.

#### *5.2.3.2 Creation of Partnerships*

***“Countries want to be seen as partners, not just customers. They don't want simply to buy your product; they want to buy the product you designed, but have it manufactured in their country!”***

Brinley Salzmann, Director - Overseas & Exports, ADS Group Ltd (National Trade Association)

The research found that doing business ‘in’ a country is an outdated approach; in the modern day, countries want to work ‘with’ each other in partnership. Offset is moving away from putting work into factories, with a trend towards direct investment. Successful companies will enter the market, establish a footprint, and offer long-term partnership solutions.

Practitioners confirm that as offset is tied to the export sale, if the primary product is excellent and leads to more sales, then demands for offset increase. Importantly, this is seen to lead to those long-term business partnerships.

By proactively identifying and creating strategic partnerships (i.e. manufactures) and thereby securing additional support from industry, respective desires can be met and go a long way forward toward winning contracts. A solid offset plan is said to reconcile the conflicting interests of all stakeholders; allowing for the creation of jobs, and, reliable sources of suppliers.

Experienced prime contracts understand how to do undertake the activity, and promote the idea that offsets breed long-term relationships. Long-term relationships with customers mean repeat business, and strong mutually beneficial partnerships can be formed.

Experts indicated there are still large companies in the aerospace business that are very primitive in their thinking, which will work against them as the powers shift globally over the next few decades, and it will be important for western companies to have built up these partnerships in advance.

#### *5.2.3.3 Circumstances to Avoid*

***“Absolutely must avoid bribery;  
those are the ones you simply need to walk away from.”***

Jon Barney, Managing Director, Avascent

The research confirmed that in a scenario where everything within a market environment is working perfectly well, and seller and buyer have equal intentions of not requiring offsets, then there is no need to undertake it.

However, it was found that just about every country requires it. Corruption in any business dealings is possible, and in the defense market, offset has been seen as one of the potential vehicles. Practitioners are mindful to avoid risk and bribery, with deals assessed on a case-by-case basis.

Practitioners disclose the importance of avoiding offset if the deal doesn’t make any commercial sense. For some smaller companies, satisfying an offset obligation can particularly be an issue, due

to their restricted product portfolios. Large practitioners can usually find an angle to satisfy offset, and brokers can assist in putting together a deal that makes most commercial sense.

Offset by definition, adds more work, complexity, and risk. Short-term solutions that are deemed to satisfy ill thought out National agendas will not benefit either partner. Generally it was found that the more complex a project is, the more challenging yet rewarding it can.

Interviewees acknowledge there have been high profile instances in the past, where avenues for corruption have been masqueraded under offsets. Industry experts feel there is a strong current need to change negative perceptions through education and best practice to lead to a greater understanding. In defense, the accusations of corruption are openly spoken about and defended – those working in the industry state singling out offsets is incorrect – it can take place anywhere in procurement processes.

Very strict compliance measures are required in order to overcome perceived boundaries: most of the larger prime contractors divulged their processes have had to become very rigid in order to mitigate risk. When working with new partners, it is essential to go through due diligence, and reputation must be considered at all times. Contradictorily it was advised that flexibility is absolutely essential.

#### 5.2.4 Future Trends & Forecasts

***“Knowledge sharing and co-development of R&D is the future of the offset industry where the best long term and economically sustainable results will be harvested.”***

Dov Hyman, President, Dolin International Trade & Capital LLC

The expert panel concur on the current key markets for offset. In the Middle East the biggest demand was found to be primarily coming from Saudi Arabia and the UAE, where contractors are seeing the highest volumes for defense procurement. An evolution in Asia, or a ‘heightening’, is also being seen in Korea and Taiwan.

Migration towards Startup Nations including India and China, with knowledge transfer and the evolving nature of the civil sector and extractive industries were found to be hot topics of conversation. Practitioners predict Cyber as the next ‘Big Thing’ for offset, due to the way modern societies are suspended from all sorts of IT networks that are by definition vulnerable.

#### 5.2.4.1 Defense to Civil Programmes & Indirect Offset

***“Offsets can be a competitive advantage when considered  
as part of an overall proposal to a customer.”***

Ian A. Lane, VP - Industrial Cooperation & Market and Competitor Analysis, BAE Systems

Practitioners who attended the Global Offset & Countertrade Association (GOCA) conference in Napa, California during May 2015 shared on the challenges currently shared across the industry posed by Cyber security as an offset solution, and on the growth of global civil offset obligations.

The research found that as the vast majority of offset is currently conducted in the aerospace/defense arena, there is still a portion undertaken in other civil sectors that were identified by the group as able to be further developed. This includes the transfer of technology, and knowledge transfer, infrastructure projects including utilities, water sanitation, telecoms, information and communications technology, solar power.

Civil offset programmes offer limitless opportunities, but run counter to the WTO regulations. Member countries that are currently ignoring these guidelines are thought to eventually be reprimanded by the WTO, although this is yet to be shown. Non-member countries, or those of ‘observer’ status, are said to be implementing more civil offsets programmes, including; Turkey, Saudi Arabia, Kuwait, Malaysia, Israel.

In terms of meeting civil offset obligations, there seems to be issues arising from some of the powerplant and railroad projects currently awarded to large Japanese and Korean companies. Once the bids are awarded, there is said to be a lack of knowledge and understanding in regards to how to implement and satisfy the offset obligations. Currently these companies were found to be paying large fines/ penalties for being delinquent.

In addition, some countries are finding it difficult to getting a civil programme up and running in the first instance. Some have just 1 policy, that serves both civil and defense. Other countries have different policies. Companies with a clear strategy and applied understanding of updated policies, can position themselves accordingly here. In the highly competitive defense industry where prime contractors are needing to diversify into civil markets, marketing activity is becoming ever more vital.

Some businesses, such as the Swedish defense company Saab, actively promote Industrial Participation in their marketing communications. IP in this instance is promoted as an asset on their website. The research found many of the Fortune 500 Aerospace and Defense companies are becoming more actively involved in digital marketing which is a movement towards increasing

awareness amongst stakeholders. This movement, could potentially help position offset and the economic benefits it achieves, to the masses for endorsement and increasing understanding levels.

***“Indirect offsets are like kissing frogs;  
sometimes they stay a frog, but sometimes they turn into a Princess!  
There is always a degree of risk,  
but the benefits can be very rewarding for all parties.”***

Simon Edge, Head of Industrial Participation, Agusta Westland

Indirect offset allows for the stimulation of economic growth within the vendor country more generally. Indirect offsets are not against policies for developing countries. The research found Turkey have recently been implementing civil offset policies, able to get around GATT as they have an ‘observer status’. However, industry experts advise their public procurement law on the matter contains many discrepancies and is flawed.

From an SME point of view, they believe obligors should become more creative and use civil SME’s to make use of their obligations. Many countries are said to have more civil than defense needs, requirements to facilitate National security through better infrastructure, waste systems, healthcare and housing therefore lessens the need for weapons and defense.

Specifically discussing Iran, the research found this country will need defense systems in future, along with water cleaning, healthcare, infrastructure, technology and more. The opportunity to supply defense systems, and offer a civil solution to advance the country is huge, as the SME solutions are said to already there.

#### *5.2.4.2 ToT & Knowledge Transfer*

***“We are repeatedly seeing that nations don’t simply want yesterday’s technology transfer, but instead they are embracing programs that will deliver knowledge and training in their countries and to their people to create sustainable and commercially viable enterprise.”***

Dov Hyman, President, Dolin International Trade & Capital LLC

The offset community is observing Nations, obligors and universities partnering together to leverage off one another and to enrich their respective operations. The research found these nations are exploring, embracing and implementing knowledge programs that are creating shared R&D, technology incubation and commercialization programs. Experts advised that through knowledge sharing, and by improving the human capabilities in a nation, and by creating legions of smart



indigenous people, one significantly increases the chances that the country will enjoy sustainable economic benefits for generations to come.

The research undertaken confirmed the fundamental points from the secondary research; every country wants to maximise economic benefit from its trade activities. Knowledge transfer, which is seen as the most important growing development in the industry along with the development of human capability stems from the desire to be self-sufficient. In some circumstances outdated technology transfer will not be suitable to meet a country's needs, so knowledge transfer can therefore enable the ability to leap frog on one's own technology base.

#### *5.2.4.3 Extractive Industries*

***“Africa has the most fertile earth on the planet!  
The problem is 70% of crops rot in field before making it to market,  
due to the lack of infrastructure. What is preventing implementation of successful  
offset programmes, is the tragedy of the ongoing corruption in those countries.”***

Industry Expert, Offset Business Community, USA

Industry experts referenced the opportunities in Africa over the coming years for offset programmes; not in defense but in the extractive industries, natural resources including gold, oil, minerals, and agricultural commodities. Opportunities for businesses in the healthcare, technology, water and agricultural systems through offset will be prevalent, and developing industry as a condition presented to doing business in the nation will be a requirement.

The research identified there is a huge untapped marketing opportunity for offset here, however, currently often dealt with as an afterthought. By reversing this process, G2G collaborations could harness the power of their respective industries to complement each other's strengths and weaknesses.

Nevertheless, the rules and regulations are becoming increasingly challenging and interviewees concur the more countries that are updating their rules based on 'best practice' from others, are making obligations very difficult to meet. For the true potential of the opportunities to be met, a global standard that recognises individual needs, is enthusiastically supported but cynically not expected to ever come into fruition.

### 5.3 Recipe for Success

***“Finding something that makes sense to both parties from a business point of view,  
not just for the delivery of an offset obligation,  
significantly increases the success and sustainability of a project.”***

David McIlvenna, Senior VP Industrial Participation, Rolls Royce

To facilitate future sales, interviewees revealed the requirements of successful offset, collated as follows:

- i. Be pro-active & recognise the opportunity early
- ii. Analyse the competition, and the customers strategic offset environment – Political, Economic, Social, Technological, Industrial and Military
- iii. Be realistic about the costs, risks and recovery
- iv. Understand the Offset rules, regulations and application
- v. Develop potential solutions and understand absorption capability
- vi. Engage the customers offset authorities and associated stakeholders
- vii. Check if offset can be mitigated, reduced or shaped
- viii. Identify the stakeholder “Hot Buttons”
- ix. For Indirect opportunities, a thorough understanding of other institutions and agencies e.g. Academia, R&D, non-defense business categories e.g. Bio-medical
- x. Develop, document and cost an offset plan for both the bid and execution phase and include costs and discriminators within the bid proposal
- xi. Utilise all aspects of the business, supply chain and business partnerships
- xii. Tenacity is required, as offset projects have a high attrition rate
- xiii. Talk to the offset practitioners

***“The approach here is to flip the model  
and see these as opportunities for strategic and national interest.”***

Tariq Farwana, President, StrateSphere

The first two steps of creating new market partnerships were shared as:

**Bank any performance undertaken** to use in future when offset banking is required. Obligations incurred can be asked for later, during times of austerity.

**Get the company up-to-speed and functioning** in the meantime. New suppliers take time to set up, undergo testing and get up to standard. This can take one to two years. Therefore commencing to work in partnership prior to a contract going through allows companies to avoid wasting performance time.

### 5.3.1 The Power of SME's

***“Most SME's are a bit daunted by the prospect of participating in offset; they could however in certain markets be missing out on a business development opportunity. For example it may be possible to access the support and resources of larger companies in countries where what the SME has to offer is a good fit for the satisfaction of in country obligations or aspirations the larger company may have.”***

David McIlvenna, Senior VP Industrial Participation, Rolls Royce

The research found that SME's operating in the world's export markets require both government and industry support. The major players operating in the space advise that many of these firms have never heard of offset, and have no idea how to respond. Indirect offset is said to offer lots of opportunity for mutual benefit, focusing on intellectual rather than capital transfer and that SME's with technology as their core are viewed as prime candidates.

For the prime contractors, working with SME's was found to help facilitate growth. In the past, it was said that SME's were never a pre-requisite. Nowadays, acquisition was found to not be the answer, as companies then just become absorbed and part of the whole, and growth rate slow down.

***“Growing non-EU defense spending policies and growing obligations require out of the box cooperation; EU SME's form part of that collaborative solution.”***

Rutger Deurvorst, MD, Axxiflex

Cooperating with SME's enables offset obligors to exchange some of their resources in projects with innovative SME solutions, and leverage off each other's strengths and weaknesses to fulfil the obligation. The agility of SME's matched with the resources of a prime contractor can come together as proposed in Figure 18.

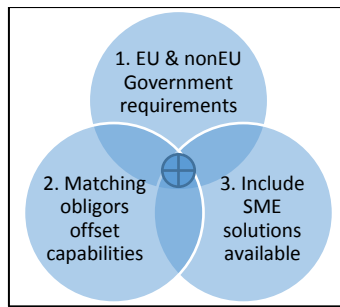


Figure 18: Proposed model of collaboration (Axxiflex presentation, ECCO 2015)

Prime contractors reveal that by leveraging off the strengths of their bigger global companies, SMEs can assist to further develop the channels of distribution, and in return of coming under the umbrella enjoy the marketing benefits they otherwise could not budget for alone. The research found that prime contractor and SME collaborations, as a vehicle to deliver offset obligations in this way, can be mutually beneficial for all parties. Successful examples of SMEs who have benefited from the offset experiences and have gone onto become successful organisations in their own right, including CTRM in Malaysia.

It was acknowledged amongst prime contractors that for SMEs, undertaking offset activities can be quite difficult. SME's capabilities are important, and they need to match certain activities of their obligors. In order to do so, the SME has to market his capabilities to obligors, although it was noted that marketing themselves as a regular supplier can be a problem if Prime contractors see them as a potential competitor.

For some prime contractors based in the UK, getting SME's involved and helping them to develop with a focus on offset is thought to be impractical in some cases. For an SME to be an effective supplier, as a minimum they need to check the following boxes: English speaking with bilingual skills to facilitate discussions with other subsidiaries; Ability to apply for and produce the correct documentation; capable to conduct regular trips abroad.

From an SME point of view, intelligence is key for their success, unanimously referencing the perceived problem of information sharing. Amongst SME's there is an underlying issue that obligors won't communicate the information they need, which is holding them back from true potential. As offset contracts are not publicised, this is a secretive information channel, which currently needs to be collected from different sources.

A solution put forward by one particularly successful SME in the space recommended that when a MoD is buying material, an SME can assume they will demand a certain percentage of offset. This is the opportunity for an SME to prepare accordingly, by contacting the government and

communicating their capabilities, they are able to be put forward and be matched with appropriate projects. It was noted importantly that the SME must be in the offset contract from the beginning as once a supply contract has been awarded, the need for the SME becomes less urgent.

The research pinpointed the right moment for an SME to negotiate, is before the obligors are competing in the bidding process. An SME should endeavour to include themselves in all the competing bidding documentation, to maximise their chances of inclusion.

### 5.3.2 SMART Offset

#### ***“Offset needs to be regulated.”***

Christian Sylvain, Associate Expert with the ESSEC Business School’s European Center of Law and Economics,  
and Chairman, European Club for Countertrade & Offset

To management practitioners, offset success is seen as achieving offset obligations, first and foremost. It was found to be understood that offset does need to be regulated, and undertaken in a way that does not put the company at risk or put the company in reputational damage, and only then can true economic benefit be delivered.

Obligors confirm that the costs of satisfying the offset into the price of the programme are commercially required, however upon satisfying the obligations, the economic benefit and true value for the Nation is then in place to continue to deliver for the future. Nations quantify the value of the benefits over a series of milestones, the ingredients for the package being delivered:

**Employment:** Number of jobs created

**Promotion of Exports:** Value of exports made

**Local R&D:** Value of technology that was bought

**Development:** of the Value/ Supply chain

***“There will be successful projects, and those that are not so successful,  
due a number of factors beyond the obligor’s control.  
That’s the nature of the offset business.”***

Ian A. Lane, VP - Industrial Cooperation & Market and Competitor Analysis, BAE Systems

Experts in the field recommended to strengthen chances of success, thorough research at the onset of a project is required. Strategic businesses that want to be successful in this space need to map offset onto the corporate model. Interviewees identified four main stakeholders involved in the process, that need to manage expectations accordingly, and be fair and reasonable in their conduct for offset to balance:

**Seller** includes prime contractors, and the SMEs they partner with in order to fulfil offset obligations.

**Buyer** Country, that has a governing body that oversees offset/ countertrade.

**Beneficiary** partner who will now be the recipient of the obligation, receiving the offset benefits.

**Practitioners** are the experts putting the deals together to become commercially viable enterprises.

The research found that when defense contractors put in a bid, their main objective is to sell their product (i.e. an aeroplane) for a commercially viable price. Whilst varying levels of in-house expertise are available depending on size, type, and philosophy of the contractor, these companies are not in the business of creating economic contributions in other countries. This was found to be particularly true in the instance of indirect offset obligations. Expert practitioners insist their role as specialist intermediaries are crucial to assist with identifying where the market makes most sense, who is going to pay for which activities, and how the programme will be financed.

Practitioners agree offset requires insightful, long term oriented goals, looking at a market for future growth and development. Throughout the primary research the factors that define SMART Offset were compiled as requiring:

**Specific** company strategy incorporating offset (proactive).

**Measurable** and robust monitoring systems for efficient valuation of programmes.

**Achievable** absorption of requested offset (ATC) to create sustainable long-term partnerships.

**Realistic & relevant** government Policy with corresponding expectations between parties.

**Timely** delivery of initial programme followed by continued support.

## 5.4 Conclusion of Primary Research Findings

***“Competition can be fierce, and offsets will often be the clincher.”***

Lindsey Shanson, Editor, Countertrade & Offset

Offset allows countries and their businesses to become more competitive. For global companies it opens doors to new export markets and for buying Nations, intellectual knowledge and independent capability can become enhanced. When planned and managed correctly, offset was found to be an effective market entry strategy.

In Europe, due to the regulation changes, a lot of the activity is said to have gone underground. Where the defense directive does not apply, outside of Europe, International markets are still extremely active. Developing economies with increasing defense budgets and requirements are usually aligned to a national Defense Industry Strategy or a general National Socio-economic Development Strategy. Companies would prefer to refuse offset, however in practice if they do not

offer it, they are unable to compete and win business. The research indicated that defining national security requirements in general was key, and could be very opportunistic for companies.

Developing projects and ideas that work within the increasingly complex rules set out by certain governments, are compliant within own government, and derive offset credits was found to be an arduous task. Each Nation needs and demands a different set of criteria, and therefore the idealism of harmonisation simply is not an option.

In terms of international marketing opportunities, the offset proposal can be deemed just as important as the product; regarding quality, price, and availability. It was found that a poor offset package diminishes a company's chance to compete and no offset package almost guarantees the loss of the business. In order to maximise offset potential, the companies succeeding in the space appreciate it a balanced approach, with both internal and external stakeholders to consider.

More transparency between business and government is said to be needed, however, with defense it was acknowledged that this isn't always possible. Commercial growth opportunities and economic benefits should and can be matched to companies with pro-active strategies and extensive portfolios; furthermore, working together in partnership with SMEs on a collaborative approach can complement capabilities.

Contractors found that when strong partnerships were created, opportunities to develop a new technology locally provided success two-fold; both market entry and cost effective results.

The literature and the expert panel of interviewees both refer to the importance of applying better ways of accounting for, regulating, and documenting offset, in order for it be an effective mechanism that facilitates trade. A combination of factors were recognised that allow for SMART offset to be applied successfully, taking into consideration a proactive strategy, robust monitoring systems, absorption capability of buying nation, flexible government policy and continued support of the programme after fulfilment.

***“We will not simply be buyers or clients, but partners.”***

Roberto Mangabeira Unger, Brazilian Minister of Strategic Affairs, 2008

Based on the recommendations extracted from the literature, and advice gained from the expert panel, these companies could consider the following measures as a framework that leads to the implementation of SMART offset.



Figure 19: Proposed SMART Offset Conceptual Model

The parties identified and the requirements of their roles outlined in a series of ‘V’s’ in Figure 19 merge together to propose that offset should be seized upon by western companies to provide market entry through close long-term partnerships, rather than via the pursuit of short-term objectives.



## CHAPTER 6: CONCLUSION

### 6.0 In conclusion

#### ***“Offset is here to stay!”***

Simon Edge, Head of Industrial Participation, Agusta Westland

The purpose of this research was to identify the key factors that determine offset success, and how it can be transformed from a perceived maleficent obligation into a business-winning marketing opportunity. In order to gain meaningful insight into this conundrum, it was necessary for the researcher to gain a deep understanding of attitudes and behaviours towards the practice from those working within the industry today.

An investigation into the phenomenon of countertrade as a tool to advance international business transactions ensued. Reciprocal trade practices were found to be important, not just during austerity, with offset opportunities shown to facilitate mutual benefit.

Having identified the major contributions from previous studies, this research then collected and analysed qualitative data from 28 semi-structured, in-depth expert interviews. The study population is relatively narrow due to the unique discipline of the topic area.

Whilst this research shows similarities between theory and practice, there are certain differences that should be noted. Firstly, the umbrella term ‘countertrade’ referenced in the theory has a different understanding within industry language, which refers to the outdated trading form of bilateral barter. In practice, offsets are a reality for procurements of scale in international trade. Found to be taking place in defense and aerospace, and also civil aircraft, telecoms, and utility sectors.

This area of study was shown to be of high importance due to the growing defense market across developing and start-up Nations, with interlinked offset obligations on the rise and an increasing number of countries framing and implementing sophisticated policies to enhance in-market capabilities.

Due to the WTO policy against offset for developed countries and the EU anti-offset directive, the balance is perceived to be skewed, hurting European companies that are following the directive and creating a deceitful trading arena for those ignoring it and not disclosing their actions.

The research exposed multiple risks associated with undertaking offset, which can be mitigated through best practice outlined. However, the research uncovered this largely sits within misunderstanding and perception, with an internal and external communication piece around raising awareness and increasing transparency of practices required.

The secondary research indicated constraints could possibly be eased with a formal set of guidelines implemented, although the primary data acknowledged that going further to implement any form of forced harmonisation wouldn't allow for countries to achieve their individual goals and aspirations.

To circumvent known issues rising, the implementation of SMART offset techniques and the associated key components were collated from the panel, steering towards the creation of new long-term partnerships.

This SMART approach to offsets allows for sustainable commercial and economic results. At the moment the defense industry is known to be a "buyers' market" that is not allowing practitioners to receive the best prices they have come to expect. Offset equals a balancer, requiring a cooperative type mentality between prime contractors and SMEs, defence industry associations and governments agencies, and in-market partners alike. Offsets require a lot of time, effort, and creating thinking, and proactive approaches whereby all parties can benefit from a unified vision.

Evolution in offsets and requirements of global trade now call for strategic approaches, including flipping the offset thinking from 'obligation' to 'opportunity'. It is each companies approach and skills at prospecting and developing opportunities that provides that competitive edge. Any industry that procures on mass can benefit from a portion of components made abroad with capable partners. If undertaken wisely and sensibly with a rational policy, offset can be beneficial from both an economic development and commercially viable perspective.

Finally offset proposals will never win a contract alone but can, under the right circumstances, be a discriminator/eliminating factor. The need to outmanoeuvre and outperform competitors in this dynamic, complex global market is vital. To undertake successful offset in practice requires longevity, dynamic partnerships, and sustainable growth plans; not a static one-dimensional contract or isolationist mentality.

The climate is changing and this reinforces the need for companies to not only think about what is compulsory by law, but what is best practice, which will have a critical impact on future business success.

## 6.1 Research Limitations

***“Don't be pushed by your problems. Be led by your dreams.”***

Ralph Waldo Emerson, Philosopher & Poet (1803-1882)

Although all due efforts were made to ensure the research was a reliable representation, as with any study undertaken there is the potential for sampling and non-sampling errors to occur.

The employment of a quota sample required a range of respondents from across the global industry, and a sampling error could be denoted by implementing such a broad breakdown. In regards to the small sample, the National Centre of Research Methods notes that whilst themes can be generated from this size, it may not command warranted respect.

In addition to unintentional bias, another limitation related with the sample is the potential for it to non-representative of the population. Although the investigation aimed to mitigate these factors using the sampling methods described in the methodology chapter, due to limited resources and contacts, it is impossible to eliminate all sources of error completely from the study. Due to student time constraints and financial restrictions, access to and cooperation of contacts there was a geographic bias for face-to-face interviews to be conducted in only Greater London (UK) and Paris (France). Global interviews were undertaken over the phone/ skype/ and via email; it is possible that the same high-quality level of discussion and rapport could not be replicated as it could person.

Although secondary market data is cheaper and quicker to obtain, there are disadvantages including the reliability as it was not collected for the specific offset study at hand, and accuracy in regards to potential errors that. Although the researcher strived to obtain the most up-to-date and relevant industry data possible, timeliness can be a problem with such studies. The limited availability and quality of data in this instance, coupled with the indistinct nature of countertrade was challenging.

Also, time restraints for respondents due to the nature of the expert interview panels roles and seniority needed to be considered, and flexibility of the interviewer an absolute necessity. It was extremely important to conduct the interviews with utmost professionalism, and secure trust.

Tape recording the interviews would have been ideal in order to capture and review later, and so the researcher could fully immerse oneself in the process, but in order to facilitate an open, relaxed discussion, this option was not used and detailed notes were taken at each meeting. Other limitations included the potential for respondents to be cautious about their answers and not reveal commercially sensitive information desired for the research to be conclusive, such as specific information on deals. Providing information but requesting anonymity on certain detail may have hindered presentation of the final research findings.

## 6.2 Suggestions for Future Research

***“Education is the most powerful weapon which you can use to change the world.”***

Nelson Mandela, 2003

Without further research into the complexities of every nation’s individual offset policies, it is not possible to implement best practice across the board, but instead a framework for doing so.

Future research into how each of the European countries have modified their approach and policy to offset after the recent EU procurement directive would be an interesting area of study, particularly the effect it is having on each:

1. Which Countries have adapted;
2. How has the policy changed;
3. What is being implemented;
4. What impact are the changes having;
5. What are companies doing to ensure ethical responses are considered.

Another avenue for further investigation would be a dedicated focus on the civil sector, given that many developing countries are now employing civil-civil offset policies, and the specific impact that is having on exporters.

Also, a dedicated UK study would be a worthy area of focus, exploring the trading activities of British companies in this space and assessing the results of the governments Defence Growth Partnership (DGP).

Measuring the impact that Directive 81 is having on European countries, in time, will be useful as the legislation has only recently been implemented.

In addition, further research on measuring the true cost of offset and the tangible results that fulfilling obligations can obtain for all stakeholders, and communicating those results more openly would help to demystify this surreptitious topic area.

## APPENDICES

### APPENDIX I: Expert Interview Questions

1. Have you/ do you (or your colleagues) currently participate in any countertrade activity, and if so, at what level? If not, why not (if applicable)
2. What is your current stance on countertrade and why?
3. Do the risks outweigh the benefits associated with countertrade, or vice versa; in what way?
4. What is the general consensus from across your industry on using countertrade techniques in International Business?
5. Do you see untapped marketing opportunities for countertrade activities?
6. Under what circumstances would you see countertrade activities being beneficial over conventional forms of market entry?
7. Under what circumstances would you say countertrade techniques should be avoided?
8. What change would need to take place/ processes implemented in order to overcome the latter?
9. What countries/ regions/ industries are you aware of implementing this practice today? How do you see the current situation and future trends evolving over the coming years?
10. Do you think that IMF, WTO and World Bank should reconsider their stance on countertrade as "distorting free trade"? (Discuss also the EU's implementation of the anti-offset directive).
11. In your view, how can countertrade techniques be used to facilitate trade outside of negotiations with developing countries/ during times of austerity; how can offset work for advanced countries?
12. From your experience/ knowledge of countertrade techniques, do you see any other opportunities for marketing/ angles for research that would be relevant and useful to investigate?
13. The key issues that define offset success; do these issues in practice work as intended?
14. How can SME's operating in the World's export markets become aware of and best respond to offset?

## APPENDIX II: Qualitative Interview Schedule

	DATE	TIME	NAME	COMPANY	JOB TITLE	BASE	INTERVIEW TYPE	LOCATION	LENGTH
<b>A</b>	17/03/15	4.00pm	Aerospace, Defence & Security Procurement Seminar			UK - London	EVENT - Observer	Bird & Bird O	3
<b>1</b>	17/03/15	8.00pm	Antonio Hoz	Vector	Director	Spain	Unstructured	London: Near	2
<b>B</b>	18/03/15	9.00am	London Countertrade Roundtable (LCR) Quarterly Meeting			UK - London	EVENT - Observer	Linklaters HQ	4
<b>2</b>	24/03/15	6.30pm	Colin Heritage	Stemcor	MD, Stemcor Trade	UK/ India	Unstructured	London: St.Pa	3
<b>3</b>	09/04/15	6.30pm	John Kjorstad	KPMG	Global Services' Infra	UK/ India	Unstructured	London: Eust	2
<b>4</b>	17/04/15	1.00pm	Pervaiz Nasir	CORE Management	MD	UAE - Dubai	Semi-Structured	Skype	1.75
<b>5</b>	23/04/15	5.00pm	Lindsey Shanson	CTO Data Services C	Editor	UK - London	Semi-Structured	Phone	0.75
<b>6</b>	29/04/15	11.00am	Dr. Kogila Balakrishn	University of Warwick	Principal Fellow	UK - Oxfordshire	Semi-Structured	Skype	1
<b>7</b>	29/04/15	3.30pm	Simon Edge	Agusta Westland	Head of Industrial P	UK - London	Semi-Structured	London: 8-10	1.5
<b>8</b>	29/04/15	7.30pm	Jon Barney	Avascent	MD	USA - Washington D	Semi-Structured	Phone	0.5
<b>9</b>	30/04/15	10.00am	Brinley Salzmann	ADS Group Ltd	Director - Overseas	UK - Hampshire	Semi-Structured	London: Salm	1.5
<b>10</b>	01/05/15	4.00pm	'Jim McKay'	'Nice German Bank'	Global Head of Struc	UK - London	Semi-Structured	London: 10 Bi	1.5
<b>11</b>	05/05/15	12.00pm	Cary F. Viktor	Lockheed Martin Co	Director, Industrial P	USA - Orlando, Flori	Semi-Structured	Phone	1
<b>12</b>	07/05/15	4.30pm	Rahul Madhavan	US-India Business Co	Director Aerospace	USA - Washington D	Semi-Structured	Phone	1.5
<b>13</b>	08/05/15	1.00pm	Tariq Farwana	StrateSphere	President	USA - Columbus, Oh	Semi-Structured	Phone	0.5
<b>14</b>	09/05/15	8.00pm	Nicole 'Nic' Verkindt	OMX	President	Canada - Toronto	Unstructured	Phone	0.25
<b>15</b>	11/05/15	11.00am	Nick Telford-Reed	WorldPay	Director, Technology	UK - Cambridge	Semi-Structured	Skype	0.5
<b>16</b>	15/05/15	12.30pm	David Manners	Retired	Consultant	UK - Tewin, Hertford	Unstructured	Phone	0.25
<b>17</b>	01/06/15	3.30pm	Prof. Ron Matthews	Cranfield University	Professor of Defence	UK - Cranfield	Unstructured	London: 1 Vic	2
<b>18</b>	02/06/15	10.00am	'Sally Moss'	'ABC Defense'	Treasurer	Belgium - Brussels	Semi-Structured	Phone	1
<b>19</b>	02/06/15	1.30pm	David Hew	APCA	Advisory	Singapore	Unstructured	Skype	0.25
<b>20</b>	04/06/15	7.20pm	Dov Hyman	Dolin International	Owner	USA - NYC	Semi-Structured	Phone	1+
<b>21</b>	05/06/15	4.30pm	Daniel Harrison	UKTI - BIS	Head of Defence and	UK - London	Unstructured	London: 1 Vic	1
<b>22</b>	09/06/15	1.00pm	Laurence van Bockel	Van Bockel & Partne	Owner	Belgium - Antwerp A	Semi-Structured	Skype	0.5
<b>23</b>	12/06/15	2.00pm	Ian A. Lane	BAE Systems	VP - Industrial Coop	UK - Guildford	Semi-Structured	London: Stirli	1+
<b>24</b>	16/06/15	11.00am	David McIlvenna	Rolls-Royce PLC	Senior VP Industrial	UK - Derby	Unstructured	London: 62 B	1+
<b>25</b>	17/06/15	3.00pm	Ko van Amerongen	defKon Solutions	Owner	Netherlands - Utrech	Unstructured	Phone	1+
<b>C</b>	18-19/06/15	(2 Days)	ECCO Symposium #10			France - Paris	EVENT - Observer	BNP Paribas c	12 hrs+
<b>26</b>	19/06/2015	12.30pm	Rutger Deurvorst	Axxiflex	MD	Netherlands	Unstructured	Paris: Restaur	1
<b>27</b>	23/06/15	6.30pm	Tom Gargett	Marshall Aerospace	Head of Commercial	UK - Cambridge	Unstructured	Phone	0.5
<b>28</b>	24/06/15	1.00pm	Lukas Bartusevicius	Forensic Risk	Business Developme	UK - London	Unstructured	Phone	0.25
<b>Q1</b>	N/A	N/A	Gemma Atkinson	Active International	Commercial Director	UK - London	Email - Structured	N/A	N/A
<b>Q2</b>	N/A	N/A	Umar Farooq	Softax (Pvt) Limited	Trainer for Credit In	Pakistan - Lahore	Email - Structured	N/A	N/A
<b>Q3</b>	N/A	N/A	Christian Sylvain	AREVA	Directeur des Comp	France - Paris	Email - Structured	Met & ECCO (	N/A
<b>Q4</b>	N/A	N/A	Stephen Barnard	Adjutant MTC	CEO	UK/ Germany	Email - Structured	N/A	N/A
<b>Q5</b>	N/A	N/A	Joost van Gemert	Rheinmetall AG	Head of Corp. Offset	Germany	Email - Structured	N/A	N/A

## APPENDIX III: Qualitative Interviews; Country insight collected on offset in practice.

### III.I Europe

It was raised by one US interviewee that due to the significant subsidiaries handed out by the governments of European companies, they're able to utilise offset more as a marketing tool. However this notion was debated as a lot of the defense funding across Europe was found to have been cut in recent years.

#### *Denmark*

Denmark policy is in the law, any deal must be defense or aerospace.

#### *Finland*

Have also been protecting as much as possible, by using the 396 national security exemption.

#### *France & Germany*

Where most countries request/ did request offset in some form, exceptions include France and Germany. Both countries do not have a policy; they purchase everything from domestic suppliers. When a need arose, they were required to make a bespoke one.

#### *Greece*

Recently, Greece has been looking to Russia for assistance, attempting to find creative ways to get out of debt through international trade.

#### *Netherlands*

Have also been protecting as much as possible, by using the 396 national security exemption.

#### *Norway*

Offsets not applicable, but will be "working with industry to make it work". A way around offset here potentially. Norwegian industry is said to have harsh obligations to meet, but the capacity to absorb is not available.

#### *Poland*

Recently seen to be implementing civil offset policies.

#### *Russia*

Russia, currently facing an international embargo is said to be proposing a barter with China; steel in exchange for rubber, rice, and frozen chicken.

With the current situation in Russia, more procurement is predicted, and also in practice there will be more leniency towards the directive.

### *Sweden*

Swedish prime contractor (SAAB) recently sold a fighter aircraft to Brazil. This is a huge win, as they're competing against US firms etc. Understanding how Sweden achieved this and the way they are exporting is a very interesting example that could help other smaller nations compete on the global scale with the likes of the US.

In return, Sweden do not apply offset anymore, and it is said they will no longer request it.

### *Turkey*

Turkey have recently been implementing civil offset policies. Turkey gets around GATT as they have an 'observer status'. However, industry experts advise their public procurement law on the matter contains many discrepancies and legally flawed.

Turkey was previously subject to arms embargoes from 1974 when they invaded Cyprus, which revealed their over reliance on the US. They were essentially not being given what they wanted and being blackmailed, so on the back of that developed their offset policies (to have Turkey Joint Venture partners) so now they are reaping the benefits, defense wise they are now highly capable.

### *United Kingdom (Industrial Participation)*

Prior to the directive, European programmes, because of the social system and unions in place, had a focus on putting work in factories keeping people employed, with some transfer of technology.

The UK defense market is now stagnant, with companies having to look at markets further afield. Illegal offsets are said to be taking place underground in the UK, yet the term is no longer used.

The UK does not have an official offset policy or formal Industrial Participation programme, but did introduce a formal Industrial Engagement Policy, as a new way of engaging. In the industry this is suggested to have the same premise under a different name. This voluntary policy seeks to invite foreign defense contractors to sign up, and in practice those contractors know what do when that arises. Being voluntary allows it to go beyond the European defense directive.

The fear that by banning offset, all the European Commission would essentially be doing is to drive the activity underground seems to have come true. Practitioners believe if governments are serious about development then they need to allow something more active than the voluntary approach.

## *III.II North America*

### *Canada*

Industry Canada have only just changed their rules.



Combining R&D Tax Credits and Offsets. To Boost Earnings and Maximize Offsets in Canada currently presents an untapped opportunity.

#### USA

The US fully support the WTO contention, yet they have one of the most restrictive trade measures on the statute books, and are one of the main beneficiaries of offset policies.

The research found that many companies – certainly from the US standpoint - would not participate in offset if it weren't compulsory.

#### III.III Asia Pacific

There is currently a lot of offset taking place in the APAC region, with a significant amount of defense expenditure. Civil offsets pockets are taking place in Singapore, China, Japan, Indonesia, Brazil, Mexico, and the importance of the emerging markets. Transfer of technology is one of the utmost important areas of development requested. Indonesia, Malaysia and the Philippines are the only countries that have formal "countertrade" (bilateral barter) policies in place, however these are said to not be practiced pro-actively.

#### Australia

Australia dropped traditional offset almost twenty years ago and the The Australian Industry Capability (AIC) program operates on a different model to most countries. Here, there is no commitment to a target percentage (normally 35-100% is the range), instead it is a contribution or negotiation. The AIC Program is focussed on capability and deny that it is an offsets program at all, allowing for a smarter and more agile industry base. Practitioners described this program as quite unique and different.

#### China

A lot of civil offsets currently taking place across China – worthy to note that China is the biggest commodities producer in the world apart from Oil.

The Chinese Government have smart policies, planning ahead for the future, and embrace long term partnerships. The EU can grow together with the Chinese Nation this way, facilitated through Offset.

#### India

International Businesses wanting to work with India must have joint partnerships. This is the rational and reasonable way to conduct business in this space moving forward. India, doesn't quite yet have the manufacturing prowess and capabilities of making these advance structures to be a successful marketing agency itself as yet. Within the next 15-20 years, India is on track to be a major industrial heavy weight in the global scenario.

Due to the way India have set out the policy in previous years some industry professionals feel it has been “a recipe for inviting companies to bribery and corruption”. Regardless, most agree it has not been industry friendly at all. Although it wasn’t well received to begin with, the policy has been changing, slowly. SMART offset, where a win-win-win, for seller, buyer, and obligator has not been achievable previously due to vested interests. They thought they were strengthening themselves with such a programme, but in practice it hasn’t worked that way. Due to the bureaucracy, partners working with India can expect contracts to take years to be received.

There is a new DPP (Defense Procurement Programme) every year, and part of that is offset policy. Fulfilment of obligations is required to be in line with the policy that was in place at time of contract award, not on the most updated policy. Currently challenging times executing obligations in India. Tremendous amount of confusion taking place on technology transfer etc.

In 2005, US specifically defined its Bilateral ‘new defense framework 2005’ marking the beginning of new US transfer of defense equipment to India. \$0 to \$10.5-\$11 Billion, in the span of 10 years.

In summary, India’s policies are very complicated & challenging. Great focus on direct offset, and too much focus on sensitive technologies. Despite the complexities of the policy, due to their buying power India, are a too big a market to ignore.

#### *Indonesia*

Indonesia are just coming out with a new policy.

#### *Iran*

Most countertrade today due to sanctions and related to oil.

#### *Japan*

Japan do not currently have an offset policy, however speculators are positive they will adopt one shortly. They’ve just changed their procurement rules and are looking to work with other countries. Since WW2, Japanese companies were not allowed to export any defense products, assembling (under license from US) or testing etc, and it all had to be undertaken in Japan. This was all very low volume, at a very high price. Trading companies could do indirect offset, but couldn’t do any defense offset. The new president in Japan is now starting the process of opening the country up, marketing their own goods and exporting 2 years ago. The recent further shift in the philosophy of Japan commenced within the last couple of months. Japan can absorb a high amount of technology, offering a new market and new opportunities.

### *Korea*

Korea has had for 30 years. Korea has been requiring many offsets, and has helped a lot with technological development of the country. Koreans are looking for ToT and knowledge so they can reengineer and produce their own capabilities.

### *Malaysia*

Malaysia – Formal policy, says it must when certain sectors purchase from abroad, must have industrial participation of some kind. Already have/ or are introducing civil offsets policy.

Malaysia vision 2020: ETP economic transfer plan/ programme. When looking at devising offset strategies and proposals, immediately look back to a countries requirements. If country is looking to enhance their aerospace/ defense sector, no point trying to upscale another sector – that might come along as part of the programme. Malaysia has been implementing civil offset policies.

### *Singapore*

Singapore used to have a policy, but do not anymore. They felt the money it would cost to setup an offset policy, they could spend on more equipment instead. Singapore/ Changi “industrial tech cluster”; Through globalisation, Rolls are establishing there. Approx. 5 years ago established assembly and testing facility at ‘Seletar Park’. Singapore Government promotes ‘Strategic Industries’ and actively supports through investment. The Singapore Government are very generous with R&D funding to encourage innovation. This proximity allows for innovation amongst suppliers, and is seen as an “Industrial Technology Cluster”.

### *Thailand*

Thailand’s former countertrade (bilateral barter) policy was found to be corrupt and is no longer of legal framework. New policy is planned to be resurrected.

## *III.IV Middle East & North Africa*

Some African countries don’t even have offset agreements, they palm oil for guns etc., simple transactions, they are not savvy enough yet... then moving onto more complex ways of doing business, defense sector comes in with the high technology.

### *Israel*

Israel represent one of the most successful offset programmes. Already have/ or are introducing civil offsets policy. Israel was pinpointed as focusing on opportunity versus obligation. There was recognition across some interviewees regarding offset as evil, and wanting to change that perception. Innovative, proactive companies can be more successful by undertaking business and offset in some countries otherwise avoided, such as Israel. A significant amount of companies in Israel are continuing operations years after their offset obligations were satisfied. Such examples

include factories set up for the purposes of fulfilling offset, and then continuing to stay in country to manufacture and being very successful in doing so.

#### *Kuwait*

Already have/ or are introducing civil offsets policy.

#### *Morocco*

The value of the obligation expressed as a percentage of the contract(s): Negotiable, bidders to take the initiative.

#### *Oman*

Oman has just changed their policy: Partnership for Development (PFD) regulations, the sultanate's equivalent of an offset program. Although termed 'regulations', the PFD has structured a model designed to offer flexibility based upon what is said to be a collaborative approach.

#### *Saudi Arabia*

Already have/ or are introducing civil offsets policy. Along with the UAE have the biggest offset requirements in the present day. Saudi is the biggest commodities producer in the world for Oil.

#### *UAE*

A resource rich country with high economic resources, the UAE are attempting to develop new areas by using offset, to invest in their future. Most procurement currently taking place today in the UAE, and in effect they have currently the biggest offset requirements. Tawazun economic council are their offset authority. UAE possess the clearest, 20-30 year vision. Well thought through process, they use these sorts of deals to further build up aerospace civil sector; incredibly difficult for those involved.

### *III.V Sub-Saharan Africa*

African countries are starting to make offset requirements around civilian infrastructure project. In the past, there have been a multitude of dealings with China. These have been for the construction of infrastructure (power plants, roads, railroads etc.) in exchange for national resources.

#### *Ethiopia*

One interviewee provided an example of working with Ethiopia, whereby they were faced with a dilemma. Ethiopia insisted on direct offset, however, in this instance finding a capable high tech aerospace company to partner with was not possible. Not a well thought out policy.

### *Ghana*

Huge potential to build up the cocoa production facilities, as Ghana to not have a chocolate industry, but are rich in the resource so currently are reliant on export of raw product.

### *Nigeria*

For the possibilities of what can be achieved with offset, Nigeria can be used as an example. Helping Nigeria to create industry is very difficult, but achievable. There has to be a certain critical mass, in a controlled way.

## APPENDIX IV: Reflective Statements

### (1) Meeting Date: 27<sup>th</sup> February 2015

**Purpose:** To discuss progress to date, and next best steps to proceed.

**Discussion:**

- Chapter 1; include the relevant figures within the background.
- Methodology; progress, should be quite straight forward.
- Interviews; share questions. Potential anonymity issues; explain for academic purposes.
- Objectives; could be tweaked as I go, need to really focus on the findings.
- Analysis; investigate the qualitative software systems available, will help to subset data.

**Outcome:** To also undertake more background research; reading should be continuous.

**Upon reflection, changes made as a result:** Thematic analysis approach to qualitative findings.

### (2) Meeting Date: 27<sup>th</sup> March 2015 (*over the phone, with follow up email 10<sup>th</sup> April 2015*)

**Purpose:** Discussed feelings of disheartenment with topic.

**Discussion:** Reassured still time to complete; another angle/ topic could also be researched.

**Outcome:** Confidence instilled to proceed; otherwise utilise current research as new topic base.

**Upon reflection, changes made as a result:** Remained balanced. Continued with topic.

### (3) Meeting Date: 17<sup>th</sup> April 2015

**Purpose:** To discuss progress to date, and next best steps to proceed.

**Discussion:**

- Reviewed and tweaked objectives and questions; my concern with marketing angle.
- Detail that falls out of scope of my paper, can be included in areas for further research.
- Be prepared to suspend judgement on trade in defense, in order to proceed.
- Record interviews if possible, ensure to obtain permission prior if so.

**Outcome:** Proceed to interview stage. 60 would be too many. 20-40 is realistic.

**Upon reflection, changes made as a result:** Must ensure to remain objective for discussions.

### (4) Meeting Date: 8<sup>th</sup> May 2015

**Purpose:** Discuss progress with interviews undertaken so far (13 complete, approx. halfway).

**Discussion:** Timeline progress and draft version submission date to aim for.

**Outcome:** Begin to formulate what each of the 5 analysis pages will contain.

**Upon reflection, changes made as a result:** Remember what I set out to achieve, and what is within scope of my paper, and what is not (i.e. legislation/ policy focus is not required).

### (5) Meeting Date: 3<sup>rd</sup> July 2015

**Purpose:** Discuss extenuating circumstances, and how this has impacted timeline and deadline.

**Discussion:**

- Breakdown of marks; where to now focus my time to complete.
- Analysis of results so far; thoughts on undertaking a quantitative survey.
- Privacy requests of interviewees/ conference information; use pseudonyms if required.
- Moral compass issues; had agreed to put this aside from the beginning, so continue this.

**Outcome:** Dag to look into timings. Kim to send Dag a draft of analysis findings after weekend.

**Upon reflection, changes made as a result:** Will not undertake added survey. Revisit objectives, ensure lit review connects to analysis, connects to conclusion. Anything else beyond scope.

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