

Success Factors of German-Chinese Cooperations in the Field of Printing Industries

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Germany and China are very complementary in printing media industry cooperations. At present, existing cooperations can be successful on one hand but can be doomed for failure on the other hand. What shows the differences between success and failure?

Nowadays the print media sector in China opens more and more. Researches about the key factors of german-chinese media cooperations do not only result as reference values for strategical investments of german companies but also build up theoretic basics for the chinese media sector, acquiring foreign investments, technical knowhow and management.

The assimilated results can be used in the, for foreign investments more and more opening publishing sector i.e., as an invaluable proficiency for future cooperations.

1. Assignment and Explication of "Printing Industries"

"Printing industries" or the "printing sector" is a comprehensive term including print shops, (multimedia) publishing houses producing print products and their suppliers (figure 1). Print products are mainly books, newspapers, magazines, journals and job printing as well as printed packages or e.g. banknotes. Especially in emerging nations like China the packaging sector is a growth sector. Less important is the usage of printing technologies for industrial products, e.g. printed electronics and printed components used in the automotive industry.

Suppliers are producers of equipment in pre-press, press and post-press, including specialised hardware and software in pre-press, networking equipment and for the necessary materials paper, inks, printing plates et cetera.

2. Importance of the Printing Sector in Germany and China

Germany is an important market in the printing sector, China is one of the largest printing markets and currently the third largest market next to the US and Japan. Both countries have a long tradition e.g. with each others respect to the inventors of printing technology, Johannes Gutenberg und Bi Sheng. This is an important reason for printing products being seen as cultural goods. That's one of the reasons for e.g. fixed retail prices for books in Germany. Another characteristic is e.g. the importance of calligraphy in China joining script, art and philosophy.

Germany is very important especially as a supplier of the printing industry, taking into account that more than 50% of the value of the printing machines worldwide are produced by German enterprises (c.f. table 1), including international

oriented large enterprises and medium-sized enterprises. In China there is also a supply industry, e.g. Beiren producing offset printing machines.

Table 1: Examples for German Print Suppliers

Supplier	Main Products / China Activities
Heidelberg	Printing Machines Production in Shanghai (Heidelberg Graphic Equipment (Shanghai) Company Limited and Print Media Academy located in Shenzhen)
manroland	Manroland Printing Equipment (Shanghai) Co.Ltd. (100% WFOE)
KBA	KBA Printing Machinery (Shanghai) Co., Ltd. (100% WFOE)
MBO Binder	MBO Binder Graphic Systems (Beijing) Co.Ltd (100% WFOE)
Axelspringer AG	Different type of co-operation: Springer set up at the publishing house of Qinghua's University an editorial office for the jointly publishing of: Building Simulation, an international magazine in English language. The overseas distribution is taken over by Springer AG Germany. Conjointly publishing of more than 200 technical literature in English language within the coming 5 years. Autobild.com.cn – co-cooperation with the online service platform Autblaze with head-office in Hongkong.

3. Current developments concerning markets and competition

There exists economic and structural reasons for current developments in printing industries, as well as technological innovations, increasing environmental challenges and questions of sustainability. The most important global challenges are is media convergence in the TIMES businesses (Telecommunication, IT, Media, Entertainment, Security) and the changes from mass media to interactive and individualized media.

3.1 Developments from a German Point of View

Economic cycle challenges: The advertising market is very important for the print media, but advertising has considerable cyclical fluctuations. In addition to this getting loans (financial world crises) is a big challenge for Print shops and suppliers in the US and Europe. Especially smaller enterprises have problems with large investments e.g. for new printing machines.

Structural Challenges: More and more parts of the advertising budgets are switching to online media, due to changes in media usage. In addition costs are increasing due to an increasing number of distribution channels for publishing

Industrial media sectors	Industry-oriented media services	Suppliers of media sectors
Publishing Houses and Print Shops	corporate design	printing machines
Radio and TV	customer relationship management	paper, paperboard & ink
telecommunications	information research	audio-visual technologies
games & E-learning	corporate publishing	IT for media products and business processes
computer animation, virtual reality	mobile internet platforms	
cinema	packaging printing	
event management		
advertising		

Figure 1: The printing sector being a part of the media sector (in bold = high importance for printing sector)

houses. Topics like “convergent media”, “Newsplex-Center” and the usage of print brandings in other media are therefore getting more and more important for publishers.

In Germany the number of print shops decreased from approx. 13.900 in 2000 to 10.900 in 2007 (c.f. BVDM). Figure 2 shows competitiveness according to Porter for print shops from a German view. The situation of print shops is strongly influenced by high competition. Market entrance barriers e.g. for print products from China and Eastern Europe are low. In addition media consumption is changing, on the one hand other media are going to substitute print partially, and on the other hand media usage times are enhanced. The power of suppliers has a strong impact on the printing industry, especially through technological developments like increasing production capacities. The power of customers is defined by intermediates, e.g. by using new distribution channels (internet distribution).

Figure 3 shows that a long-term alignments of business circumstances are possible. For a short term german print shops are in a situation where cooperation is necessary and reasonable.

There’s another important structural change: from commercial (craftsmanship) to industrial structures. The printing market is a market characterized by cut-throat competition. This means continuous increasing capacities through new printing machines in rather slowly growing markets, combined with a more and more globalised market. In Germany and some other countries like Australia there is in addition the problem of

finding establishment successors for SMEs.

Substitution effects e.g. through online-suppliers create pressure like “devaluation of content” and „cost-free mentality” of users in the Internet. The newspaper market stagnates and there are smaller runs.

Nevertheless there are traditional strengths of print products: Surface feeling and „easy access” of print media, achievability, and print products still have the biggest part of advertising revenues. There are new products and services e.g. in the field of Corporate Publishing, free newspapers und Database-Publishing. Publishing houses change to media suppliers with cross-media products. For advertising agencies the below-the-line sector is increasing. In book-trading there are important changes concerning the situation of intermediates because of online book-traders. There are regulations for sales organisations of press products, e.g. an obligation to contract, a legal enforcement for distribution (“Pressegrossunternehmen”). There are price fixings for some print products too and the intermediate must supply every point of sales with every kind of available publication.

In the annual media report the federal government of Germany made a statement related to the structural problems: In opposition to books there are decreasing reaches and circulations of newspapers and magazines for years now. In addition they have losses in advertising revenues. For newspapers there are structural problems. The problems of magazines are partly more cyclic problems.

The forecast of the German government is

that competition of electronic and online media against print will still increase. Therefore the economic situation of publishers will continue to be under pressure. Nevertheless newspapers, magazines and books are having a secure existence (c.f. Medien- und Kommunikationsbericht der Bundesregierung 2008). Therefore there is a discussion which possibilities do exist in order to keep the wide media landscape alive, e.g. a cultural flatrate paid by all citizens.

Technological Innovations: The most important industrial print methods are sheet and web offset. Digital printing has the largest growth rate and for high circulation rotogravure printing is still important in publication printing, and for special applications like decorative printing. For packaging flexographic printing, offset and gravure are important. For special applications screen and pad printing are used. Personalized print solutions are supported by digital printing (e.g. print on demand books) and large format printings e.g. for outdoor advertising. Quality management (PSO-certification) and integrated Workflows (JDF, Web-to-Print, print specific ERP-systems) improve the cost situation, quality and also reduce lead times. Beside technological innovations management innovations get more and more important like Lean Printing, Business Process Management and Corporate Performance Management.

Packaging and package printing are an increasing market. Packaging does not only have a safety function. It is an important part of a communication concept. Therefore there are high quality requirements concerning printing and ap-

plication fields for new technologies e.g. in the field of finishing. In addition security printing aspects (safety features, protection against forgery, holograms, barcodes, transponders, and printed RFID) become more important in the area of “intelligent packaging”.

Sustainability: Not only paper consumption and production, but the production and logistics chain in total aspects are considered as relevant concerning sustainability and environmental protection. Third party environmental certifications, carbon footprint initiatives and the usage of renewable resources for packaging as well as the realisation of Recycling-concepts are important parts of sustainability concepts.

3.2 Developments from a Chinese Point of View

Economic challenges: China is also affected by the present economic and financial crises. However the chinese media market is growing due to the increasing information need of the citizens. The newspaper market is growing in contrast to the US and Europe. A middle class with purchasing power is developing, and improved transportation possibilities for print products can be used in the country due to the continuously improved infrastructure.

Structural Challenges: The development in China is characterised by incredible dynamics. Examples are changes in legal regulations for the admittance of foreign investors, conversion of state-run companies, the increasing importance of mobile media und the changes in press and publishers’ legal restrictions. There is a

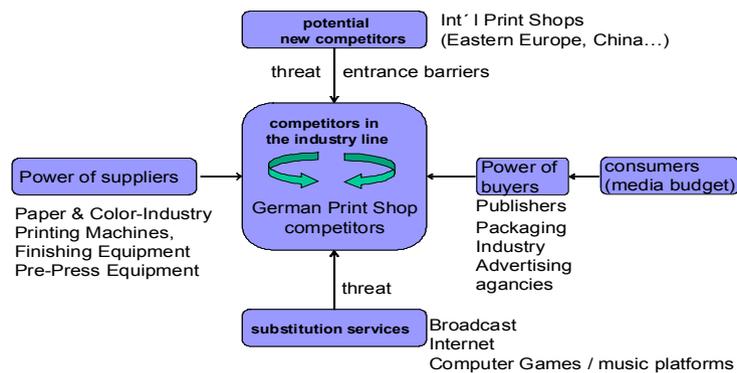
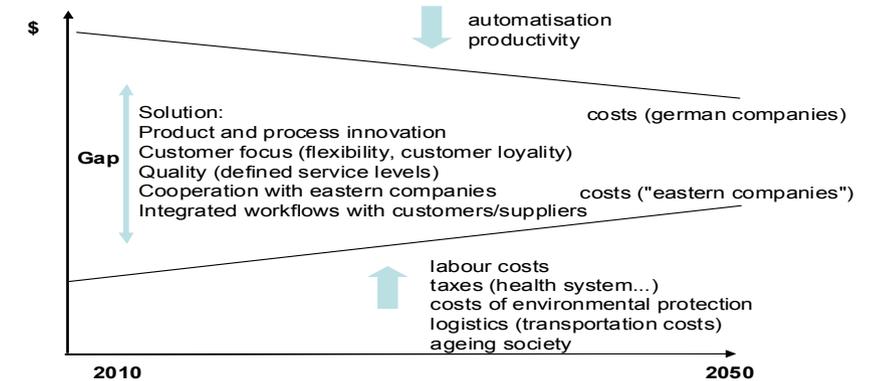


Figure 2: Applying Porter to Printing Industry (c.f. Roos, A. 2008)

Figure 3: Factors for the alignment of eastern and western print shops



strong impact on markets in China through local requirements and competitors. Therefore it is not realistic to use the term “common Chinese market”. In addition it has to be taken into account that the Chinese language area is bigger than the “mainland” China area.

The traditional market dominating state owned printing companies don’t exist any more. An analysis of the Chinese magazine ‘printing manager’ shows that most of the biggest and important companies are WFOE’s or Joint-Ventures.

legal form	Year 2008	Year 2007	Year 2006
JV's and WFOE's	55	54	57
state owned companies	18	20	19
private companies	5	3	9
stock corporations	20	21	12
public owned	2	2	3

Table 3:
Division according the legal structure of the 100 biggest printing companies in China (Source: Printing Manager - China)

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In all emerging countries including China the packaging market is increasing with the large sectors food, beverages, pharmaceutical articles and cosmetics.

For literary publishers it is often necessary to sell copyright royalties for translations to China. It has to be taken into account that publication prices for books are very low and therefore copyright royalties are often low, too. Actually it is not allowed to run private publishing companies. Exceptions are private “cultural companies” or agencies which cooperate with big publishers, e.g. ISBN numbers can only be allocated by publishers (c.f. Kaiser, C., access June 2009). Another possibility is a Joint Venture, but the Chinese share has to be the larger one.

Publishing in China is still controlled by the government. Since China joined the WTO in December 2001 there have been significant changes. In the People’s Republic of China (PRC) there are nearly 600 official state-run publishers mostly centered in Beijing. The “central” publishers belong directly to a governmental organisation in Beijing. The “regional publishers” are often located in the capital cities of the provinces. The ultimate institution for publications in China is the General Administration of Press and Publication (GAPP) in Beijing.

The Chinese state-run publishers will mostly be converted to commercial enterprises in a mid-term period. In 1992 China signed the international copyright accord. The responsible authority for copyright protection is the National Copyright Administration of China (NCAC) (c.f. BIZ, access June 2009).

For the development of the bookselling trade one must note the following: The market opening did happen very quickly in the last few years. The rules for foreign investments in the field of distribution of books, newspapers and magazines from 2003 enable foreign involvements in the retail book-trade. The reason for these measures is the intention to transform the state Xinhua chain of book-stores in all provinces and towns as quick as possible into a stock corporation. Book-trading on the internet is becoming more and more important within the Chinese book-trade (c.f. BIZ, Access June 2009).

China has a strong and increasing advertising market. Pharmaceutical and food industries have the highest expenses seen in percent (c.f. Hongyan, Li 2005).

From a regional point of view publishers are concentrated in the area of Beijing (c.f. Holtbrügge, D.; Puck, J.F. (2008), S. 45) and there are many print shops in the Pearl river area.

Differences can be seen in Marketing: E.g. in the distribution policy (regional differences for transportation). As well as in the product policy, e.g. using elaborate packaging, the various importance of colours and the role of western brandings. In addition in the communication policy, e.g. knowing the symbolism of numbers in the naming of products. Another example is that the belonging to a group is more important than the aspect of uniqueness.

Cultural differences also exist in relationship

to strongly individualistically shaped structures in western countries versus collectivistic shaped structures in China: “survival of the fittest” vs. “survival of those fitting” (c.f. Holtbrügge, D.; Puck, J.F. (2008), S. 39). However changes can be seen through the influence of western economic structures. Primarily younger people show changing decision making and management styles.

Technological Innovations: Due to the large number of cheap working staff there was only little pressure for rationalization in the past. This pressure is increasing more and more. There is still not enough usage of ERP-systems. In addition there are special technical requirements, e.g. the usage of large-format printed advertising or the production of fonts, which consist of up to more than 30.000 characters.

Sustainability: Especially air and water pollution are well-known problems and there are increasing regulations for producers in China.

3.3 Reasons for German-Chinese Cooperations

German-Chinese relationships in the field of media are getting increasing attention, e.g. China is Guest of Honour at the Frankfurt Book Fair and Germany will be the Guest of Honour at the Book Fair in Beijing in the same year.

Reasons for cooperations from the Chinese point of view are to learn from German technology, e.g. printing machinery equipment, or to get access to literature in the field of technology, software and science. In addition to this in the past there were strong needs for financial investments, actually there are investments the other way round too (Chinese government fund investments in Europe).

Another reason from a the german point of view is the access to a large market. But also because of mixed calculations (production plants in China and Germany) which allow not only access to the Chinese market, but the stabilisation of German locations.

Good long termed chances can be realized from the fact that the use of printed in BRIC-countries (Brasil, Russia, India, China) is much less than in high industrialised nations. A new middle class with China with increasing average income enables this class to increasing media usage.

Tables 4 and 5 showing typical products and services for German-Chinese cooperations.

Table 4: Products for cooperative enterprises and wholly foreign owned enterprises of German companies in China: Publishers and Print shops

Production in		
Germany	Content Production: authors write in Germany (copyright to China)	no examples, because products are e.g. time-critical products like newspapers
China	media productions: (translated) German scientific/technical literature for China	China as a procurement market: non time-critical products, more and more high-end print products (packaging, books, annual reports), labour-intensive print products (children's books)
	China	Germany
Selling in		

Table 5: Products for cooperative enterprises and wholly foreign owned enterprises of German companies in China: Suppliers of Printing Industry

Production in		
Germany	High-End machinery equipment	-
China	Assembly in Joint Ventures in China (advantage of western brandings and technology leadership), combined with local market know how	Low price selling for Chinese manufacturers. Dangerous for high-value brandings of German companies.
	China	Germany
Selling in		

4. Types of Co-operations

This chapter will focus on German-Chinese co-operations in China started by a German partner. Which co-operations are successful? There are different possibilities:

- the co-operation leads to market access
- wellknown branding in a foreign country
- being part of the economic success of the parent companies,
- access to technologies or content (for publishers)

depending on the reasons for co-operations mentioned in the chapter before. In general for all co-operations there are political, economic, socio-cultural, technological requirements and

restrictions (PEST-analysis), which have to be taken into account.

Not all co-operations are successful. In general co-operations are medium to long term, controlled team works of independent companies for a collaborative fulfillments of tasks. In other words a common target is assumed. Potential problems arise from this when the partners only follow aims of their own, i.e. getting access to customers or know how transfer. In a narrower sense only Joint Ventures can therefore be understood as co-operations, not Franchising-models, combined groups ("Verbundgruppen") or associate companies abroad. However the term cooperation should not be reduced to a legal understanding. The branch of a German enterprise in China with Chinese employ-

ees and managers, embedded in Chinese supplier structures and producing for the Chinese market (which are adapted to Chinese requirements) is in spite of a German owner-structure and technology surely a form of cooperation. Therefore we define German-Chinese co-operations as a medium to long-term, controlled team work of at least one German company embedded in a Chinese environment of regulations, culture, workers, customers, suppliers or partner companies for a collaborative fulfilment of tasks. Possible success factors are:

Location Factor

In the field of printing industries different location factors have to be analysed:

- logistical aspects (transportation infrastructure, i.e. traffic problems in the big cities and access problems to small towns by trucks)
- subventions and governmental support (special economic areas, customs policy), political stability, legal security (contract law, tax law, employment law, employee participation),
- protection of Intellectual Property,
- the availability of staff, using staff in a foreign country and repatriation, partially high fluctuation being a problem in China, and
- predictable financial constraints (changes in currency exchange rates).

Chinas policy is to create independent know-how, not only to be a market for foreign products. Education, therefore, is of high importance. In the field of publishing and journalism as well as in technical education for the supplier industry China has a number of study programmes, e.g. at universities in Xi'an, Beijing, Shanghai, Shenzhen and Wuhan, as well as R&D organisations (e.g. China Academy of Printing Technology in Beijing).

Market Access and Value Creation

China is in cooperative enterprises a potential procurement market, a business market und a production site. One important aspect is the market access, which is quite difficult without cooperative structures due to cultural characteristics, local markets inside China and difficult information research. Production in China allows high value creation due to low labour costs and

environmental standards. In addition the growth rates in Chinese media markets are high. The growth is very limited on the German/European market.

More and more R&D is possible in China to adapt products to special local needs. Depending on increasing quality it will be possible for plants in China to buy parts and components from Chinese suppliers instead of using components from other German/European producers in China or importing components.

Possible legal forms of organisations

Important possible legal forms of organisations of German Companies in China are (c.f. Wolf, L.-C., 2005):

The Equity Joint Venture. It is a limited company (Chinese law), founded by a Chinese and a foreign enterprise. Profit and loss of an Equity Joint Venture are shared by the partners based on their equity. There are some restrictions e.g. concerning selling shares.

The Cooperative Joint Venture: Partners are free to define their shares independent of investments into the company. For example the Chinese partner could bring in market know-how and the German partner know-how and capital. The partners are free to define e.g. the quota of profit and sharing of risks in a contractual base.

Wholly Foreign-Owned Enterprise: These are societies with restricted liabilities (following Chinese law), founded by foreign companies in China and being totally owned by the foreign company. Establishing such an enterprise has some constraints: it is necessary that there is a benefit to the successful development of the Chinese economy. If the enterprise wants to sell products on the Chinese market it has to prove that up-to-date and progressive production technologies are used, otherwise the enterprise is only allowed to produce for exports.

Further possibilities are contractual co-operations based on the Contractual Joint Venture law and stock corporations with foreign capital, which are very complex during the establishing phase, or license agreements (publishers) or franchising (c.f. Holtbrügge, D.; Puck, J.F. 2008).

Change Management and Cultural Barriers

Building cooperative organisations questions of language barriers, motivation of the staff, qualification and loyalty have to be solved. The way of decision making processes is very different, too. "Guanxi", the network of personal relationships, which have strong impact on decisions in China, are an important example for such differences.

5. Conclusions

The German view in German-Chinese co-operations in the print media sector is somewhere between cloning technology fear and greed (billion-dollar-market). These co-operations are of great importance for both countries. Because of the challenging changes in China there are very different success stories and flops.

Because of the high importance and special requirements of the Chinese and German Print markets it is necessary to do more detailed empiric researches, shown on the success factors mentioned in this article. TU Xi'an und Hochschule der Medien therefore will do more research in this topics.

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¹⁾ Hongzhen Diao currently is working on her dissertation at the TU Xi'an in co-operation with Stuttgart Media University. Her work is supervised by Prof. Dr. Suicheng Li and Prof. Dr. Alexander W. Ross.

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