

Collaborative Relationships in the UK Upstream Oil and Gas Industry: Critical Success and Failure Factors

SM Mamotazul Haque, Richard Green, William Keogh¹

Abstract: Contributing £165.8 billion to the UK economy since 1964/65 and with 270,000 jobs directly or indirectly depending on it (DTI, 2000), the oil and gas industry is very important to the UK economy. In the early 1990s the industry faced an economic crisis. It was recognised that by working together rather than having ‘traditional’ adversarial relationships that the industry could lower costs, achieve success and increase its chances of survival (Bower and Keogh, 1997).

Since 1990, the key industry players have adopted alliance and partnering strategies (Green and Keogh, 2000). Although there is number of success stories, there have also been failures. This paper presents results from an industry survey conducted in 1999. The purpose of the study was to gather the oil and gas industry’s views on critical success and failure factors of alliance and partnering agreements.

The data have been analysed by use of combination of quantitative and qualitative techniques. The study shows that ‘presence of trusting attitude’ is perceived as the most important critical success factor in the UK oil and gas industry. Some of the other perceived important success factors are ‘shared and aligned goals’, ‘commitment’, ‘supportive and open behaviour’, and ‘honesty’. The study also suggests that in the UK oil and gas industry, ‘absence of shared aligned goals’, ‘absence of clear targets’, ‘absence of trusting attitudes’, ‘absence of fair allocation of risk and reward’, ‘absence of commitment’ and ‘presence of adversarial behaviour’ are viewed as the main factors which often cause failure of alliances and partnering.

Keywords: Collaborative relationships, UK oil and gas industry, success factors, failure factors, trust.

Introduction

The oil and gas industry is of great importance to the UK economy. Since 1964/65, the UK Government has received a total of £165.8 billion from the industry in taxes and royalties. The industry also has a great impact on employment, some 27,000 people are employed by the offshore industry, and some 270,000 jobs depend directly or indirectly on the oil and gas industry (DTI, 2000). In the early 1990s the industry faced an economic crisis because of falling oil prices. For sustainable development of the industry it became very important to reduce the costs and develop new technology (Bower & Young, 1995). Among different initiatives, there was recognition that by working together rather than having traditional adversarial relationships with other companies, the UK oil industry could lower its costs and increase its chances of long term survival. Since 1990 many of the industry players have adopted alliances and partnering strategies, and several alliances have been created in the UK upstream oil and gas industry (Green and Keogh, 2000).

During the last ten years the industry has experienced different kinds and types of alliances depending on the purpose and scope of the projects. Some alliances have been terminated when the shared aim has been completed. On occasions, some members of a development alliance have remained in place to form the basis of an operational alliance. Among these alliances there is a number of highly successful ones e.g. development of the Andrew field facility (Knott, 1996).

¹SM Mamotazul Haque, MBA, Research Student, Aberdeen Business School, Robert Gordon University, Aberdeen, AB15 7AW. Phone: 01224 263116 E-mail: m.haque@rgu.ac.uk

Richard L. Green, PhD, Senior Research Fellow, Aberdeen Business School,

Robert Gordon University, Aberdeen, AB15 7AW. Phone: 01224 263105, Email: r.green@rgu.ac.uk

Professor William B. Keogh, TRS, Heriot Watt University, Edinburgh, EH14 4AS. Phone: 01314518284, Email: w.keogh@hw.ac.uk

But there are also occasions when an alliance in the North Sea Industry has been terminated before it has run its term, and therefore could be said to have failed.

However it has been suggested that, in general, alliances in the UK oil and gas industry have gained considerable success. Green and Keogh (2000) suggest that the majority of the oil and gas companies and their contractors now embrace, at least partially, a more collaborative style of working. Furthermore, Segal Quince Wicksteed Ltd (1997), after surveying the Small and Medium Enterprises in the UK oil industry, concluded that "Alliancing is here to stay and is broadly welcomed by operators and contractors."

Now the questions may be raised as to how the success and failure of alliances have been measured in the UK oil and gas industry? What are the factors that enable success or are barriers to success? To what extent have success or failure factors been present in alliances in the UK upstream oil and gas industry?

Little academic research appears to have been carried out to answer these questions for the oil and gas industry. The literature review shows that many articles have been written on collaborative relationships. Most of those papers however are based on theory, and very few or no empirical data are available on perceived critical success and failure factors of alliancing and partnering in the UK oil and gas industry. Thus the aim of the research on which this paper is based was to identify criteria of success and failure of alliancing and partnering in the UK oil and gas industry.

Methodology

A self-administered questionnaire was used to collect information from a selected sample from the industry. It was recognised that both qualitative and quantitative data were needed for a comprehensive study. Qualitative and quantitative techniques were used to complement each other.

The Sample and Data collection

The purpose of the study was to obtain opinions of people in the UK oil and gas industry about alliancing and partnering. Hence the population was the people who had a stake in the UK oil and gas industry i.e. operators, contractors, consultants, businessmen, and others. The sample was drawn from three different groups of people from the population i.e. the participants at Offshore-Europe Exhibition '99, the CRINE champions group and people at supervisory level or below who attended courses at the Robert Gordon Institute of Technology (RGIT).

Offshore Europe '99, a biennial oil & gas exhibition and conference took place in Aberdeen from 7-10 September 1999. Some 1800 exhibitors from the oil and gas industry exhibited their products. About 24000 people including delegates, professionals, oil and gas business people and others who have interest in the oil and gas industry took part in the exhibition. A simple random sampling method was used to select the sample from the exhibition. There were some 1500 stands in the exhibition of which 300 stands were selected at random. 400 questionnaires were distributed by hand to the delegates, visitors and at the exhibitors' stands. 55 completed questionnaires were received from the 400 randomly distributed questionnaires.

Other than the Offshore Europe exhibition, a survey was also conducted among the CRINE (Cost Reduction Initiative for the New Era) champions group. CRINE was an industry-working group which attempted to introduce different standards with a purpose to reduce costs of the industry. The CRINE champions group is the people who volunteered to promote CRINE and its principles. The CRINE champions group was taken as a sampling frame, because it was recognised that they would be able to share their valuable knowledge on collaborative relationships. Three hundred names of CRINE champions were collected from the CRINE web site. From the group two hundred individuals were selected for the survey at random and questionnaires were sent to them by post. From the CRINE champions' group 32 completed questionnaires were received.

Another survey was also conducted among the oil industry workers at supervisory level or below who attended safety training courses at the RGIT, Aberdeen, UK, from September 1999 to January 2000. Around ten to fifteen trainees attended each course and they worked in different types and sizes of companies in the oil and gas industry. It was recognised that they would provide a sampling frame representing the shop floor level people from the industry. In total 60 questionnaires were distributed among four groups of trainees by hand, and 17 completed questionnaires were received from those groups.

Data Analysis

Mainly qualitative data was collected by the study. Content analysis method was used to analyse qualitative data. Analysis of the qualitative data began with the familiarisation and understanding of response texts. During the process of data entry each response text was studied carefully and thoroughly in order to become familiar with it and to grasp the underlying meaning. This was followed by development of concepts. Each concept was given a unique code number to facilitate the analysis of the data. Concepts were managed and analysed by Microsoft Access database, and Microsoft EXCEL spreadsheets.

Results and discussion

Respondents

In total 99 completed questionnaires were returned from the 560 potential respondents which made 18% return rate for the survey. Out of the 99 respondents 66 % were contractors/suppliers, 24% operators and 10% were others, which included consultants, fabricators, trade associations, manufacturers, and service companies. In terms of working positions, the respondents were categorised into three groups, Senior Management (SM), Middle Management (MM), and Supervisors and Below (SB). The analysis shows that 28 % of the respondents belong to SM 47 % to the MM group and 7 % to the SB below level, and 17 % of the respondents did not reveal their job title. It should be pointed out that although the respondents were divided into three groups, the number of responses from the people at supervisory level or below was few and they are discarded from the analysis and discussion.

Critical Success Factors (CSF) of Alliances and Partnering

In order to gather data on people's perceptions of the CSF of alliancing and partnering in the UK oil and gas industry, respondents were asked to list as many as six critical success factors according to their priority. The 99 respondents put forward 308 ideas on CSF. However, many ideas had similar sense but different wording. After thoughtful analysis the 308 ideas were captured by 69 concepts. The concepts were analysed to give the frequency of their citation. The data were analysed by total response as well as by respondents' company type and their working levels. Table 1 shows the overall top ten frequently mentioned concepts for critical success factors. These concepts account for 55% of the total responses.

Overall opinion on critical success factors

The analysis of the data indicates that, in general, 'trusting attitudes/behaviour' is perceived to be the most important critical success factor for alliancing and partnering in the UK oil and gas industry (see Table 1). The second most popular critical success factor is 'shared and aligned goals' which are followed by 'presence of open behaviour' and 'presence of shared knowledge'. 'Clear role', 'commitment of members to the relationship', 'co-operative behaviour' and 'honesty', all have similar ranking. The last two of the aforementioned ten critical success factors are 'integrated team' and 'early involvement of the people'. The results reflect the opinions of many social scientists who have suggested theories on success of collaborative relationships. For example, trust is viewed as central to all collaborative relationship and it is said that no alli-

ance can survive without trust (Spekman, 1988, Ford, 1990; Sherman, 1992; Wolff, 1994; Parkhi, 1998, Vangen, and Huxham, 1998).

Table 1

Critical success factors – by total responses

SL No	Critical success factors mentioned by all respondents (Number of responses =308)	Percent of responses
1	Presence of Trusting attitude/behaviour is a Success factor	15%
2	Presence of Shared and aligned goals, objectives or targets is a Success factor	7%
3	Presence of Open behaviour is a Success factor	6%
4	Presence of Shared knowledge and/or information is a Success factor	5%
5	Presence of Clear roles within relationship is a Success factor	4%
6	Presence of Commitment of members to relationship and its success is a Success factor	4%
7	Presence of Co-operative (and supportive) behaviour is a Success factor	4%
8	Presence of Openness , Honesty, Integrity and/or Sincerity is a Success factor	4%
9	Presence of Integrated team, without inter-company boundaries is a Success factor	3%
10	Presence of Involvement (including early involvement) of people who can influence the outcome is a Success factor	3%

Ellram (1995) and Lewis (1992) emphasise the importance of a clear and agreed set of goals which allow the partners to be clear about why the collaboration exists, why they are part of it and what their role is within it. Regarding commitment Green and Keogh (2000) suggest senior management of all the companies involved in the collaborative relationships must be committed to the relationship and be prepared to do whatever is necessary to ensure its success. Many authors (Ellram and Eddis, 1996; Huxham and Vangen, 1996; Haque et al, 2000; Green and Keogh, 1998) stressed the role of shared goal, frequent open communication and integrated team in effective relationships.

Some success factors mentioned in the literature (e.g. no-blame culture, training, use of external facilitator, 'change of attitude' 'sufficient resources' 'past experience of collaboration management') do not appear in the top ten factors from this survey.

Opinion of different type of companies on critical success factors

Analysis from the standpoint of company types shows that respondents from contractors/suppliers and other types of companies believe that 'trusting attitude' is the most important critical success factor. However, respondents from operators suggest that 'shared and aligned goals' is the most important factor which is followed by 'trusting attitude'. The analysis also shows that, 'open behaviour', 'clear role', 'commitment of members' is other preferred critical success factors for all groups. However, 'early involvement of people who can influence the outcome' is more preferred by contractors/suppliers group than by operators and other groups. Again respondents from operators believe that 'understanding of others capabilities' is an important critical success factor.

Opinion of people at different working levels on critical success factors

Responses were analysed from the standpoint of respondents' job category. The following five factors are common to the top ten for senior and middle managers: 'presence of trusting attitude/behaviour', 'presence of shared and aligned goals', 'presence of open behaviour', 'presence of openness and honesty' and 'presence of an integrated team'. 'Trust' is the most highly rated factor by both job groups. Senior managers include the following success factors, which are not highly rated by the middle managers: 'commitment', 'involvement of people who can influence the outcome', 'clear written contract', 'clear goals', and 'shared benefits'. Middle managers alone

include the following: 'shared knowledge and information', 'co-operative behaviour', 'clear role', 'strong leadership' and 'shared responsibility'. As middle managers are nearer to the work force they might be expected to emphasise the communication implied by 'shared knowledge and information' and the importance of co-operative behaviour' within the work force.

Factors Which Can Cause Failure of Alliancing and Partnering

Another purpose of the survey was to gather people's views on the factors which may cause failure of alliances and partnering in the oil and gas industry. Therefore respondents were requested to list as many as six factors according to their priority, which often cause failure. The 99 respondents provided 250 ideas on failure factors. All the 250 ideas about critical failure factors were captured by 58 different concepts. The data (concepts) were analysed depending on the frequency of their use by the respondents.

General opinion on failure factor

The analysis of the responses is shown in Table 2. The top ten concepts represent 58% of the responses which indicate their importance as criteria of failure of alliancing and partnering.

Table 2

Failure factors in general

SL No	Factors which cause failure of Alliances (Number of responses = 250)	Percent responses
1	Absence of Shared and aligned goals, objectives or targets is a Failure factor	11%
2	Absence of Clear and/or consistent goals, objectives or targets is a Failure factor	8%
3	Absence of Trusting attitude/behaviour is a Failure factor	8%
4	Absence of Open and unhindered communication is a Failure factor	7%
5	Presence of Culture differences which are not addressed is a Failure factor	6%
6	Absence of Leadership (strong and proactive) from senior managers is a Failure factor	5%
7	Presence of Adversarial behaviour, non co-operation and/or conflict (including litigation) is a Failure factor	4%
8	Absence of Fair allocation of risks, rewards and profits is a Failure factor	4%
9	Absence of Open behaviour and willingness to change is a Failure factor	3%
10	Absence of Commitment of members to relationship and its success is a Failure factor	2%

'Absence of shared and align goals, objectives or targets' is the highest rated failure factor and 'absence of clear and consistent goals, objectives and targets' is the second highest failure factor of alliances and partnering. These are followed by 'absence of trusting attitude', and 'absence of open communication' 'Presence of un-addressed cultural differences' and 'absence of strong proactive leadership' are ranked fifth and sixth among the top ten failure factors. 'Presence of adversarial behaviour, non co-operation, and conflict' and 'absence of fair allocation of risks and rewards' 'unwillingness to accept change' and 'absence of commitment' complete the top ten failure factors. It is interesting to note that although 'presence of trust' is ranked high as success factor, 'absence of trust' has been placed in the third position as a failure factor. Again some failure factors such as 'absence of leadership', 'absence of fair allocation of risks rewards and profits', 'presence of cultural differences', 'absence of willingness to change' are rated high, whereas the corresponding success factors have not been ranked highly by the respondents.

It should be mentioned that the literature often suggests success factors for alliances and partnering, but very little has been written on failure factors. It is possible that failure factors can be regarded as the absence or opposite of the corresponding success factors. However the present study shows that it is not always the case. Some factors are ranked high as failure ones, but the corresponding success factors are either not mentioned or ranked low. In the respondents' percep-

tion there are some factors whose absence may cause failure of collaborative relationships. However, the presence of those factors will not necessarily bring success.

Opinion of people working at different levels on failure factors

Failure factors were analysed from the viewpoint of respondents' job category. Although there are some differences in opinions among the people working at different levels, there are also many common views. Respondents from both Senior Managers and Middle Managers groups perceive that 'absence of trust', 'absence of clear role', 'absence of open communication', 'absence of leadership', 'absence of shared goal', 'presence of unresolved cultural differences' and 'adversarial behaviour' are the important failure factors of alliancing and partnering. 'Absence of clear and consistent goal' is ranked second by both senior and middle managers. Senior managers consider 'absence of trusting attitude' as the most important failure factor, whereas middle managers suggest 'absence of shared and aligned goals' is the most important. Only senior managers perceive 'absence of commitment of members' and 'reversion to adversarial custom and practice' as failure factors and only middle managers perceive 'absence of commitment of management' as a failure factor.

Opinion of different type of companies on failure factors

Analysis from the standpoint of company types shows that contractors/suppliers and operators have more or less the same opinion on the failure factors of alliancing and partnering. Their responses indicate that 'absence of shared and aligned goal' is the most important failure factor and both the groups suggest that 'absence of clear and consistent goal' is the second most important failure factor. The 'other' group considers 'absence of leadership' as the most important failure factor. However, other than the 'leadership' factor, this group's opinions are in line with those of contractors and operators. All the three groups consider that 'absence of clear role', 'absence of trusting attitude', 'absence of unhindered communication', and 'absence of fair allocation of risk and reward' are the major failure factors of alliances and partnering the UK oil and gas industry.

Conclusion

This survey, conducted in the last quarter of 1999 with a representative sample of people from the UK oil and gas industry, provides useful information on distinguishing features, success factors and factors which cause failure of alliancing and partnering in the UK oil and gas industry. Open questions were used to gather data for the survey. The respondents put forward their own opinions without prompting from the questionnaire and this has made the study different from many previous studies. The study provides useful insights into the similarities and differences in perceptions of critical success and failure factors of alliances and partnering in different types of companies, and people at different working levels.

The survey suggests that the people in the UK oil and gas industry generally perceive the 'presence of trusting attitudes/behaviour' as the most important critical success factor for alliancing and partnering in the industry. Many authors have also emphasised the importance of trust as a success factor in collaborative relationships. Some of the other perceived important success factors are 'shared and aligned goals', 'presence of open behaviour', 'presence of shared knowledge', 'clear role', 'commitment of members to relationship', 'co-operative behaviour' and 'honesty'.

All types of companies i.e. operators, contractors and others perceive that 'presence of trusting attitudes', 'aligned goals', 'openness', 'co-operative behaviour', 'shared knowledge' are critical to make alliances successful. Other than those factors, operators believe that 'understanding of others' capabilities' is an important critical success factor. However the contractors/suppliers group emphasise 'early involvement of people in the alliance team'. Contractors probably hold this view because they believe that by being involved at the early stage of a project they can have more influence on its success.

People at different working levels all consider 'presence of trusting attitude' and 'presence of shared goal' as important success factors. 'Presence of shared knowledge' is also impor-

tant for middle managers'. However senior managers do not rank it highly as a critical success factor. Presumably middle managers and people at supervisory level or below are more directly involved at the front line activities of an alliancing and partnering project, and they find it hard to work with other alliance groups without sufficient information and knowledge.

It should be noted that some factors which have been mentioned in the literature as success factors e.g. 'no-blame culture', 'training', 'use of external facilitator', 'change of attitude', 'sufficient resources' 'past experience of collaboration management' and 'choice of partners' are not ranked highly for making alliances successful by people in the oil and gas industry. Again, some of the factors which have been suggested by the respondents as important success factors e.g. 'shared knowledge'; 'co-operative behaviour' 'early involvement of people' are not common in the literature on oil and gas industry.

The study suggests that in the UK oil and gas industry, 'absence of shared aligned goals', 'absence of clear targets', 'absence of trusting attitudes', 'absence of unhindered communication', 'absence of leadership', 'absence of fair allocation of risk and reward', 'absence of commitment' 'presence of unaddressed cultural differences' and 'adversarial behaviour', are perceived as the main factors which often cause failure of alliances and partnering. It may be mentioned that although much has been written on success factors of alliances and partnering, very little has been written on failure factors. It is possible that the absence or opposite of the 'success factors' can be deemed as failure factors. However, the present study shows that it is not always the case. Some factors are ranked high as failure ones, whereas the corresponding success factors are either not mentioned or are ranked low. For example, although 'presence of trust' is the most important success factor, 'absence of trust' has not been placed at the top position as a failure factor. Again some failure factors have been identified, such as 'absence of leadership', 'absence of fair allocation of risks rewards and profits', 'presence of non-addressed cultural differences' and 'absence of willingness to change' where the corresponding success factor has not been highly ranked by respondents. This indicates there are some factors absence of which may cause failure of collaborative relationships; however, presence of those factors will not necessarily bring success.

References

1. Bower, D. J. and Keogh, W. Conflict and co-operation in technology-based alliances// *International Journal of Innovation Management*, 1997, Vol. 1, No. 4 pp. 387-409.
2. Bower, D. J. and Young, A. Influences on technology strategy in the UK oil and gas-related industry network// *Technology Analysis and Strategic Management*, 1995, Vol. 7, No. 4, pp. 407-416.
3. DTI, Development of UK oil and gas resources, HMSO, London, 2000.
4. Ellram, L. M. Partnering pitfalls and success factors// *International Journal of Purchasing and Materials Management*, Spring 1995, Vol. 31, No. 2, pp 6-15.
5. Ellram, L.M. and Edis, O.R. A case study of successful partnering implementation// *International Journal of Purchasing and Materials Management*, 1996, Vol. 32, No. 4, pp. 20-29.
6. Ford, D. Understanding Business Markets: Interaction, relationships, and networks, Academic Press London, 1990.
7. Green, R.L. and Keogh, W. Collaboration in the UK Upstream Oil and Gas Industry Five Years ON, Presented at Fifth International Conference on Multi-Organisational Partnerships and Co-operative Strategy, Balliol College, Oxford 6-8 July 1998.
8. Green, R.L. and Keogh, W. Five Years of Collaboration in the UK Upstream Oil and Gas Industry// *Strategic Change*, June-July 2000.
9. Haque, S.M.M., Green, R, and Keogh, W. Issues in the success or failure of strategic alliances: Some evidence from the literature, focusing on the UK upstream oil and gas industry, Research paper series number- ABS/1999/002, Robert Gordon University, UK, 2000.

10. Huxham, C. and Vangen, S. Working together: Key themes in the management of relationships between public and non-profit organisation// *International Journal of Public Sectors Management*, 1996, Vol. 9, pp. 5-17.
11. Knott, T. No business as usual, *The British Petroleum Company plc*, UK, 1996.
12. Lewis, J.D. The new power of strategic alliances, *Planning Review*, Special Issue, Sept-Oct 1992, pp.4.
13. Parkhi, A. Understanding trust in international alliances// *Journal of world business*, 1998, vol. 33, no. 3, pp. 219-240.
14. Segal Quince Wicksteed Ltd. *Improving SME Supply Relationships in the UK Oil and Gas Industry* OSO: Glasgow, 1997.
15. Sharman, S. Are strategic alliances working?// *Fortune*, September 21, 1992, pp.77-78.
16. Spekman, R.E. Strategic supplier selection: Understanding long-term buyer relationship, *Business Horizon*, July- August, 1998. pp. 75-81.
17. UKOOA. *Cost Reduction Initiative for the New Era Report*, CRINE Secretariat St. Paul's Press, London, UK, 1993.
18. Vangen, S. and Huxham, C. The role of trust in the achievement of collaborative advantage, Paper presented to the Fifth International Conference on Multi organisational Partnerships and Co-operative Strategy. Oxford, July 1998.
19. Wolfe, M.F. Building trust in alliances, *Research technology management*, Vol. 37, Issue June, 1994, pp.12-15.