

# DETERMINATION

## Methodology for Determining Market Power

# Methodology for Determining Market Power

A Determination issued by the Telecommunications  
Regulatory Authority  
19 April 2003

**Purpose:** Determination of the approach TRA will use to determine Dominance and Significant Market Power (SMP) in relevant telecommunications markets in Bahrain.



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### 1 Introduction

The Bahraini primary legislation (Legislative Decree No. 48 of 2002 promulgating the Telecommunications Law) provides a definition of Dominance and SMP, but leaves it to the TRA to determine the precise methodology and criteria it will employ in determining whether a licensee has Dominance or SMP. This determination has been prepared following the publication of a consultation paper<sup>1</sup>, the receipt of replies to that paper, and TRA's consideration of those replies.

This determination is issued pursuant to sections 3, 57, 58 and 64 of the Telecommunications Law on Interconnection and Access, Tariffs for Telecommunications Services and Universal Service.

It sets out the approach the TRA will use to determine whether a licensee has either Dominance<sup>2</sup> or Significant Market Power (SMP) in specific telecommunications markets in Bahrain.

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<sup>1</sup> This document is available on the TRA's website.

<sup>2</sup> Where used, the term 'dominance' carries the same meaning as the term 'dominant position' as defined in the Telecommunications Law

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### 2 Background

This section of the document describes the background to the requirement to determine dominance or SMP for operators in Bahrain.

In general, the regulatory process will follow the steps outlined below:

- 1) The TRA will define relevant telecommunications markets that may be considered for the application of some form of regulation;
- 2) The TRA will investigate whether the market is sufficiently competitive or expected to become so in the near to medium term such that any regulatory intervention would be unwarranted, by undertaking a market dominance/significant market power analysis.
- 3) If the market is not likely to become effectively competitive then the TRA will identify which operator or operators are dominant or have significant market power in a relevant market or markets.
- 4) The TRA will then identify the most appropriate regulatory measures to apply. It is possible that regulatory measure would be targeted at another market than that where the results of the market failure are most apparent, especially upstream bottleneck markets.
- 5) The TRA will define appropriate regulatory instruments and quantify any direct measures that that will be employed.

The overall objective of the TRA in undertaking this process will be to enhance long-term user and consumer benefits in terms of choice, price and quality by encouraging competition in the supply of services.

As a general principle the TRA's position is that it will only apply regulation to retail markets where regulation of the relevant wholesale/interconnect markets would not prove to be sufficient to achieve the desired goals in the timescales required.

At the beginning of the liberalisation process it is clear that, for almost all services and products in the telecommunications sector, the ex-incumbent monopoly supplier Batelco will be the sole supplier and therefore in a position of considerable market power. The TRA will need to balance the application of regulatory measures early on which can have as one of their affects making future entry new entry less attractive, and the need for reductions in average prices and improvements in service quality.

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### 3 Definitions and interpretations of ‘Significant Market Power’ and ‘Dominance’

#### 3.1 Definitions

Definitions of these two regulatory terms are included in the Telecommunications Law as follows:

- “**Dominant position**”: the Licensee’s position of economic power that enables it to prevent the existence and continuation of effective competition in the relevant market through the ability of the Licensee to act independently – to a material extent – of competitors, subscribers and users.
- “**An operator with significant market power**”: a licensed operator which holds twenty-five percent or more of the market share of the relevant market as determined from time to time by the TRA.
- When determining whether dominance or SMP exists, the TRA will take into consideration the ability of a licensed operator to influence market conditions, and factors that can help provide an answer to this question have been included in the annex to this Determination. According the Law it is conceivable that the TRA may determine that a licensed operator has significant market power even if the operator holds a share of less than twenty-five percent of the market. The TRA may also determine that an operator / service provider does not have significant power even though it holds more than twenty-five percent of the market.

In the law the term ‘dominant position’ has been used to trigger a number of obligations relating to the provision of interconnection and access on respective licensees and ‘significant market power’ has been used to trigger obligations relating to retail tariff controls and universal service obligations.

#### 3.2 Interpretations

The TRA has the obligation to determine the exact circumstance in which a licensee is deemed to have a dominant position or significant market power.

In the Telecommunications Law the definitions have the following relevance:

- (i) A licensee that is determined to be dominant in a relevant market can be required by the TRA to file a reference interconnection offer. It can also be required to provide fair and non-discriminatory access to certain facilities or services where it is considered uneconomic for competitors to provide these themselves.

In this connection *access* is defined as:

the making available of telecommunications facilities and/or telecommunications services to another licensed operator for the purpose of providing telecommunications services, and including the connection of equipment by wire or wireless means, access to physical infrastructure

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including buildings, ducts and masts, access to mobile networks and access to number translation or networks offering equivalent functionality;

*Interconnection* is defined as:

the physical and logical linking of telecommunications networks used by the same or a different organisation in order to allow the users of one organisation to communicate with users of the same or another organisation, or to access services provided by another organisation.

*A reference interconnect offer* is defined as:

A published reference document that sets out the full list of basic interconnect services and the terms and conditions, including charges, on which the licensee offers to interconnect with other licensees. The offer forms the basis of commercial negotiations between licensees to establish interconnect.

- (ii) A licensee that is determined to have SMP may be subject to price regulation or a universal service obligation.
- (iii) Whether or not a licensee is determined to be dominant or to have SMP, it will be subject to the provisions relating to anti-competitive conduct set forth in section 65 of the Law.

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### 4 Future application of regulatory mechanisms

#### 4.1 Discretion

The Telecommunications Law provides the TRA with discretionary powers in the way it addresses dominance and SMP. The TRA considers that regulatory forbearance will be relevant in some cases, even though its investigation shows an entity to be dominant or to have SMP. One of the main reasons for this is because the market definition and dominance / SMP investigation will sometimes suggest that regulation may be warranted, although when looked at outside of the normal time frame for market analysis, entry / competing investment is thought likely to occur. Reasons for a longer time frame of analysis to be adopted are likely to include at least one of the following:

- Long lead times for entry and investment in newly liberalised telecommunications industries;
- Entry and investment delays caused by uncertainty regarding regulatory developments, and
- The perceived risk that an expected new technology will replace existing business solutions.

Largely for these reasons, the TRA views a finding of dominance or SMP in a relevant market as a necessary but not sufficient condition for the TRA to regulate the relevant markets.

#### 4.2 Periodic Reviews

The TRA intends to review its determinations of dominance or SMP and relevant telecommunications markets within 2 years from the date of any determination. However, in some cases market conditions may change quite significantly at the time of full liberalisation in July 2004, and where these include some of the markets the TRA has identified, the TRA will need to redefine these markets.

In regard to other markets, if in the TRA's opinion, market circumstances suggest that an earlier review would be appropriate, or if a market player or other such interested party should present a compelling case for an earlier review, then the TRA will be prepared to consider a review less than two years after a determination. Reviews will help the TRA in determining how competition is developing and the extent to which it is meeting the overall objectives of choice, quality and providing value for end-users in Bahrain.

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### 5 Criteria for assessment of market power

Criteria employed in assessing dominance or SMP are based around factors that help explain whether an undertaking or organisation can act independently of any rivals. A large number of criteria may be used and the main ones include the following:

- Market share
- Overall size of Undertaking
- Control of infrastructure not easily duplicated
- Network effects
- The conduct of the participants
- Technological advantages or superiority
- Absence of or low countervailing buying power
- Easy or privileged access to capital markets/financial resources
- Product/services diversification (e.g. bundled products or services)
- Economies of scale
- Economies of scope
- Vertical integration
- Highly developed distribution and sales network
- Absence of potential competition
- Barriers to expansion
- Ease of market entry

A dominant position may arise from any combination of any these criteria, which, if taken individually might not be sufficient to determine dominance. Indeed, some of the points outlined above are not suitable indicators of market power themselves, but may have importance through other factors, such as when the TRA is looking into the rationale or viability of certain types of strategic behaviour. Because of the complex nature of strategies that firms with market power may adopt, the TRA cannot reject such factors from its list of potentially relevant information.

The criteria are described in further detail in Annex 1.



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### A1 Annex 1 Discussion of detailed criteria

This annex provides information regarding a non exhaustive range of criteria that may be used to assess whether a company has dominance or SMP in a specific market. The criteria are discussed below in two sections; first, criteria that may be used to assess the dominance or otherwise of a single market player, and second, additional criteria that also may be useful in assessing dominance.

#### A1.1 Criteria for assessing single dominance

Criterion	Implication for assessment of market power
Market shares	<p>Market shares are well recognised as providing an initial indication of whether a firm has market power. Over a particular level of market share there is an increasing correlation between market share and market power. But in particular instances firms with over 50 percent market share may have relatively little market power.</p> <p>However, the appropriate use for market share data is not in confirming which firms have market power, but in identifying those that most likely do not. A percentage of market share threshold can be set below which it would be assumed that a firm does not have dominance or SMP, and the investigation can be quickly dismissed.</p> <p>It is by no means clear where this level should be set. It will, for example, depend on the unit of market share measurement e.g. gross revenues; number of products traded etc. It might be considered that the principle task of the test is to set a floor for the percentage market shares below which there is little probability of enduring and significant market power. Unless firms shares reached this threshold, they would be assumed not to have dominance or SMP. Indeed, the administrative costs involved in investigating and perhaps taking action against firms that do not in fact have enduring dominance or SMP, increases the cost of errors, and thus suggests a broadening of the quantitative thresholds for market delineation i.e. a reduced risk that firms that do not in fact have SMP are judge to have SMP and are regulated accordingly, and an increased risk that firms that do have SMP are judged not to, and remain free to exercise market power free of interference by the authorities.<sup>3</sup></p> <p>The persistence of a high market share over time is an important factor. The ease with which new entrants might erode that market share and the relative shares of competitors are also relevant. A declining market share may indicate rising competition, but this does not preclude a finding of dominance.</p> <p>Where markets are embryonic or growing more quickly, high market shares are less indicative of market power than in more mature or</p>

<sup>3</sup> A reduced risk of type I errors and an increased risk of type II errors.

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	<p>slow-growth markets. Fluctuations in market shares may also indicate a lack of market power.</p> <p>Market shares may be assessed by volume or value of sales. The appropriate measure will vary between markets, although it is likely that the most appropriate measures will be volume for bulk products (e.g. wholesale conveyance minutes), and value for differentiated (branded) products (e.g. retail mobile products). Where a firm has a higher share by value than by volume it may indicate that it can price above rivals due to market power.</p>
Overall size of the undertaking	<p>This refers to the potential advantages, and the sustainability of those advantages, that may arise from the large size of an undertaking relative to its competitors. Areas where such advantages may exist include economies of scale ( see also separate criterion below) ; finance; purchasing; production capacities; and distribution and marketing. Such advantages may accrue in part due to other activities of the undertaking outside the market under consideration.</p>
Control of infrastructure not easily duplicated	<p>One example is control/ownership of a large network that a competitor would find costly and time-consuming to build. Such control may represent a significant barrier to entry.</p>
Network effects	<p>Network effects occur when the value for membership increases with the addition of new members. When referring to subscriber numbers it is meant the network of users.</p> <p>When interconnection between networks is not provided consumers have a powerful incentive to take this effect into account when considering which network join. The network with the largest subscriber base has a powerful advantage because of this, and a lack of seamless interconnection can be a powerful strategic asset for a dominant network. In a telecommunications network there are significant network benefits such that if entirely unregulated, a single network operator would likely achieve a national monopoly.<sup>4</sup></p>
The conduct of the parties	<p>The behaviour of the parties is one of the most important sources of information about whether an organisation has market dominance or not. Dominant firms are known to sometimes pursue certain types of known strategies.</p>
Technological advantages or superiority	<p>Such advantages may represent a barrier to entry as well as an advantage over existing competitors.</p>
Absence of or low countervailing buying power	<p>The existence of customers with a strong negotiating position, which is exercised to produce a significant impact on competition, will tend to restrict the ability of providers to act independently of their customers.</p> <p>Such power is more likely where a customer accounts for a large proportion of the producer's total output, is well-informed about</p>

<sup>4</sup> There are two principal means by which this will occur: through mergers and acquisitions, and through the normal attrition of competition.

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	alternative sources of supply, is able to switch to other suppliers readily at little cost to itself, and where it may even be able to begin producing the relevant product itself.
Easy or privileged access to capital markets/financial resources	Such access may represent a barrier to entry as well as an advantage over existing competitors.
Product/services diversification (e.g. bundled products or services)	Bundling may support dominance by foreclosing the market for part of the bundle to other suppliers, even where the different elements of the bundle are supplied separately. By bundling a service in the supply of which it is dominant with that of another service for which the market is at least potentially competitive, an operator with SMP can exclude rivals and so lever its dominance from the former to the latter market.
Economies of scale	<p>Economies of scale arise when increasing production causes average costs to fall. Economies of scale are common where the production process involves high fixed costs. One other way in which increasing scale can lower unit costs is by allowing greater specialisation, and in turn higher productivity.</p> <p>Economies of scale can act as a barrier to entry as well as an advantage over existing competitors.</p>
Economies of scope	<p>Economies of scope exist where average costs for one product are lower as a result of it being produced jointly with another product by the same firm. Cost savings may be made where common processes are used in production.</p> <p>Economies of scope are common where networks exist, as the capacity of the network can be shared across multiple products. Economies of scope can be a barrier to entry as well as an advantage over existing competitors.</p>
Vertical integration	<p>Vertical integration can promote dominance in two ways</p> <p>by making new market entry harder due to control of upstream or downstream markets</p> <p>through the potential ability to lever market power into upstream or downstream markets, thereby adversely affecting competition</p>
A highly developed distribution and sales network	Well-developed distribution systems are costly to replicate and maintain, and may even be incapable of duplication. They may represent a barrier to entry as well as an advantage over existing competitors.
Absence of potential competition	This refers to the prospect of new competitors entering the market within the timeframe considered by the review. The record of past entry is one factor that can be looked at, as well as potential barriers to entry such as those under 'Ease of market entry' below.
Barriers to expansion	There may be more active competition where there are lower barriers to market growth and expansion. However, the higher the barriers to

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	<p>entry into the market, the less significant the absence of barriers to expansion will be in assessing competition, because with high barriers to entry competition is less likely to extend beyond the existing market players.</p>
Ease of market entry	<p>The threat of potential entry may prevent incumbent firms from raising prices above competitive levels. However, if there are significant barriers to entry, this threat may be weak or absent. Incumbent operators may then be able to raise prices and make persistent excess profits without attracting additional competition that would reduce them again.</p> <p>The impact of these barriers is likely to be greater where the market is growing slowly and is initially dominated by one large supplier, as entrants will be able to grow only by attracting customers from the dominant firm. However, barriers to entry may become less relevant where markets are associated with ongoing technological change and innovation.</p> <p>Structural barriers plus any evidence of both potential and actual entry are relevant to the assessment, although lack of entry may also be a rational decision given price signals and potential profits. For example, not enough customers may be willing to switch given the level of potential savings available. Reviews should consider whether there is evidence that new competitors might have a significant impact within the time frame considered by the review.</p> <p>There are two broad categories of barriers to entry - strategic and absolute. Absolute barriers exist where firms own, have access to, or are granted privileged use of important assets or resources which are not similarly accessible to potential entrants. Strategic barriers arise due to the strategic behaviour of existing market players, for example through pricing behaviour (such as predatory pricing, price-squeezing, cross-subsidies and price discrimination) or through non-price behaviour (such as increased investment, promotion and distribution). Whilst structural and behavioural aspects can be interwoven, making the absolute-strategic distinction may better indicate the appropriate remedies to apply to address dominance.</p> <p>Sunk costs can be an important barrier to entry. These are costs which are needed to enter an industry but which cannot be recovered on exit – for example investment to set up a production plant or to build a network. Existing firms, which only have to cover ongoing costs, could set prices too low to allow entrants to both recover sunk costs and compete.</p> <p>Other potential barriers to entry are cited among the criteria listed above. Further examples are: patents and other intellectual property rights; legislative or other regulatory requirements; brand image (including high advertising); and distribution agreements.</p>

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### A1.2 Additional criteria

Criterion	Implication for assessment of market power
Excess pricing and profitability	<p>The ability to price at a level that keeps profits persistently and significantly above the competitive level is an important indicator of market power.</p> <p>In a competitive market, individual firms should not be able to persistently raise prices above costs and sustain excess profits. As costs fall, prices should be expected to fall too if competition is effective.</p> <p>Factors that may explain excess profits in the short term, such as greater innovation and efficiency, or unexpected changes in demand, should however be considered in interpreting high profit figures. Conversely, low profits may be more an indicator of the inefficiency of the firm than of effective competition.</p>
Lack of active competition on non-price factors	<p>Non-price competition refers to differentiation between products and providers. Differentiation may be both vertical (differences in quality) and horizontal (differences in terms of variety). The impact of differentiation will be greater to the extent that customers fully perceive the differences that providers are promoting.</p> <p>More differentiation may be expected where customer priorities are more oriented to quality and features of their service relative to low prices.</p> <p>In practice, the practical difficulties of monitoring retail offerings in detail may limit the analysis on this criterion to a very general level.</p>
Barriers to switching	<p>Limited customer ability to switch between providers increases the extent to which providers can act independently of their existing customers.</p> <p>Barriers might exist on the demand side or be maintained by suppliers. The former include the cost and practical difficulty of switching relative to the potential benefits, and customers' awareness of both their ability to switch and the procedures involved. Other potential barriers are the perceived quality of service and reputation of alternative suppliers, and customers' reluctance to take risks with alternative providers.</p>
Customers' ability to access & use information	<p>Limited customer access to and use of reliable information on prices and other aspects of the services can dampen competition by reducing the degree to which customers act upon differences between providers. As a result, providers are better able to act independently of customers. However, it is possible for active behaviour by relatively more aware customer segments to produce competitive effects disproportionate to the number of customers involved.</p> <p>This criterion is distinct from 'Barriers to switching' in that switching does not cover first time purchasers of a product. These</p>

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customers may be more numerous than switchers at certain stages of a product's life cycle.

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### A2 Annex 2 - Responses to The Consultation

The TRA received two responses to the consultation; one from Batelco and one from Kalaam Ltd.

Both respondents were concerned that two different market power terms appear in the Act – *Dominance* (sections 3 and 57) and *Significant Market Power* (SMP) (sections 3, 58 and 64). One respondent was concerned about the potential for confusion and inconsistency as a result of there being two separate market power tests in the Act. This respondent noted that the Act gave the TRA some flexibility in the way it interpreted the two terms, and urged that they not be used, ‘...as graduated tiers of “greater market dominance” (corresponding to “dominance” as defined in the Telecommunications Law), and a “lesser” form (corresponding to SMP)’. The respondent was concerned that the different regulatory objectives that underlie the two terms should be taken into account when using the terms in practice.

The other respondent was also concerned about the distinction between these two terms and suggested that in either case, *effective competition* should be the benchmark used to check whether a market needed regulatory intervention.

One respondent was concerned that that regulation not seek to overcome every conceivable difficulty faced by new entrants, and that any finding of dominance or SMP should be based on:

- The existence of barriers to entry,
- Strategic characteristics of the market, and
- The effects any regulatory mechanism would have on the market;

This respondent was also concerned that anticompetitive intent should not be inferred from aggressive competitive behaviour. The respondent further pointed out that many of the factors the TRA noted may be considered in deciding whether or not any firm had dominance or SMP in a relevant market, will not be reliable indicators for the purpose. The TRA acknowledges that many of the factors noted in the Consultation Document as indicators of market power, are not especially reliable, and thus the TRA will need to use these indicators with care. The usefulness of some of the factors listed in the annex will be in their indirect relationship to market power, such as might only suggest a greater likelihood that a firm would succeed with deterring entry by adopting a carefully designed strategy. Thus, factors like technological advantage, control of infrastructure, financial strength, if they are considered in any case, it is likely to be in order to review the importance of other factors. The TRA acknowledges that by themselves several of the factors listed in the annex carry no presumption of dominance or SMP. The criteria are broad, and in general neither represent necessary or sufficient conditions for a finding of dominance or SMP.

The respondent also suggested that the reference in the consultation document to ‘dominance in a specific market segment’ should be removed. The TRA considers that dominance should be related to a relevant market and not simply part of a relevant market. The TRA has therefore removed the term ‘market segment’ from the determination.